



The Leadership Molecule Hypothesis: Implications for Entrepreneurial Organizations

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Abstract. The topic of leadership in entrepreneurial organizations has received relatively little attention. The prevailing view is that leadership is an individual phenomenon. This paper proposes that the conventional notion of a “single heroic leader” in companies is an inadequate explanation how leadership actually works in entrepreneurial organizations as they evolve over time. Although it might *appear* that there is a single charismatic leader who determines the success of a company; if we look more closely there is typically a “core leadership team” (in the true sociological sense) with defined but overlapping and complementary roles. Specifically, this team is actually performing five key “strategic leadership functions” (defined below) as a collective unit rather than as a set of individuals. This team of leaders has been termed “the Leadership Molecule” (Flamholtz and Randle, 2008). This article addresses some key issues concerning leadership in entrepreneurial businesses: What are the core tasks of leadership in rapidly growing entrepreneurial businesses? Do leadership requirements change as a company grows and develops? If requirements do change, then how does leadership need to evolve at different stages of entrepreneurial growth? Can leadership in entrepreneurial firms continue to be exercised by a single individual as a company grows, or if not then what “form of leadership” is required? It also provides some empirical support for the proposed construct of the Leadership Molecule based on a study of entrepreneurial leaders in China.

Keywords: leadership, entrepreneurial leadership, leadership functions, strategic leadership, Leadership Molecule.

1. Introduction

Although much has been written about the personalities and *traits* of entrepreneurs and much has been written about leadership, both theory and empirical study of leadership in the context of rapidly growing entrepreneurial businesses is relatively sparse (Bass and Bass, 2008).¹ Accordingly, this article is addressed to some key issues concerning leadership in entrepreneurial businesses:

- What are the core tasks of leadership in rapidly growing entrepreneurial businesses?

1. For example, the very comprehensive *Handbook of Leadership* by Bass and Bass (2008) focuses upon the traits and styles of leadership; but not upon entrepreneurial leadership per se.

- Do leadership requirements change as a company grows and develops?
- If requirements do change, then how does leadership need to evolve at different stages of entrepreneurial growth?
- Can leadership in entrepreneurial firms continue to be exercised by a single individual as a company grows, or if not then what “form of leadership” is required?

These issues relate to two primary underlying aspects of leadership: 1) the “functions” performed by entrepreneurial leaders, and 2) the “form” that leadership is exercised (i.e., whether these functions are performed by a single leader or by a leadership team). These issues are relatively neglected in the literature of either leadership or entrepreneurship. The focus of leadership has been on leadership styles and traits (Bass and Bass, 2008), while the focus on entrepreneurship has intended to be on *the* entrepreneur as the founder of a new venture (Covin and Slevin, 2002).

2. Leadership Form and Functions in Entrepreneurial Organizations

The central thesis of this article is that the conventional notion of a “single heroic leader” in companies is an inadequate explanation how leadership actually works in entrepreneurial organizations as they evolve over time.² The conventional paradigm of business leadership is based upon the notion of a single leader (Baldracco, 2002; Conger and Kanungo, 1998; Kotter, 1990; Schein, 1985; Hersey and Blanchard, 1977) such as Howard Schultz at Starbucks or Steve Jobs at Apple. Although such leaders do undoubtedly exist (especially during the early stages of entrepreneurial growth), they are often, like the tip of an iceberg, the most visible component of an unnoticed or unrecognized “leadership unit.”

Although it might *appear* that there is a single charismatic leader who determines the success of a company; if we look more closely there is typically a “core leadership team” (in the true sociological sense) with defined but overlapping and complementary roles. Specifically, this team is actually performing five key “strategic leadership functions” (defined below) as a collective unit rather than as a set of individuals.³ This team of leaders has been termed the “Leadership Molecule”.⁴

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2. The constructs and hypotheses in this article are an outgrowth of direct clinical observation of the actual behavior of people in entrepreneurial organizations. It is an example of inductive theory and in that sense is similar to certain anthropological studies of actual observation of behavior in “tribes”.
 3. There have been a few prior studies dealing with the notion of shared leadership” as an alternative to the conventional model of the single leader.

Taken together, the key notion is that as entrepreneurial organizations grow they require a leadership molecule to perform the key functions of strategic leadership. This is termed the “Leadership Molecule Hypothesis.”⁵

3. Purpose

The primary purpose of this article is to present and develop the notion of the leadership molecule and the role it plays in entrepreneurial companies. It begins, in other words, to develop an alternative theory of leadership in entrepreneurial organizations, which is termed “the leadership molecule hypothesis.” This hypothesis is the outgrowth, as we shall explain, of inductive observation of actual business practice. Although limited, we will position this construct in relation to existing entrepreneurial leadership research.

This article also cites some empirical data to test and support the “Leadership Molecule hypothesis.” Finally, we shall examine the implications of this theory and research for the management of entrepreneurial firms.

4. Background: Accidental Discovery

Although most of the literature dealing with leadership focuses upon the individual as a leader, there has been previous recognition of the notion that leadership can be exercised by a team or group rather than by an individual.⁶ However, the notion of a “Leadership Molecule” as defined below has not been generally recognized.

Like the identification of the antibiotic properties of penicillin, the existence of the notion of a “leadership molecule” was an accidental discovery. It occurred as a by-product of organizational development work with several companies over many years.

4.1. The Form of Leadership

There was a moment of recognition of a common feature to several successful companies in managing rapid growth. Specifically, the author observed that a common aspect of these companies was the existence of a “core leadership team”

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4. The first reference to the notion of a “leadership molecule” was cited in in Flamholtz and Randle (2008).
 5. In brief, there are two components of the “leadership molecule hypothesis”: 1) that there are five key functions of strategic leadership and 2) that they are performed by a leadership “unit.” termed a “leadership molecule.” Each of these components is examined in this article.
 6. See Avolio, Sivasubramaniam, Murry, Jung, and Garger, (2003) “Assessing Shared leadership,” in Pearce and Conger (2003).

(in true sociological sense) with *defined but overlapping and complementary roles*.

The specific instance of recognition was at Starbucks Coffee. The core senior leadership team, as explained further below, was comprised of three leaders who worked as a team and possessed complementary skills and overlapping but semi-distinct roles.⁷

4.2. The Key Strategic Leadership Functions

This team was actually performing five key strategic leadership functions as a collective unit rather than as a set of individuals. The *five key leadership functions* performed by the core team functioning as a true unit (rather than as an ad hoc collection of individuals) were: 1) creating the vision; 2) defining and managing the organization's culture; 3) Coordinating and managing operations; 4) Overseeing systems development, and 5) *Leading innovation and change*.

Each individual (Schultz, Behar, and Smith) had his own defined "formal" role. Schultz was CEO; Behar was head of Retail operations, and Smith was the CFO. The formal roles were somewhat of a misnomer and only partially reflected (and partially obscured) the actual or real roles of each of these three individuals. In fact, Howard Schultz (the CEO) was primarily (but not exclusively) responsible for the vision and culture of Starbucks. However Schultz was also involved to some extent with operations and systems at Starbucks. Howard Behar, SVP and head of Retail operations was primarily responsible for Retail Operations (which at the time of this observation accounted for approximately 95% of Starbucks's revenues). However Behar was also involved to some extent with creating the vision and culture of Starbucks as well as its systems. Finally, Smith, who was formally CFO, was involved primarily with the development of the systems required by Starbucks, not just financial systems, but information systems, planning systems, human resources systems, and other systems as well. However, he too was involved in creating the vision and culture of Starbucks and to some extent with operations as well. All three were involved with innovation and change at Starbucks.

Taken together, Schultz, Behar and Smith were functioning not as a set of discrete individuals performing independent roles; they were functioning as a team performing a set of complementary but somewhat overlapping roles. They comprised what we have termed a Leadership Molecule.

7. The actual team consisted of Howard Schultz, CEO, Howard Behar, SVP Retail operations and Orin Smith, CFO.

4.3. The Catalyst for the Leadership Molecule Construct

I helped create this leadership molecule at Starbucks (without calling it that or thinking of it in those terms). During early 1994, when Starbucks was still a relatively small company, I was invited to coach the three senior leaders of Starbucks, consisting of Howard Schultz (then CEO), Howard Behar (then SVP of Retail Stores), and Orin Smith (then CFO). My initial assignment was to coach each of them individually and to work with them to “iron out some conflict and differences” which had emerged in the stress of building a company so rapidly.⁸ After this initial work, they became a very effective leadership team. I began to see them as an ideal senior leadership team: a set of very talented individuals with complementary capabilities, working as a true team.

The specific catalyst for the notion of the Leadership Molecule was the observation that people inside of Starbucks referred to them as “H2O.” This was a clever play on the initial letters of each individual’s name: (H)oward Schultz, (H)oward Behar, and (O)rin Smith. Clearly people within Starbucks saw the three as “a unit,” and not just three guys running a company.

That moniker started me thinking about other teams that I had observed in different companies: some with monikers such as: “The Three Musketeers,” “The Troika,” The “Gang of Four,” “Batman and Robin, and “The Ghost and the Darkness.”⁹ I realized, as discussed more fully below, that a nickname might be a “marker” or “DNA” signature for a true leadership team.

After the initial observation of this phenomenon in actual companies, I began to investigate it more systematically. I analyzed hundreds of cases of companies I had worked with and realized that where a “true team” existed, there was “high performance” and where it was lacking, performance tended to be low or even disastrous.

This in turn led to what can be termed the “Leadership Molecule Model” and “Leadership Molecule Hypothesis,” as explained below.

4.4. Related Previous Theory and Research

There is a vast body of research and theory on leadership. It can be summarized into various schools or classifications of leadership theory: 1) leadership trait theory, 2) leadership styles theory, and 3) contingency theories of leadership which has also been termed “situational leadership” (Stogdill, 1948; Likert, 1961; Fiedler, 1964). Although there has been some prior research and theory about “leadership forms” and “functions,” there has not been a formal

8. I began working with Starbucks in 1994 when it was still a relatively small entrepreneurial company of about middle market size.

9. The term “The Troika” was used at Google to refer to founders Sergey Brin, Larry Page and Eric Schmidt, who was hired to be CEO.

classification of leadership in terms of these two dimensions. This section focuses upon and reviews related prior theory and research on Leadership form and functions in an entrepreneurial context. It does not attempt to review all of literature on general leadership theory.

4.5. Related Research on Leadership Functions

The few studies that explicitly explore leadership in entrepreneurial contexts suggest that the key task of entrepreneurial leaders is influencing others to manage resources strategically in order to emphasize opportunity-seeking (entrepreneurship), and advantage-seeking behaviors (strategic management tasks such as building competencies) (Covin and Slevin, 2002; Ireland and Hitt, 1999; Ireland, Hitt and Sirmon, 2003). Although both opportunity seeking behaviors and advantage-seeking behaviors have been conceptualized as key leadership tasks, operationalizations of entrepreneurial leadership behaviors emphasize mainly opportunity seeking behaviors. For example, in the first paper validating this construct, Gupta, McMillan and Surie (2004) operationalize entrepreneurial leadership to include framing challenges so that others are motivated to accomplish goals, absorbing uncertainty, clearing paths by dissolving resistance, building commitment, and specifying limits to hold and sustain follower commitment.

4.6. Related Research on Leadership Forms

There have been a few prior references in the literature to the notion of “shared leadership” as an alternative to the conventional model of the single leader.

Heenan and Bennis (1999) examined several examples (from history and contemporary life of what they termed “great partnerships” of “co-leaders”). Their examples included Mao Tse-Tung and Chou En-Lai; Al Gore and Bill Clinton; and even Sherlock Homes and Dr. Watson! They also cited a few examples from business such as Bill Gates and Steve Ballmer, and Winthrop Smith, the “Smith” in Merrill Lynch, Pierce, Fenner & Smith. However, their focus was upon the “Second Banana,” the junior partner in a co-leadership situation. This was the person who served as “Robin” to someone else’s “Batman” in a “Dynamic Duo.” Their “case for co-leadership” tends to support the notion of a Leadership Molecule; but they do not conceptualize the key dimension of leadership which are shared, nor do they hypothesize the existence of shared leadership beyond two persons. Pearce and Conger (2003) have also presented a set of articles dealing with the notion of “shared leadership.”

Beyond what is cited above, there is very little in the literature related to this construct, and nothing per se about a “Leadership Molecule” with the exception of what I have previously written.

5. The Leadership Molecule Model and Hypothesis

The leadership molecule construct posits that there are five key strategic leadership functions or dimensions which must be (ought to be) performed by a core team, rather than a single individual.¹⁰ These are:¹¹

1. Creating the **vision**,
2. Defining and managing **culture**,
3. Coordinating **operations**,
4. Overseeing **systems** development, and
5. Leading and managing **innovation and change**.

Each of these leadership functions are defined below. Later we will cite some empirical research that supports this five factor theory.

5.1. The Leadership “Vision Function”

A vision involves defining what you want to achieve (presently and potentially) and communicating it to all involved. It involves creating a “picture” of what the future state will be like. This means that the vision function of leadership must define, communicate, and reinforce the vision for the company (Bass, 1990). For example, the vision of Starbucks defined during its early years was “to become the leading brand of specialty coffee in the North America.” By implication, this cedes the rest of the world to other competitors. This was intended as a strategic vision to permit Starbucks to develop and “niche” or stronghold with sufficient strength to “defend” itself against competitors such as McDonalds or other large fast food retailers with the financial resources to preempt Starbucks in the market. Once this was accomplished, Starbucks then proceeded to attempt to establish itself as a global brand with a global footprint.

10. There are other approaches to defining a “multi-factor leadership model” including research by Avolio, Bass, and Jung (1999); and Bowers and Seashore (1966) but they do not address the same issue as in the current model. In addition, the Bowers and Seashore model is more oriented to operational leadership rather than strategic leadership.

11. These five factors were first identified in Flamholtz and Randle (2008).

5.2. The Leadership “Culture Function”

The leadership culture function involves need to understand how to create and manage a firm’s culture. Culture consists of the company’s core values, beliefs, and norms that include the behavior of people. Our research has indicated that values need to be articulated for five key aspects of corporate culture: treatment of customers, treatment of people, standards of performance and accountability, innovation and openness to change, and company process orientation to things like decision processes, planning and communication (Flamholtz, 2001). Promoting values needs to be a focus of leaders on an on-going basis, versus something that is focused upon only when there is a need to change (Barney, 1986).¹²

5.3. The Leadership “Operations Function”

In this context, operations refer to the day to day activities necessary for the functioning of the business. The leadership operations function involves oversight of day to day operations. This is sometimes (but not always) the responsibility for a “Chief Operating Officer.”

The operations functions are organization specific; that is, they vary from firm to firm, but the leadership function of operations is the same regardless of the specifics. It involves insuring the effective execution of the strategic plan and ensuring the smooth functioning of day to day business activities or what is sometimes referred to as “making the trains run on time.”

5.4. The Leadership “Systems Function”

As an organization grows or changes, it requires infrastructure to support it, both processes and systems. The leadership systems function involves the development of the infrastructure (both operational systems and management systems) required by an organization as it grows. These are the systems required to support operations and not the day to day operations per se. For example, logistics and information systems are needed to support day to day operations of Wal-Mart; but they are not the day to day operations of the company’s trucks to deliver goods and stock inventories per se.

Operational systems include all of the systems required to facilitate the operations of the business on a daily basis including sales, production or service delivery, accounting, human resource, and information systems. Management systems are the systems required for the growth and development of a business.

12. For a discussion of the management of corporate culture in entrepreneurial firms, see Flamholtz and Randle (2009), and Flamholtz and Randle (2011).

They include the planning system, organization structure, management development, performance management and culture management systems.¹³

This is not to suggest that leaders need to understand all of the technical details of all organizational systems. Instead, they need to have a more holistic understanding of how the various systems related to one another. They can bring in technical experts to assist with the details.

5.5. The Leadership “Innovation and Change Function”

The leadership “innovation and change function” deals with the organization’s ability to adapt to change and innovate (Kotter, 1996; Gilley, Dixon, & Gilley, 2008). Innovation and change be in terms of either or both of a firm’s products and processes. This function can be viewed as the essence of entrepreneurship per se (Drucker, 1985). For example, the development of the “i-technology” platform by Apple has facilitated its becoming one of the most valuable companies in the world.

6. Emergence and Development of a Leadership Molecule in Practice

The Leadership Molecule tends to emerge as a function of the stage of development (growth) of a company. At the initial new venture stage, the leader is typically a one man (or one woman) band performing all of the required strategic leadership functions. This happens whether or not a single individual possesses all of the competencies to execute each of these leadership functions.

As the organization grows, there is a need for managerial specialization and the development of a set of people to perform these functions rather than a single individual. Even when a single person possesses all of the capabilities to perform all of these leadership tasks, as an organization increases in size it becomes more and more difficult to perform all functions.

As a result, a set of individuals performs tend to emerge to perform these functions with one person typically focused on vision and culture, another on operations, and the third the development of systems. If this set of individuals is not functioning as a team, then each person consists of an individual “atom.”

Sometimes the set of individuals morphs into a true team with overlapping and complementary responsibilities. Only when the set of individual atoms has

13. As a side note, my experience in China indicates that this is an area where Western (European and American managers) have an advantage vis a vis their Chinese counterparts. Western managers are used to thinking in systems terms, while many Chinese executives are not. Nevertheless as our empirical data shows there are some Chinese managers who are good at systems development, though this is not the norm.

transformed into a true team or “molecule” does the so-called leadership molecule exist.

6.1. Stages of Development of the Leadership Molecule

There are four classic stages of growth from an organization’s birth through its development as a “mature” business, as shown in Table 1 (Flamholtz, 2003; Flamholtz and Randle, 2007):

- Stage 1 the “new venture” stage
- Stage 2 the “expansion” stage
- Stage 3 the “professionalization” stage, and
- Stage 4 the “consolidation” stage

The nature and development of the Leadership Molecule at each stage is described below.

6.2. Stage 1 the “New Venture” Stage

During the first stage of growth of an entrepreneurial firm, a single strong leader tends perform all five functions by himself (or herself), unless the firm is founded by more than one person. In circumstances where a firm is founded by more than one person, there is sometimes a predetermined division of labor that approximates a Leadership Molecule. However, it also happens that when there are two people (or even sometimes more) involved they will not necessarily comprise a true Leadership Molecule. For example, Apple Computer (now “Apple”) was founded by Steve Jobs and Steve Wozniak. Steven Jobs was the visionary and cultural leader, while Wozniak was the developer of the technology for the Apple Computer. He was neither an operations nor a systems person. Similarly, at Ben and Jerry’s (the ice cream company) both Ben and Jerry were entrepreneurial types who were visionaries and “product guys” and did not possess the other skills required to form a Leadership Molecule.

Table 1: Stages of growth¹⁴

Stage	Description	Critical Development Areas	Approximate Organizational Size (in sales) in US \$	
			Manufacturing Firms	Service Firms
I.	New venture	Markets and products	Less than \$1 million	Less than \$0.3 million
II.	Expansion	Resources and operational systems	\$1 - \$10 million	\$0.3 - \$3.3 million
III.	Professionalization	Management systems	\$10 - \$100 million	\$3.3 - \$33 million
IV.	Consolidation	Corporate culture	\$100 - \$500 million	\$33 - \$167 million

6.3. Stage 2 the “Expansion” Stage

As the firm evolves in the expansion stage, there still tends not to be a true Leadership Molecule. Companies in stage 2 will not typically have the resources required to hire people with the differentiated skills required, and it will still tend to be managed as a one person band.

6.4. Stage 3 the “Professionalization” Stage

The classic moment that the molecule is required and ought to emerge is Stage 3. At this point the company will have the need and the resources to recruit and hire the people required to create a true Leadership Molecule. The people added should complement the skills and focus of the entrepreneurial founder. It should be noted the need and the resources available to create the molecule will be less in the early phases of Stage 3 than in the later phases.

6.5. Stage 4 the “Consolidation” Stage

By the time an organization reaches stage 4, the Leadership Molecule ought to be in place. This is one of the “secrets” to the success of several high performing entrepreneurial companies like Starbucks. In addition, as described below, Flamholtz and Narasimhan-Kannan (2011) have shown, there is a statistically significant relationship between the existence of a Leadership Molecule and the extent of a firm’s degree of organizational development.

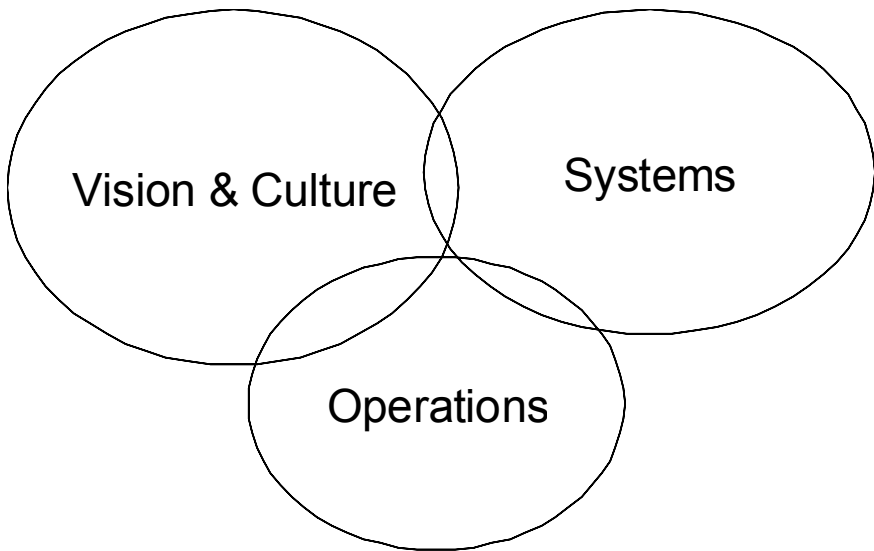
14. Source: Flamholtz (2003).

7. Core Roles of the Leadership Molecule

As implied above, there are certain “core roles” comprising the Leadership Molecule. These roles are related to the performance of individual leadership functions or combinations of those functions.

There is a tendency for these core roles to combine certain of the leadership functions. In addition, more than one person can perform aspects of a given leadership function. As a result, there is typically overlap between the people comprising the Leadership Molecule, as seen in Figure 1.

Figure 1: The Classic Form of the “Leadership Molecule”



7.1. Vision and Culture Role

One classic core role is the person who combines the “vision” and “culture” functions. This is most often performed (but not always) by the CEO of a company. Sometimes vision and culture are not performed by the same person.¹⁵ It depends upon their competencies and, to some extent, personality. Nevertheless, the classic role is for a combination of vision and culture performed by a CEO.

15. At PacifiCare, prior to its purchase by United Healthcare, Terry Hartshorne, CEO, was responsible for culture, while Alan Hoops, COO, was responsible for (or at least played a leader role in defining) the company’s strategy vision. See Flamholtz and Yvonne Randle (2008).

7.2. Operations Role

Another classic core role is “operations.” This can be the role of a COO or another executive charged with day to day operations. For example, Howard Behar who was responsible for the Retail stores at Starbucks was the member of the leadership team responsible for operations, even though he was never COO.¹⁶

7.3. Systems Role

The third classic core role is “Systems.” This involves responsibility for initiating the need for and overseeing the development of various operational and management systems, ranging from budgeting and planning systems to HR and logistics systems. This role might never even appear on an organizational chart, but it exists in the informal organization and in the Leadership Molecule. It is sometimes performed by a CFO, because that person tends to think in systems terms. It is also performed by an SVP of HR, or sometimes others. It refers not to the designer of systems but to the person responsible for the oversight of the development of systems.

7.4. Innovation and Change Role

There does not tend to be a defined role for the innovation and change function of leadership; rather, this tends to be performed by the Leadership Molecule as a whole.

8. Structural Variations (Forms) of the Leadership Molecule

As in any molecule in nature, there are various structural forms which can occur in an organization. Although the most common structure is a set of three people comprising the leadership molecule, three is not a magic number. Sometimes it is a team of two, and occasionally a team of four.

Where the molecule consists of two people, this is sometimes referred to as “the Dynamic Duo,” a term which owes its origin to the Batman and Robin myth. A good example of this is the duo of William (“Bill”) Gates and Steve Ballmer of Microsoft (Heenan & Bennis, 1999).

16. We have already noted that at times operations can be split between two people, with one typically focusing upon sales or customer operations and the other focusing upon “manufacturing” or service delivery operations.

Although it is theoretically possible for a Leadership Molecule to be comprised of five or possibly even more people, we have never observed this in practice.

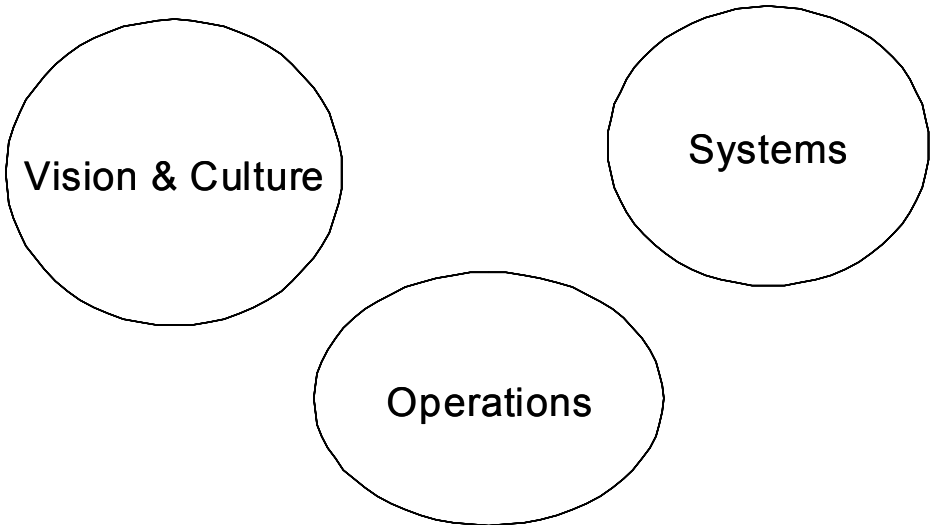
Most often, there is a core team of three people performing the five key leadership functions identified above. For this reason we refer to the three person Leadership Molecule as the “classic form” or structure.

In the classic form, the first four leadership functions exist as an integrated unit performed by three people.¹⁷ An example of this was “the Troika” at Google.¹⁸ This is the so-called “Troika” at Google, which (until recently) consisted of founders Sergey Brin, and Larry Page, and Eric Schmidt, who was hired to be CEO. As described above, another example of this form was found at Starbucks Coffee.

This classic form of the leadership team as a molecule was shown schematically in Figure 1.

In contrast to the Leadership Molecule as shown in Figure 1, there are many times when there are three people who comprise a senior leadership “group” (but not a true team). This is shown schematically in Figure 2, where the three people comprise “three atoms in search of a molecule.”

Figure 2: Three Atoms in Search of a Molecule



17. The fifth function innovation and change is not shown because it is performed by the team as a whole and not the primary focus of a single individual.

18. The core senior leadership team at Google was known there as “The Troika”, a reference to the three horse Russian slay.

8.1. When the Three Atoms Are Not a “Molecule”

What happens when the three atoms do not comprise a molecule but are merely isolated “atoms”? When this occurs, there are a variety of dysfunctional behaviors or consequences. These are indicated by symptoms of lack of a cohesive Leadership Molecule:

- There is significant conflict.
- The organization tends to be “cautious.”
- There tends to a great deal of political behavior
- There tends to “organizational tribes.”
- There tends to a culture of “you stay out of my territory and I will stay out of yours.”
- There tends to a lack of communication across the organization.
- People resist change because of the danger of “crossfire.”

In this situation when there is not a Leadership Molecule, organizational success tends to be suboptimal. There also tends to be significant conflict not only in the people comprising the senior leadership team but also throughout the organization as a whole. As a result of the lack of alignment among the three large “organizational gorillas,” people tend to be “cautious.” They do not want to “cross swords” or offend any of the senior leadership team so they tend to keep quiet and proceed with caution. This obviously results in less innovation throughout the organization. It also tends to result in political behavior of “organizational tribes” or silos.

There also tends to a culture of “you stay out of my territory and I will stay out of yours.” This leads to a lack of coordination and cooperation. It also leads to a lack of communication across the organization. People also tend to resist change because of the danger of “crossfire” among the gorillas.

These symptoms are each problems in themselves, but they are also symptoms of an underlying systemic problem: the lack of a cohesive Leadership Molecule.

I have observed several examples of this phenomenon in practice. In one instance, the Chairman and CFO were aligned and the CEO was “odd man out.” He was eventually squeezed out of the organization. In another instance, the founder and CEO was isolated from his two most senior leaders, the COO and CFO. The latter were termed the “Ghost and the Darkness,” by members of the

organization, aptly named after two man-eater lions of Tsavo, Africa that were celebrated in the film of the same name.¹⁹

9. The “Marker” or Signature of the Leadership Molecule

Where these core leadership teams which we have termed the Leadership Molecule exist, they are almost always recognized by the organization, and sometimes, but not always, have a nickname. As previously noted, they might be known as “The three Musketeers,” “The Dynamic Duo,” the “Four Musketeers;” or, as above, if they are dysfunctional in nature “The Ghost and the Darkness.”

As noted above, at Starbucks, the core team of Howard Schultz, Howard Behar, and Orin Smith were known as “H2O,” a play both on their initials and the chemical formula for water which is the foundation for coffee. At another company, there were two groups with nicknames: the Three Musketeers, and the Four Musketeers. This was recognition that there was an inner core of three people and a fourth member who was an “insider” but not quite the equal of the other three.

10. The Leadership Molecule and Organizational Success

At the outset of this paper, we stated that we observed that the existence of a Leadership Molecule “... a common feature to several successful companies in managing rapid growth.” What causes a “Leadership Molecule to exist”? Does it occur by accident or can it be created by design? What happens to organizational success when a previously existing Leadership Molecule disintegrates?

10.1. The Accidental Leadership Molecule

A leadership molecule can occur as a natural by-product of day to day operations as well as by design. Managers understand that they should be a “team.” As they work together, a true team can emerge. This would be a group that thinks of itself as a “team,” and has defined but overlapping roles corresponding to the five core roles of the Leadership Molecule.

19. The 1996 film starring Michael Douglas and Val Kilmer released by Paramount Pictures, was titled “The Ghost and the Darkness,” and was based upon the book by John Henry Patterson, The Man-Eaters of Tsavo, Macmillan and Company, Ltd, 1907. Colonel Patterson was a British Military Engineer engaged to build a bridge at Tsavo, Kenya.

10.2. Design of a Leadership Molecule

Leadership molecules can also be created by design. The steps involved are:

1. Definition of the core roles (as described above),
2. Selection of individuals to occupy or perform those roles, and
3. Development of a true molecule.

The first two are analytic steps. The third is a process of creating a true team from a collection of individuals. For example, when I began working with Starbucks as a consultant in 1994 I was asked to coach each of the top three leaders individually and then work with them to help resolve “issues.”²⁰ As Orin Smith stated (in giving me this assignment): “We have a Tiger by the tail, and it is creating a great deal of stress and even conflict. We have one ‘bullet’ and we need to get this right”²¹

11. Empirical Support for the Leadership Molecule Model

Recent empirical research has supported the existence of the leadership molecule (Flamholtz & Narasimhan-Kannan, 2011).

This research involved an empirical test of the Leadership Molecule model and related hypotheses. The test was executed as part of an executive coaching program conducted for 40 very senior leaders companies in China. All forty participants were enrolled in the “CEO Leadership Program” of for Cheung Kong Graduate School of Business, Beijing and Shanghai China. The intent of the program was to enhance the leadership skills of the participants. The research methodology and results are described below.

11.1. Participants

All participants were CEOs or Chairmen (women) of their companies. All ranged in age from 42 to 48. There were approximately 85 % men and 15% women participating in the program. All were responsible for companies that were rapidly growing (more than 50% in revenue growth per year). All companies ranged in size from 600 million RMB (approximately \$100 million US) to 35 million RMB (approximately \$ 6 billion US).

20. The three individuals were Howard Schultz, CEO, Orin Smith, CFO, and Howard Behar, SVP of Retail Operations.

21. Personal communication with the author in February, 1994.

Participating industries included consumer products, financial services, and real estate development.²²

11.2. Research Questions

The Leadership Molecule model leads to the following research questions:

1. Are there five leadership functions as hypothesized in the Leadership Molecule model?
2. Does the existence of the leadership molecule impact organizational effectiveness and financial performance?

11.3. Hypothesized Leadership Functions

The Leadership Molecule model hypothesizes five strategic leadership functions as follows: 1) vision, 2) culture, 3) operations, 4) systems, and 5) innovation and change. The first research question addressed by this study is whether the five leadership factors hypothesized by the model are confirmed to exist per se.

11.4. Impact of Leadership Molecule on Organizational Effectiveness and Financial Performance

The second research question addressed by this study is whether the Leadership Molecule impacts organizational effectiveness and financial performance.

11.5. Research Design

The data for this study was collected as a part of the coaching program for the forty participants. Participants were told that they would receive coaching and feedback up on their own leadership and their organizations effectiveness.

We have developed a scale to measure the Leadership Molecule. It is termed the “Leadership Profile” survey. The “Leadership Profile” instrument was designed to assess their perception of requirements of their roles in terms of the five key leadership functions capabilities as well as their perceived capabilities along these dimensions.

22. These are the type of industries that are open to entrepreneurs in China.

The Leadership Molecule scale has been validated with 213 participants from 31 rapidly growing entrepreneurial small businesses based in China (see Flamholtz & Kannan-Narasimhan, 2011)

Participants were asked to complete two surveys: 1) the “Leadership Profile” survey, and 2) a “Survey of Organizational Effectiveness.” The first was developed specifically for this project. The latter was a previously developed and validated instrument.

The “Leadership Profile” instrument was designed to assess their perception of requirements of their roles in terms of the five key leadership functions capabilities as well as their perceived capabilities along these dimensions.²³ The “Survey of Organizational Effectiveness” had previously been shown to have predictive validity as leading indicators of financial performance.²⁴

The statistical tests and result are reported in (Flamholtz & Narasimhan-Kannan, 2011).

A factor analysis was performed on the leadership profile and a regression analysis was used to test the effect of the existence of the leadership molecule on two measures of organizational effectiveness (using previously validated survey instruments).

The tests confirmed the existence of these five roles in managing entrepreneurial organizations. The regressions analysis indicated that there was a statistically significant relationship between the existence of the Leadership Molecule and the measures of organizational effectiveness. It was significant at the 0.001 level!

Stated differently, this indicates that the existence of the Leadership Molecule is related to organizational effectiveness, which in turn is a driver of financial performance (Flamholtz, 2003).

There was also a significant positive relationship between the existence of a leadership molecule and overall organizational effectiveness. There was also a significant negative relationship between Leadership Molecule and growing pains in rapidly growing entrepreneurial business.

12. Implications

One of the major implications of this article is that we need a new paradigm of leadership entrepreneurial firms. Previous leadership theory has tended to focus primarily on leadership in general and not specifically in entrepreneurial firms. In addition, previous leadership theory and research has tended to focus only peripherally upon the forms of leadership and its functions.

23. The author acknowledges Ning Chen, Ph.d, Clarion University, for translating the Leadership Profile Survey into Chinese.

24. See. Flamholtz (2003); and Flamholtz, E. (2009).

The “theory” of the Leadership Molecule (or the “Leadership Molecule hypothesis”) contradicts or at least supplements the conventional notion that there is a single, great corporate leader, who is an individual of extraordinary capabilities and possibly charisma, and who is responsible for a heroic effort in either building or revitalizing an organization. Even where such leaders exist (or have existed in the past) in organizations (e.g., Howard Schultz at Starbucks), a closer examination would find a core team typically consisting of three individuals with overlapping and complementary skills.²⁵ Conversely, where this core team does not exist, the company’s development and performance is likely to be less than optimal.

During the early stages of organizational growth, a single “heroic” leader might well be able to perform all of the strategic leadership functions. However, as the company grows in size the need for a Leadership Molecule will increase.

Further, where this molecule has existed and then “disintegrates” (i.e., Starbucks), the company’s fortunes are likely to decline sometimes precipitously. The decline in Starbucks can be attributed to the disintegration of their leadership molecule, consisting of Howard Schultz, Howard Behar, and Orin Smith.

The Molecule Theory of leadership also has implications for executives, Boards, and venture capitalists. Executives who comprise a company’s senior leadership need to ensure that the five key leadership capabilities/functions are represented on the senior team. However, at present, people do not think in terms of this construct since it is not developed in the literature.²⁶

Since Boards, executives, venture capitalists and other do not think in these terms in the way we are defining it here, the creation of a true Leadership Molecule occurs currently only by change or accident alone. What is proposed here is that its creation must become a specific organizational objective. When Howard Schultz sought to replace himself and his core team at Starbucks, it is doubtful that he thought in terms of a Leadership Molecule. He hired Jim Donald, an experienced retail executive from Wal-Mart, who was ultimately fired. The problem was as much Schultz’ failure to recognize the need for a Leadership Molecule as it was a lack of competence by Donald.

Another implication for action is that it is not just a matter of putting a set of ad hoc individuals together to create the molecule; they need to be able to be effectively combined – that is, work together – in a manner that supports organizational development. This typically will require some team building, either time for the molecule to gestate naturally or to before its development to be accelerated by coaching and special team building activities.

Thus Boards responsible for selecting a company’s CEO need to focus on the entire Executive team – working to ensure that the team possesses the core “atoms” – versus selecting a single individual. Similarly, venture capitalists need to build a top management team capable of successful scale up of a new venture

25. The core team was Howard Schulz, CEO; Howard Behar, SVP Retail; and Orin Smith, CFO.

26. A comprehensive search of the literature indicates that this concept does not exist and is novel.

so that, for example, it becomes Starbucks rather than Coffee Bean and Tea Leaf or any other similar company.²⁷

The message can be applied in the real world because it provides a “template” for building a successful top management team. It identifies the competencies required and the need for the individuals to function as a true team rather than a collection of individuals.

13. Conclusion

This article offers an alternative to the conventional paradigm of business leadership that is based upon the notion of a single “heroic” or charismatic leader such as Howard Schultz at Starbucks, or Steve Jobs at Apple, especially in entrepreneurial firms. The overall intent of this article, then, has been to provide an alternative view of effective senior leadership.

In brief, the effective senior leadership of organizations depends more upon the skills and capabilities of a true executive team *performing a set of leadership functions as a team*, and not just either a single “heroic leader” or a collection of discrete individual who are called a team but are not a true team in a sociological sense.

27. This is again based upon actual observation of the differences between these two companies and not a random example.

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