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This is the published version of a paper published in *Scandinavian Journal of Management*.

Citation for the original published paper (version of record):

Gaim, M., Wåhlin, N. (2016)

In search of a creative space: A conceptual framework of synthesizing paradoxical tensions.

*Scandinavian Journal of Management*, 32(1): 33-44

<http://dx.doi.org/10.1016/j.scaman.2015.12.002>

Access to the published version may require subscription.

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# In search of a creative space: A conceptual framework of synthesizing paradoxical tensions



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## ARTICLE INFO

### Article history:

Received 5 April 2013

Received in revised form 30 November 2015

Accepted 14 December 2015

Available online xxx

### Keywords:

Design thinking

Organizational design

Paradoxical tensions

Symmetric organizational form

Synthesizing

## ABSTRACT

We examine paradoxes in organizations and the organizations' ability to deal with the resulting paradoxical tensions. Paradoxes constitute contradictory yet interrelated organizational demands that exist simultaneously, with the resulting tensions persisting over time. Irrespective of the prevailing evidence that engaging paradoxes leads to peak performance in the short-term, which reinforces long-term success, the question of how this might be done remains perplexing. Thus, based on pragmatic philosophy, this paper aims to increase our understanding of what constitutes a paradox and suggests a conceptual framework from which organizations and their members can frame and cope with tensions that result from paradoxes. Specifically, we conceptually map a way to achieve a synthesis of paradoxical tensions that is informed by design thinking. This synthesis is said to occur when competing demands are simultaneously fulfilled to their full potential. In this paper, design thinking – as a management concept – is used to refer to the interplay between perspective, structure, process, and mindset. It provides an alternative framing of how organizations approach paradoxes and deal with the resulting tensions.

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## 1. Introduction

In contemporary organizations, competing demands are inevitable and ubiquitous features (Lewis, 2000; Sanchez-Runde & Pettigrew, 2003) that exist beyond management's control (Clegg, Cunha, & Cunha, 2002). Such competing demands require simultaneous attention and are often viewed in contrasting terms. They include, for example, the needs for certainty and flexibility (Thompson, 1967), for stability and change (Mintzberg, 1987), for exploitation and exploration (March, 1991), and for efficiency and flexibility (Adler, Goldoftas, & Levine, 1999). These simultaneously occurring needs have been conceptualized and approached in terms of dilemmas, trade-offs, dialectics, dualities or paradoxes (Achtenhagen & Melin, 2003; Smith & Lewis, 2011; Westenhof, 1993). However, this list is by no means absolute. For a deeper conceptual depiction, some authors turn to metaphors, mythologies, and ancient philosophy. For instance, Rothenberg (1979) and Sjöstrand (1994) used the Roman god Janus to emphasize the capacity needed to deal with competing forces at work. Morgan (1986) used the Taoist philosophy from ancient China represented by the symbol of Yin and Yang as a way to describe flows of

complementary yet opposite energies. And finally, Barry and Rerup (2006) used the Scylla and Charybdis from the Odyssey to symbolize the navigation between polarities such as rigidity and chaos.

Given today's global and dynamic environment, competing demands in organizations are intensifying (Smith & Lewis, 2011; Lewis & Smith, 2014) and are becoming pervasive in contemporary innovation (van Dijk, Berends, Jelinek, Romme, & Weggeman, 2011). Managing the tension resulting from competing demands is becoming necessary for effective innovation to occur (Andriopoulos & Lewis, 2009; Norman, Palich, Livingstone, & Carini, 2004; Tse, 2013; Garud, Gehman, & Kumaraswamy, 2011). However, when organizations are faced with these competing demands, they often tend to choose one or the other, compromise between them, or attempt to reconcile them. This happens for many reasons—for example, organizational members' need to produce consistent and reliable outcomes (Martin, 2007a,b), or being compelled by their cognitive limits to seek certainty (Tse, 2013), or attempting to simplify a complex reality (Bartunek, 1988). It is also related to human beings' general tendency to see the world in black and white terms, which is a false dichotomy. In this case, Dewey, one of the leading proponents of pragmatism, stated that mankind, in general, thinks in terms of extreme opposites. We tend to formulate our beliefs in terms of “either–or”, between which alternatives we recognize no intermediate possibilities (1938a:17). Similarly, Cooper (1986) claimed that we are given to thinking in

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binary terms, privileging one alternative over the other. Such thinking, when it relates to management practices, is rooted in formal logic (Ford & Ford, 1994), which defines entities based on “what they are” and “what they are not” (Norman et al., 2004). Thus, this formal logic lacks the ability to integrate contradictions and engage competing demands (Norman et al., 2004; Tse, 2013). When the need for logic and internal consistency overrules contradictions, one value is implicitly chosen over the other (Van de Ven, 1983). Order is assumed over change, ends over means, individuals over collectivity, or vice versa (Cameron & Quinn, 1988, p. 7). Dewey claims that any outcome that leads to an excess or deficiency of either demand, or an isolation of one from the other, is undesirable and characterizes such a state as an unaesthetic vice (Pappas, 2008, p. 78).

In organization studies, the risk of an unaesthetic vice occurs when competing demands are treated as dilemmas, for example. In that case, to manage the resulting tension, one demand is prioritized at the expense of the other. Similarly, treating competing demands as a trade-off leads to compromise and reconciliation (Eisenhardt, 2000). In both cases, the inclination towards one of the needs exacerbates the need for the other (Clegg et al., 2002; Sundaramurthy & Lewis, 2003) and the tension is therefore suppressed. Lewis (2000) believed that these typical approaches to analyzing and managing competing demands are inadequate.

In this paper, we start with the notion that the way competing demands are conceptualized affects the way they are approached and dealt with (Norman et al., 2004; Smith & Lewis, 2011). That is to say, how competing demands are framed (for example, as dilemmas or paradoxes) prescribes the response that could lead to either vicious (choosing the one over the other, compromising) or virtuous (engaging both, synthesizing) cycles. Although we are not claiming that competing demands should be framed as paradoxes at all times, we stress that framing competing demands as paradoxes prevents organizations from picking one demand over the other or inclining towards one. Rather, framing competing demands as paradoxes helps organizations recognize that these demands can and should coexist (Clegg et al., 2002; Smith & Lewis, 2011; Tse, 2013), leading to creative alternatives that engage both (Smith, 2014; Eisenhardt, 2000). Accordingly, we construe competing demands as paradoxes defined as contradictory yet interrelated organizational elements that exist simultaneously, the resulting tensions of which persist over time (Smith & Lewis, 2011).

If one is to wear the paradox hat, organizing will inherently juxtapose the contradictory yet interrelated elements (Lewis, 2000). In this regard, several studies have shown that organizations that pursue competing demands simultaneously (i.e., as paradoxes) are more successful in a dynamic environment (Tushman, Smith, Wood, Westerman, & O'Reilly, 2010; Raisch & Birkinshaw, 2008; Tse, 2013; Lewis & Smith, 2014). For instance, Smith & Lewis (2011) showed how doing so leads, in their words, to top performance in the short run and reinforces long-term success. Accordingly, to understand, describe, and manage the resulting paradoxical tension, theoreticians and practitioners are shifting from a tunnel-vision, non-synthesized “either-or” thinking that emphasizes only one element of the tension towards a more synthesized approach based on both-and, best-of-both, neither-nor thinking that engages both demands (Smith, 2014; Stroh & Miller, 1994). In line with this, organizations are increasingly adopting paradoxical frames (Miron-Spektor, Gino, & Argote, 2011), paradoxical lenses (Smith & Lewis, 2011), paradoxical logic (Norman et al., 2004), and integrative thinking (Martin, 2007a,b), which makes synthesis possible.

Synthesis, according to Poole and Van de Ven (1989), seeks a view that engages paradoxical tensions. Clegg et al. (2002) see synthesis as a symmetrical relationship that occurs when both

demands are simultaneously fulfilled to their full potential. However, how to bring a paradoxical situation into awareness and manage the resulting tension remains in question (Jules & Good, 2014). And, this calls for a wider perspective and a mindset that works with the intricacies of paradoxes and paradoxical tensions.

In response to a wider perspective and a readiness to engage competing demands, in addition to dissecting what constitutes paradoxes, this paper aims to elaborate how design thinking, as a management concept (Johansson-Sköldberg, Woodilla, & Çetinkaya, 2013), can help organizations and their members deal with paradoxical tensions. Utilizing the elements of design thinking can help us, we suppose, deal with the paradoxical tensions of, for example, exploration and exploitation (Martin, 2009; Dunne & Martin, 2006), especially when there is pressure to engage both. Design thinking in general, though, has been criticized for being loose, elusive and confusing in its conceptualization, leading to various interpretations (Johansson-Sköldberg et al., 2013). Moreover, as practitioner-led (such as Tim Brown of IDEO and David Kelly of IDEO and Stanford's d.School), a comprehensive theoretical framework is still missing. There is also a lack of scholarly works to balance the overstated praise bestowed upon it by the practitioners (Carlgren, 2013). Nevertheless, we consider that design thinking's integrative approach and the mindset it instills makes it relevant to organization studies, particularly to the challenge of engaging paradoxes. Accordingly, we present a deeper understanding of synthesis using design thinking rooted in pragmatic philosophy. Accordingly, this paper operationalizes design thinking as the interplay between perspective, process, structure and mindset rooted in the fallibilists' epistemology of pragmatism, and central features in pragmatic philosophy such as pluralism, abduction, and unaesthetic vice. By doing so, the paper conceptually maps a way to achieve a synthesis of paradoxical tensions informed by design thinking. To make our operationalization of design thinking clear and its connection to pragmatic philosophy visible, we used two real-world illustrations. We used the short-lived spaghetti organizational form that was implemented by Oticon in the early 1990s to show the risk of an unaesthetic vice arising in the structural features of design thinking. In addition, we used Bob Young and his successful transformation of Red Hat in the mid-1990s to illustrate the integrative perspective based on pluralism, an open mindset based on evolutionary ontology and the fallibilist epistemology of pragmatic philosophy. In addition, we used Red Hat's illustration to explain an abductive logic to characterize the process aspect of design thinking. This responds to the often-mentioned shortcoming in design thinking that it lacks theoretical foundation.

This paper is structured as follows: in the next section, we discuss different conceptualizations of competing demands and explain why paradoxes matter. This is followed by the responses to organizational tensions. In this section, we place synthesis in a context in which it stands in comparison with other “non-synthesized” responses. We then introduce pragmatic philosophy and present the core notions of this philosophy that are useful in this paper's context. Using pragmatic philosophy as a background, we then describe our version of design thinking and its building blocks, which make a synthesis of paradoxical tensions possible. We conclude the paper by outlining the theoretical and practical implications of our framework.

## 2. Theoretical background

### 2.1. Competing demands

Competing demands have been conceptualized in different ways. At times, these multiple concepts have led to ambiguities.

The varying conceptualizations mean that what some people consider a trade-off may be experienced by others as a paradox (Stoltzfus, Stoh, & Seibold, 2011). Therefore, the varying concepts affect the way competing demands are described and how the resulting tensions are dealt with. The concepts used to capture the notion of competing needs in organization studies include trade-offs, dilemmas, dialectics, dualities, and paradoxes.

Dilemmas are described as an either–or situation in which one alternative must be preferred over the other (Janssens & Steyaert, 1999; Westenholz, 1993). Achtenhagen and Melin (2003) claimed that dilemmas occur when it is hard to choose between two equally beneficial elements. Trade-offs arises from a gradual exchange in which having one element means having less of the other (Achtenhagen & Melin, 2003). Similar to dilemmas, a decision is made in favor of one demand over the other. A dialectic is a pattern that always begins with a thesis followed by an antithesis, and is then resolved by integration (Smith & Lewis, 2011; Westenholz, 1993). The idea behind dialectics is that they attempt to get rid of the tension that arises from competing demands. As a result, any alternative, therefore, will create new opposition. Dualities, on the other hand, are conceived as forces that need to be balanced and are characterized by contradictory yet complementary elements (Janssens & Steyaert, 1999). Moreover, dualities can consider two opposite elements simultaneously (Achtenhagen & Melin, 2003). That is to say, in dualities there exist internal boundaries that create a distinction and an external boundary that encourages synergies (Smith & Lewis, 2011). Similarly, a paradox emphasizes the simultaneous coexistence of contradictory elements (Janssens & Steyaert, 1999). Cameron and Quinn (1988) argued that choices are not called for to deal with paradoxes and paradoxical tensions, and their simultaneous coexistence is therefore logical and acceptable. Paradoxes, then, are contradictory yet interrelated elements that exist simultaneously and whose ensuing tension persists over time (Smith & Lewis, 2011).

Compared to the other conceptualizations of competing demands, the difference with paradoxes is that the resulting tension is sustained. There is no attempt to resolve or get rid of the tensions. Although the distinction is not sharp, paradoxes, unlike dualities, accentuate persisting tensions and engage competing demands in addition to contradiction, simultaneity, and interrelatedness. Because of its overarching nature, and its apposite depiction of the challenges of a contemporary organization, this paper focuses on paradoxes as defined by Smith and Lewis (2011) to represent competing demands.

The paradoxical tensions result from the perception of opposing, conflicting, and interrelated characteristics of paradoxes and are reflected, cognitively and emotionally when one attends to both demands simultaneously. For example, an architect deals with the paradoxical tension of form and function, while a product designer deals with the paradoxical tension of functional performance and emotional satisfaction. Similarly, an interior architect deals with the tension of playfulness versus the cost-efficiency of their design. In the case of interior architects, their work can be within a budget yet aesthetically pleasing without having to compromise on either demand. A social entrepreneur deals with the tension of commercial logic and social logic. So viewing competing demands as paradoxes calls for a creative alternative (Beech, Burns, Caestecker, MacIntosh, & MacLean, 2008), in which members of an organization find a way to engage both demands (Smith, 2014). It should however be noted that paradoxes are not a default representation of competing demands. Framing competing demands as paradoxes fits only when there is a constant pressure to engage both demands regardless of how competing they are.

## 2.2. Response to organizational tensions

Several authors have documented different ways of approaching competing demands and dealing with the resulting tensions. First, there is repression, including denial and blocking awareness (and pretending) that tension does not exist (Lewis, 2000), more like the ostrich effect. The second response is suppression, which involves a one-sided response to the tension in that one element is favored at the expense of the other (Jarzabkowski, Lê, & Van de Ven, 2013). Suppression also explains compromise and reconciliation, with which attending to one demand is done but only at the expense of the other. Suppression is a popular response involving reconciliation and striking a balance where organizations seek middle ground (Clegg et al., 2002). The theoretical stance, in this case, is a contingency approach, and it is based on choice (Clegg et al., 2002). Although this approach appears to manage the tension in competing demands, it oscillates between both demands, with the focus on one (e.g. exploration) putting pressure on attending to the other (e.g., exploitation).

The third response to organizational tensions includes separation or splitting and it takes two forms—that is, spatial separation and temporal separation (Poole & Van de Ven, 1989). Spatial separation, also called structural ambidexterity, occurs when organizations designate different units to deal with issues such as exploration and exploitation (Andriopoulos & Lewis, 2008; Raisch & Birkinshaw, 2008; O'Reilly & Tushman, 2008). Similarly, temporal separation, also called temporal ambidexterity, occurs when firms attend to one demand at a time, that is, they first focus on, for example, exploration then exploitation. In these cases, the tension is managed by changing focus, from one element of the tension to the other (Janssens & Steyaert, 1999).

In the responses discussed above, tension is repressed, suppressed or separated based on either–or thinking. Smith and Lewis (2011) claimed that such responses lead to a vicious cycle. Similarly Jarzabkowski et al. (2013) considered such responses as defensive where they only offer short-term relief. Accordingly, dealing with organizational tensions sustainably in the long-term requires responses that lead to virtuous cycles. One grand response is transcendence where a response involves rethinking the relationship between competing demands and exploits the complementarity and interdependence (Lewis, 2000; Poole & Van de Ven, 1989). One way of transcending the tension is synthesis. For the idea of synthesizing in this paper, the point of departure is Lewis's (2000) approach to the tension that transcends the contradiction and centers on the interrelatedness. In synthesis, there is a break from the first-order logic based on either–or thinking and a move towards both–and thinking. The move towards both–and thinking, according to Lewis (2000, p. 763), means to “recognize, become comfortable with, and even profit from tensions” that the paradoxes incite.

To support our argument, we draw on the pragmatic philosophy that centers on pluralism (instead of monism) to ground our proposed shift from either–or thinking towards both–and thinking. Thus synthesis recognizes the simultaneous coexistence of competing demands (Clegg et al., 2002; Poole & Van de Ven, 1989) by diluting the bipolarity in the either–or perspective (Janssens & Steyaert, 1999). Doing so involves framing, which involves taking on new ways of seeing and understanding things (Bartunek, 1988). In other words, it involves finding a new perspective that eliminates the disparity between the competing demands and goes beyond compromise and reconciliation (Clegg et al., 2002).

Building on these proposed responses and inspired by pragmatists' philosophy, our proposition of synthesis includes finding a way in which a fusion of competing forces might create a third option in a different layer of interpretation. Fig. 1 displays the different approaches to dealing with the competing demands of A

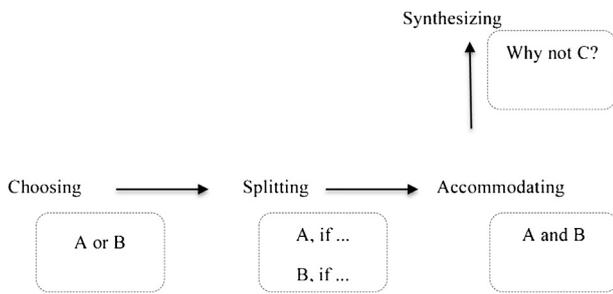


Fig. 1. General approaches of dealing with competing demands.

and B along with the central questions. Thus, in synthesis, not only do organizational members try to engage A and B, but they also opt for creating a third alternative that integrates the best of both.

The idea of synthesis as a creative alternative to paradoxical tensions can be exemplified using Red Hat and Bob Young's approach in the mid-1990s. In his attempt to grow Red Hat beyond its sales of just one million, Young faced the challenge of engaging competing demands. To achieve his goal, he had to integrate the profit-margin (or growth) objective and at the same time the knowledge-sharing objective in line with the open-source movement. The available options were to either adopt the classic proprietary software model, such as Microsoft and Oracle (thus satisfying only the demand for growth and increased profit margin), or use the free software model which only satisfies the knowledge-sharing objective. For Young, neither option was acceptable, as neither would engage both needs. The former, based on protecting information, was expensive and forced customers to buy regular updates.

Most of all, it did not go with the hacker philosophy of the open-source movement, which is based on shared knowledge and making human knowledge accessible. The other option meant assembling a new version of many free updates from independent developers, and the profit margin was meager compared to the proprietary model.

If the competing demands had been looked at as dilemmas, the typical response would have been a choice of one over the other. Similarly, had he looked at the problem as trade-offs, he would have opted for a compromise as a response to the tension. In both cases, the tension would have been suppressed. His approach, however, can be characterized as paradoxical because he upheld the opposing and seemingly irreconcilable models and their associated objectives, and synthesized the best of both. He considered the competing demands (of achieving a certain profit objective while sharing knowledge in line with the open-innovation movement) in the models to the growth path as paradoxical because the two models were contradictory, requiring different sets of resources, attention, and organizing. However, the models were also interrelated, in the sense that an element of the proprietary model could be used in the open-source model as well. This means that they were not mutually exclusive; using elements of one would not preclude using the other. Besides, the tension between keeping the new model profitable (like the proprietary model) and yet offering it at a lower cost (in tune with the philosophy of the open-source movement and knowledge-sharing) persisted over time.

Therefore, by synthesizing the best of both models, he helped companies to manage the upgrades and improvements through Linux's open-source platform. The originality of this "third" model happened when he made the software available as a free download on the Internet instead of choosing the cumbersome CD-ROM format. His perspective can be described as integrative, based on both-and, and best-of-both thinking. Moreover, Young did not see

the world "as it is" (i.e., he was not a victim of a false dichotomy, believing that the two options were all that existed) but rather "as it may become." Accordingly, he created a corporate market for Linux by synthesizing free software's low price and the knowledge-sharing objective within the proprietary models' profitability objective (Martin, 2007a,b).

With this illustration, we make the notion of asking the question "Why not C?" more concrete. Moreover, the illustration shows how the idea of conceiving competing demands as a paradox fuels synthesis as a response. In Young's case, when faced with competing paths to growth, his decision was not about choosing one over the other (such as in a dilemma) or choosing reconciliation and finding a middle ground (as in a trade-off). Rather, it was a synthesis of competing demands. Synthesis happened in this case when competing demands were examined as paradoxes. Conceptualizing these competing demands as paradox led him to a creative alternative that engaged the best of both demands. The whole idea with the Red Hat illustration is that looking at a problem of competing demands (in this case, models) as a paradox causes us to sustain the tension rather than seek a closure, by choosing one over the other or seeking the comforting, yet mediocre, middle ground. Besides, this is paradoxical, as the thinking in place was both-and. In cases of dilemma and trade-off the thinking in place is dominated by either-or. To break the straightjacket of the bipolarities in competing demands and to avoid choosing one demand over the other, based on monism, we will introduce the pragmatic philosophy that stresses pluralism and integration. In addition, we use pragmatic philosophy to ground our notion of design thinking and its components that enable synthesizing based on both-and, best-of-both, and neither-nor thinking (Stroh & Miller, 1994).

### 2.3. The pragmatic view

The pragmatism originated with Charles Sanders Peirce and was further developed with William James and John Dewey (Thayer, 1970). Where Peirce was a logician, James was an educator and a humanist who wished to force the general public to realize that certain problems addressed in philosophical debates have a real significance for mankind, because the beliefs that they promote lead to very different modes of conduct (Thayer, 1970, p. 28). For example, in relation to monism and pluralism, James (1907, in Thayer, 1970, p. 29) argued that monism demands a rationalistic temperament, leading to a fixed and dogmatic attitude. Pluralism, however, leaves room for contingency, liberty, and novelty, giving a freedom of action, which can be indefinitely extended. Pluralism accepts unity wherever it may be found, but does not attempt to force the vast diversity of events and things into a single rational mold. James (1907) claimed that if a man cherished novelty, risk, opportunity, and a variegated aesthetic reality, he would certainly reject any belief in monism (Thayer, 1970, p.29).

Pragmatic philosophy is metaphysically evolutionary and can be seen in Dewey's theory of inquiry. Dewey stressed the continuity and progression of what he called a warranted assertion and argued that conclusions of any inquiry are continuously renewed (Dewey, 1938a, 1938b, p. 21). Besides, he stated, "there is no such thing as a final settlement because every settlement introduces the conditions of some degree of a new unsettling" (Dewey, 1938a, 1938b, p. 63). Therefore, things – species and the environment at large – are evolving. Because there is no fixity or stasis, pragmatists consider change and process as fundamental. The metaphysical implication of pragmatism leads us to take the future into consideration. This in turn leads to the conception of a universe whose evolution is not finished, but is rather still, in James's terms, "in the making" or "in the process of becoming".

This is a universe that is, up to a certain point, plastic (Dewey, 1931, in Thayer, 1970, p. 33).

In organization theory, this notion gives rise to the idea that an organization is not set in stone. More specific to paradox theory, the argument would be that organizations could aim for C while engaging A and B. Aiming for C implies that organizations are not constrained by “what is” but rather that they should also take into account “what might be”. Similarly, knowledge, for Dewey, is gained as a result of an on-going and self-correcting process of inquiry. Consequently, the current explanation or solution to the problem is the one that makes the most sense or selects the best given the situation at hand. This is what Pierce referred to as “inference to the best explanation”. For this paper, this translates as the fact that the solution (as a creative alternative) to our problem (of paradoxical tensions) is temporary. The possibility of error, Pierce argued, provides us with reason to be “concrete fallibilists”, aware that any of our opinions may, for all we know, require revision in the future and that a theory cannot be stated as unconditionally true. This resonates with the notion that we should engage paradoxical tensions instead of trying to resolve them (Smith, 2014; Lewis & Smith, 2014). Similarly, engaging both demands prevents one demand from prevailing over the other. So such mentality keeps organizational members on their toes (Clegg et al., 2002) because the tension is sustained rather than resolved. In this line of argument, pragmatism and pragmatists such as Dewey rejected the sharp dichotomies such as thought and experience, mind and body (Putnam, 1994), tough-minded and tender-minded, and pragmatism is presented as a mediating philosophy that enables us to overcome the distinctions (James, 1907[1979]). The epistemology of pragmatic philosophy embraces fallibilism and values open-mindedness; the reason for this, as discussed above, is that the warranted assertion is fallible and variable. Accordingly, the focus of epistemological inquiry should not be on showing how we can possess absolute certainty; instead, we need to understand how we can possess methods of inquiry that contribute to our making of fallible progress (Thayer, 1970; Pappas, 2008).

The rejection of monism and adoption of pluralism support the integrative perspective, which is useful in dealing with the paradoxical tensions. Furthermore, the fallibilist epistemology is our foundation for the openness mindset that serves as a building block of design thinking. In an integrative perspective, there is an unexpected juxtaposition when dealing with tensions. Besides the mindset accents, the message is that there is always something undiscovered and that there is a creative alternative that, currently, does not exist. This fits with abduction which, according to Hansen (2008, p. 456), suggests, “something may be” instead of deductively proving “what must be” or inductively showing “what something actually is”. The latter two are considered as formal logic that dominated the scholarship and has been strong in “making an argument and proving a case” (Martin, 2009, p. 63). Hansen (2008, p. 456) saw the three logics as being rooted in different schools of thought, namely, pragmatism (i.e., abductive), Cartesian (i.e., deductive), and empiricism (i.e., inductive).

Accordingly, the ideas of pragmatic philosophy and the works of traditional pragmatists such as Pierce, James and Dewey can be used as inspiration to theoretically ground the building blocks of design thinking that we believe can facilitate the synthesis of the paradoxical tensions. Specifically, Pierce’s work on abduction and Dewey’s work on education (individual freedom vs. social control; playfulness vs. seriousness), aesthetics (consummatory experience), ethics (integrative balance), and theory of inquiry (logic as a progressive discipline) are central to our conceptualization of design thinking. In the next section, we will explain our version of design thinking, which is inspired by pragmatism.

#### 2.4. Design thinking: the design and management discourse

The term design thinking has been part of the collective consciousness of design research since Peter Rowe used it in the late 1980s (Dorst, 2011). Herbert Simon, however, laid the basis, in his book ‘The Sciences of the Artificial’ (1996[1969]). Simon (1996)[1969], p. 111 claimed that “everyone designs who devises courses of action aimed at changing existing situations into preferred ones.” Although design thinking is relatively new to fields outside of design, it has been slowly evolving and coalescing over the past decade in organization and management studies (Martin, 2009). It has been used to address open-ended challenges faced by today’s organizations (Dorst, 2011). For example, Martin (2009) propagated design thinking as a way of finding a creative alternative when organizations deal with competing demands. Similarly, Boland and Collopy (2004) argued in favor of “design attitude” claiming that the “decision attitude” that brought us to where we are cannot take us to where we want to be.

Similar to Simon, Neumeier (2009) claimed that anyone who tries to improve a situation is a designer. Consequently, design thinking can be understood as thinking as a designer would (Dunne & Martin, 2006; Martin, 2009). Similarly, Brown (2009, p. 86) defined design thinking as a “discipline that uses the designer’s sensibility and methods to match people’s needs with what is technologically feasible and what a viable business strategy can convert into customer value and market opportunity”. Meanwhile, Lookwood (2010, p. xi) referred to design thinking as “applying designer’s sensibility and methods to problem-solving, no matter what the problem is.” As highlighted in these quotations, the increased interest in design thinking outside of the range of design has led to different conceptions that have at times been vague and fuzzy (Hassi & Laakso, 2011). The fuzziness has resulted from the diverse background of key figures in the field, their epistemology, their audience, and their academic connections (Johansson-Sköldberg et al., 2013). Although practitioners advocate its relevance based on personal experience and anecdotal evidence, scholars have doubted its relevance and made critical remarks (Carlgren, 2013). To ease the elusiveness, Hassi and Laakso (2011) and Johansson-Sköldberg et al. (2013) viewed design thinking as two separate entities; that is, the design discourse and the management discourse.

The design discourse focuses on the cognitive aspect of designing, whereas the management discourse uses design thinking as a management approach. Johansson-Sköldberg et al. (2013) used “designerly thinking” to explain the design discourse which focuses on professionally educated designers, while they use “design thinking” to describe the emergent management concept focusing on multidisciplinary teams of professionals outside of the traditionally trained designers. Designerly thinking, therefore, focuses on the way designers think as they work, while design thinking is a management concept and a method that may facilitate innovation. Accordingly, Hassi and Laakso (2011, p. 6) recapitulated the common elements of design thinking in the management discourse as practices (human-centered approach, thinking by doing, visualizing, combination of divergent and convergent approaches, and collaborative work style), thinking styles (abductive reasoning, reflective reframing, holistic view, and integrative thinking), and mentality (experimental and explorative, ambiguity tolerant, optimistic, and future-oriented). More recently, Carlgren (2013, p. 65) described design thinking as “a set of five core principles (human-centeredness, diversity, problem-framing, experimentation, prototyping) that are enacted and embodied through a number of mindsets, practices, and techniques.” Based on such works and in relation to the challenge of engaging competing demands, design thinking is conceived as a management practice in which the interplay of perspective, process, structure, and mindset is used to help organizations deal

with paradoxical tensions. In this respect, [Dunne and Martin \(2006\)](#) felt that design thinking in practice could help managers cope with the classical challenges of dealing with competing demands, such as exploration and exploitation.

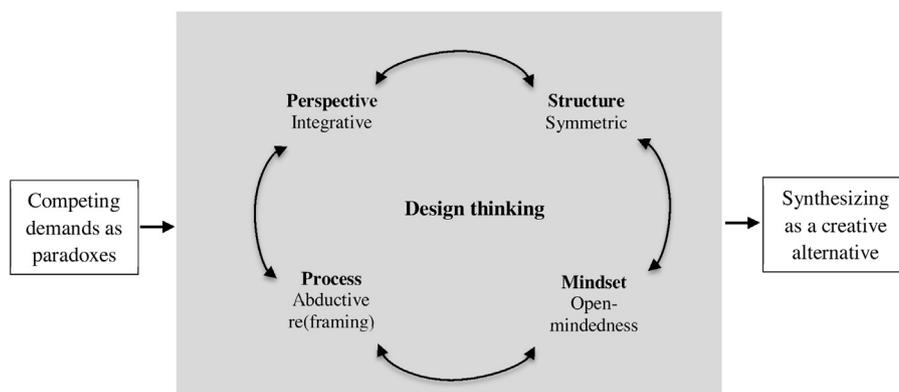
This paper therefore highlights the relevance of design thinking in organizations and organization studies. More specifically, design thinking, as conceptualized in this paper, helps organizations and organizational members deal with a time-tested and central challenge of engaging paradoxical tensions. Design thinking, as conceptualized in this paper, seeks a way to engage reliability and validity, art and science, intuition and analysis, and exploration and exploitation ([March, 1991](#); [Martin, 2009](#)), simultaneously. Similarly, one of the world leading design firms, IDEO, avows that design thinking provides an integrated third way (as denoted by C in [Fig. 1](#)). It should, however, be noted that the notion of design thinking is driven by practitioners and its conception is still new and not fully formed. Nevertheless, our argument is that organizational members can draw on and be informed by the approaches and the mindsets unique to design thinking when dealing with paradoxical tensions. Moreover, our interest in the concept of design thinking, which we stress is rooted in pragmatist philosophy, also illustrates how it promotes synthesizing in response to paradoxical tensions. [Fig. 2](#) and the subsequent discussion show how the components of design thinking engage competing demands (as a paradox) and how this interplay could lead to synthesizing.

### 2.5. Perspectives in organizations

Perspectives refer to organizational members' processing of information in a way that helps them identify and define problems to conceive solutions ([Westenholz, 1993](#)). Such perspectives are reflected in the structure (bureaucratic or agile) and process (linear or iterative) of an organization. In respect to managing tensions, this section illustrates the relationship between the organization's design and the associated perspectives behind the design. [Table 1](#) shows the alternative (mostly opposing notions as classical and contemporary) perspectives, and we show how neither of them is equipped to deal with competing demands and the resulting tensions.

[Schön \(1983\)](#) discussed the distinction between management science and the art of managing that influences professional practice. Management science is based on technical rationality and relies on an application of rigorous scientific theory and practice aimed to solve a problem. This perspective, however, has limitations, and he stated that it is incomplete as it fails to account for practical competence in divergent situations ([Schön, 1983, p. 49](#)). For that reason, he discussed a second perspective, namely, the art of managing, which is "implicit in artistic, intuitive processes which some practitioners do bring to situations of uncertainty, instability, and uniqueness" ([Schön, 1983, p. 49](#)). This cannot be reduced to explicit rules and theories. Similarly, [Dunbar and Starbuck \(2006\)](#) discussed a shift from a "focus on fit" to an "emerging fit" perspective in organizations. Accordingly, organizations that focus on fit emphasize alignment and congruence while organizations that concentrate on an emerging fit highlight iteration. With the emerging fit, managers believe that designing and taking action should be intertwined. In a similar fashion but focusing on the organizational design and its effect on innovation, [Dougherty \(2008\)](#) discussed social constraint and social action as perspectives from which to organize innovation, explaining that design based on social constraint emphasizes boundaries, authority, and reward mechanisms, whereas design based on social action emphasizes emergence, knowledgeable action and self-fulfillment ([Dougherty, 2008, p. 415](#)).

With a particular focus on competing demands and paradoxes, [Martin \(2009\)](#) discussed two dominant perspectives in contemporary organizations. The first is analytical, and its goal is mastery through rigorous and continuously repeated analytical processes ([Martin, 2009, p. 5](#)). The indicators of mastery, which include planning, focus, and repetition, require repeated experience in a particular domain ([Martin, 2009, p. 165](#)). The analytical perspective is based on the formal logic that relies on either-or thinking. Thus, it is unable to comprehend the complexities inherent in paradoxes ([Ford & Ford, 1994](#); [Lewis, 2000](#)). The other perspective is a reaction to the rise of analytical management and is centered on the dominance of creativity and innovation. At the heart of this school is intuition—"the art of knowing without reasoning" and it is regarded as "the world of originality and invention" ([Martin,](#)



**Fig. 2.** Building blocks of design thinking.

**Table 1**  
Classical and contemporary perspectives in organizations.

Classical perspective	Contemporary perspectives	Authors
Management science	Art of managing	<a href="#">Schön (1983)</a>
Focus on fit	Emerging fit	<a href="#">Dunbar and Starbuck (2006)</a>
Social constraint	Social action	<a href="#">Dougherty (2008)</a>
Analytical thinking	Intuitive thinking	<a href="#">Martin (2009)</a>
Decision attitude	Design attitude	<a href="#">Boland and Collopy (2004)</a>

2009, p. 6). Originality, in this case, demands a willingness to experiment, spontaneity as a response to novelty, flexibility in order to change direction in response to new information, and the ability to respond to opportunities as they present themselves, even if they are unexpected (Martin, 2009, p. 165). Following this line of argument and based on the work of the architect Frank Gehry, Boland and Collopy (2004) discussed two perspectives: namely decision attitude and design attitude. In their work, they suggested that present-day managers should change their perspective and embrace the design attitude instead of just being decision-makers. A decision attitude assumes that it is easy to come up with alternatives but difficult to choose, whereas a design attitude assumes that it is difficult to design a good alternative, but once you have developed a great one, the decision of which to select is trivial (Boland & Collopy, 2004, p. 4).

The above perspectives, classified as classical and contemporary, have polarized design elements in that focusing on just one perspective forces organizations to lean towards one extreme, for example, in their structure (mechanistic vs. organic). Our assertion is that the contrasting perspectives, and an organization design based on these perspectives, are not adequate to creatively engage competing demands. For example, Martin (2009) claimed that neither analysis nor intuition alone is enough. Furthermore, he argued that an aspect of both analytical and intuitive thinking is necessary but not sufficient. Consequently, engaging competing demands requires an integrative perspective that incorporates analytical mastery and intuitive originality (Martin, 2007a,b).

## 2.6. The structure

The perspective and its associated underlying assumptions that organizations embrace affect the way their structures and processes are designed (Galbraith, 1995; Martin, 2009; Tushman & O'Reilly, 1996). Besides, these perspectives and the resulting assumptions are also reflected in the organizational members' mindset. Fig. 2 shows the interdependence of the elements. For example, perspective affects the structure and vice versa. In this respect, under the classic machine model (Morgan, 1986) and following the challenges of the industrial age, organizations were designed to meet the demand of standardized products with the objective of stability and predictability (Weick, 2004). Organizations were therefore made up of layers of neatly separated compartments. Cunha and Rego (2010) argued that the work was broken down into minute detail with standardized rules and procedures. Miles, Miles, Snow, Blomqvist, and Rocha (2009) characterized this period as "the standardization era". Taylorism and military-like management governed this time, and organization members obediently followed rules and procedures. In other words, there was a tendency for businesses to be governed by instructions, with all decisions being issued by superiors and obedience to superiors required for membership (Burns & Stalker, 1961). This period, as previously discussed, was dominated by the classical perspective, which included analytical thinking (Martin, 2009) and focusing on fit (Dunbar & Starbuck, 2006) and was based on the social constraint to organizational design (Dougherty, 2008) and management science (Schön, 1983).

In contrast, Yoo, Boland, and Lyytinen (2006) argued that we are entering a knowledge-based economy in which organizations are facing high levels of dynamism. The coercive bureaucracy is therefore impractical in today's innovation-intensive organizations. The presence of a bureaucratic atmosphere in such organizations signals distrust and leads to myopic behavior (Dougherty, 2008, p. 417). With increased environmental dynamism and unique customer/business needs, such organizations are de-structuring and adopting almost too little structure (Davis, Eisenhardt, & Bingham, 2009). Cunha and Rego (2010) argued that

such organizations are coping with environmental dynamism by using flexible networks of highly autonomous individuals and teams, and by stimulating entrepreneurship. This can be described as an organic management system characterized by loose, fluid job descriptions, high levels of communication, and few rules (Burns & Stalker, 1961). Thus, such organizations, which are dominated by intuitive thinkers, aim for an emerging fit, taking the social-action perspective of organizational design (Dougherty, 2008; Dunbar & Starbuck, 2006; Martin, 2009; Schön, 1983).

The shift in an organization's design, from coercive bureaucracy to post-bureaucracy, mimics the changing perspectives and assumptions about the environment that, according to Weick (2004), can no longer be stable and predictable. Barry and Rerup (2006) also examined design change over time from a relatively centric stream that stressed enclosure and machine-like precision to an acentric stream that emphasizes open and dispersed composition. Though the shift is appropriate, excessive cultivation of the extreme position poses a problem even in an innovative organization. One case in point is Oticon's transformation in the early 1990s. Oticon is one of the leading hearing-aid manufacturers in Denmark. In organization studies literature, it is known for its spaghetti organization under the management of Lars Kolind (1988–1998) as CEO. In his quest to be innovative, fast and productive, in 1990 Lars Kolind abolished the company's formal structure to create what was called a chaos organization. The organization reflected the complex, informal, and almost anarchic organizing (Larsen, 2002) that is "emphatically non-hierarchical, chaotic, always changing and with no organizational diagram" (Gould Morgan, 1994). The business magazine *Fast Company*, in its 1996 issue, wrote, "It is hard to imagine a more disorganized organization than Oticon." The change in organizational design transformed Oticon and had quick and substantial performance effects (Foss, 2003), as they moved from the position of the follower to trendsetter. In addition, they were able to cut down their product development cycle and time to market by fifty percent. However, the success proved not sustainable, as Oticon became a victim of its structural ambiguity and suffered losses. Profitability seemed to be a problem. In response, they appointed Niels Jacobsen as executive vice president in 1992 to institute stability and to balance out the new creative yet overly flexible organizational design. The spaghetti organization was gradually abandoned starting in around 1996 in favor of a more traditional matrix organization (Foss, 2003, p. 335). Lars Kolind conceded that after having just loosened everything up, it was difficult to tighten things up again.

The Oticon case explains the precarious nature of extremes. Given the risk of one-sidedness, when an organization leans too much towards organic structures it leads to chaos and randomness (Clegg et al., 2002). Weick (1993) supported the argument that too much reliance on organic structure could result in confusion. Such organizations, according to Stacey (2011), lack internal complexity and have few internal connections. Consequently, in its extreme flexibility, the organic form cannot be a panacea despite its environmental dynamism. The organic form results in a focus on exploration at the cost of exploitation (March, 1991), on originality at the cost of mastery (Martin, 2009). This is because organizations are paradoxical and need an organizing form that engages both needs while dealing with the resulting tension. In this regard, Thietart and Forgues (1995) stated that some forces push an organization towards stability (e.g., planning, structuring, controlling), whereas others push it towards instability (innovation, initiative, and experimentation). Similarly, Stacey (2011, p. 285) considered organizations to be complex systems on the edge of chaos that simultaneously display the dynamics of order and disorder, stability and instability, regularity and irregularity. Accordingly, the design of innovating organizations based on only

one dimension is not only incomplete but also incorrect (Dougherty, 2008). Similarly, mastery without originality becomes mundane, like seeing the same thing the same way: it is a dead-end. Likewise, originality without mastery is flaky, if not entirely random. So, the power lies in the synthesis (Martin, 2009, p. 168).

As far as structure is concerned, without a paradoxical perspective, the design options will be fixated on the notion that increasing elements of one (i.e., the organic organizational form) will decrease the elements of the other (i.e., the mechanistic organizational form). In doing so, conceptualizing the problem of competing demands becomes a trade-off. For instance, Davis et al. (2009) agreed to Gilbert's (2005) notion that a decreasing structure resulting in a mechanistic organizational form increases the flexibility that results from an organic organizational form. In other words, the form that drives one interrupts the other (Austen, 2009). From a pragmatist perspective, Dewey called this undesirable state of either the excess or deficiency of one element (such as in his philosophy of education: playfulness and seriousness) an "unaesthetic vice".

"When there is excess or deficiency of either play or work, or an isolation of one from the other, the outcome is undesirable, that is, it is an unaesthetic vice. On the side of a play, the vice is 'fooling', namely, 'a series of disconnected temporary overflows of energy dependent upon whim and accident.' Excessive playfulness becomes the kind of indulgence that becomes an arbitrary and aimless fancy. The excessive flexibility and openness in play can lead to dissipation or disintegration. On the side of work, the vice is drudgery. When work becomes drudgery, activity that was 'directed by the accomplishment of a definite result' becomes activity undergone as mere means by which to secure a result. In drudgery, the agent is not emotionally or imaginatively involved in the present activity, and it becomes routine and mechanical. An exclusive interest in outcomes results in 'activities in which the interest in the outcome does not suffuse the process of getting the result.' In drudgery, the present activity is taken as if it were a necessary evil, when ends are external to the means, the process of doing losses all value for the doer." (Pappas, 2008, p. 178–179).

Gibson and Birkinshaw (2004) and Miron-Spektor et al. (2011) explained this unaesthetic vice as treating the relationship in competing demands as a trade-off while it could have been treated as a paradox to accentuate the reinforcing and interdependent nature of competing demands. The unaesthetic vice, that is, the risk of one-sidedness, as exemplified by Oticon, signals why paradoxes matter in designing organizations. However, framing paradoxical tensions requires a new language as the conventional language reaches its limits (Achtenhagen & Melin, 2003). As human beings, we need concepts and a grammar to articulate a complex reality (Bengtsson, Müllern, Söderholm, & Wählin, 2007). In that sense, Smith and Lewis (2011) argued that paradoxical tensions become more salient when organizational members articulate their content and explicitly frame their meaning as such. Unfortunately, the literature on competing demands and even paradox research still predominantly implies an either-or viewpoint when using a familiar language. From the organizing standpoint, this means using the available options, such as organic or mechanistic, centric or acentric, although these words fail to engage competing demands—especially paradoxes. Because of this, we conceptualize what we call a symmetric organizational form that follows an integrative perspective to enable the synthesizing of paradoxical tensions.

We use the concept of symmetry from a qualitative, interactive, and aesthetic angle rather than the normal quantitative and mathematical angle. The latter indicates a kind of equilibrium that requires an equal amount of A and B (Pappas, 2008). However, it

does not invite any interaction between A and B, nor does it require the elements to coexist. That is to say: emphasizing A at one time can be exchanged by reducing A at some other time. This explains what is called temporal separation, sequential ambidexterity, or structural ambidexterity (Van de Van & Poole, 1989; O'Reilly & Tushman, 2013) as a way of dealing with organizational tensions. In our case, symmetry, based on the conception of Dewey's integrative balance, signifies the harmony or the aesthetically pleasing incorporation of the competing demands A and B. Symmetry features a reinforcing relationship between forces in the tension (Pappas, 2008). What makes a symmetrical form different from the many forms of ambidexterity is that it is designed for paradox and with synthesizing in mind rather than separation (either temporal or spatial) to deal with the tension of engaging competing demands.

With the pragmatic turn and according to Dewey (1934), life overcomes and transforms factors of opposition to achieve higher significance. Achieving that higher significance avoids the extreme positions of excess or deficiency when dealing with tension (Pappas, 2008); in this case, the synthesis of competing demands. Such synthesis, according to Dewey, is not something that results from a mechanical process but is rather the result of alternating between needs. Consequently, when dealing with paradoxical tension, a rhythmic alternation between, e.g., disunity and unity exists. The rhythm, in that sense, implies a pattern of iterating between competing demands, such as mastery and originality, and results in a third element that integrates both, such as artistry (Austen, 2010). For Dewey, according to Pappas (2008, p. 175), "the question is how to live in a world where A and B are present and intermixed." Rhythm is then a matter of bringing about a complete and consummatory experience. Dewey (1934, p. 179) stated that symmetry is the equilibrium of counteracting energies and involves rhythm.

In our case, this symmetry shows the rhythmic interchange between mastery and originality in a different layer of interpretation that is translated into an organizational context. Structurally, we conceptualize symmetry as an imprecise sense of harmonious and aesthetically pleasing proportionality. It denotes Dewey's qualitative, interactive and processual integrative balance (Pappas, 2008, p. 172) and engages both stability and change. Consequently, we propose a symmetric organizational form as an alternative to the classic mechanistic or organic organizational forms (Burns & Stalker, 1961), or the centric or acentric organizational forms (Barry & Rerup, 2006) in order to deal with paradoxical tensions. Such a structural form facilitates reframing, in which organizational members assume simultaneous coexistence of conflicting and interrelated forces, and aims to create a third that integrates the best of both (Janssens & Steyaert, 1999). This structural feature of design thinking supports the integrative perspective. We believe that it urges organizational members to accept and embrace paradoxes, much as the mechanistic structure forces members to focus, maintain fit, and keep activities separated. When organizations and their members accept and embrace paradoxes, there will be less chance that the relationships between the competing demands will be asymmetrical and the organization schizophrenic (Clegg et al., 2002).

## 2.7. The process

In this section, we will discuss abduction and the reframing that constitutes the process aspect of dealing with paradoxical tensions. Abduction, introduced by Peirce (1839–1914), is considered to be the favored logic connected to Lewis's (2000) transcendence, and it helps us expand our strategies for dealing with paradoxical tensions. Abduction is "the process of forming an explanatory hypothesis and, compared to other forms of

inference, the only logical operation that introduces new ideas” (Peirce, cited in Hansen, 2008). Transcendence implies a critical examination of deep-rooted assumptions about tensions to construct a more accommodating perception of competing demands (Lewis, 2000). Therefore, approaching paradoxical situations requires a reasoning that views the situation in a wider perspective. This reframing is, therefore, based on the basic principles addressed in abductive reasoning. It can be explained as back-and-forth movements (iteration) in the value-creation process, as well as zooming in and out (contextualization) when looking at the problem at hand.

In addition to Hansen’s (2008) explanation of the three schools of thought and their associated logics (Pragmatism—abductive; Cartesian—deductive; and Empiricism—inductive), Martin (2009) also explained abductive reasoning in relation to deductive and inductive reasoning. Deductive logic – the logic of what must be – reasons from the general to specific. Inductive logic – the logic of what is operative – reasons from the specific to the general. Abductive logic – the logic of what might be – is a modal reasoning; its goal is to posit what could be true. Hanson (1959, cited in Hansen, 2008) explained abduction as the act of merely suggesting that something may be, whereas deduction proves that something must be, and induction shows that something actually is operative. Abduction, according to Kolko (2010), is an argument to the best explanation. It is the hypothesis that makes the most sense given the observed phenomenon (Kolko, 2010, p. 20). Accordingly, abduction is a logical way of considering inference or best guesses, and it allows for the creation of new knowledge and insight (Hansen, 2008; Kolko, 2010). Martin, Hansen and Kolko’s descriptions harmonize with the fundamental idea behind Peirce’s notion of abduction, which is a process that allows for the creation of new knowledge and insight. According to this paper, the use of abduction explains the unexpected juxtaposition and the novelty of a creative alternative when faced with paradoxical tensions (as exemplified by Red Hat).

In relation to dealing with paradoxical tensions, Dorst (2011, p. 527) stated that the process of dealing with such a problem requires a reframing of the situation. Reframing refers to the “imposition of a qualitatively new framework or template on some particular domain, a new lens for seeing and understanding it” (Bartunek, 1988, p. 137). For instance, reframing could shift our way of seeing competing demands from being a trade-off to a paradox, that is, to be aware of the contradictions and interrelatedness. Reframing through a paradoxical view means “remaining acutely aware of contradictions and anomalies and expanding our strategies” (Lewis, 2000, p. 771). In this light, viewing competing demands as paradoxes may offer challenging, even ground-breaking experiences, pushing us to question approaches that oversimplify and over-rationalize complex phenomena. In the case of Red Hat, without the use of reframing, Young could have been stuck with the available opposing options. By changing his frame of mind, (i.e., by reframing) he was able to see the simultaneity, interrelatedness and untapped potential in the juxtaposition of both models.

Our reframing argument also follows Lewis’s (2000) idea of expanding our strategies of dealing with paradoxical tensions that, as discussed above, requires alternating perspectives on different layers of interpretation. This is because using the first-order logic and rationality that aims for consistency and completeness – analytical thinking (Garud, Jain, & Tuertscher, 2008; Martin, 2009) – cannot (and will not) give us synthesis. This is also true for the logic based on originality that is intuitive thinking. These two concepts mainly deal with one side of a coin that is deemed as precarious extreme (Andriopoulos & Lewis, 2010). The integrative perspective then, together with reframing and abduction, re-examines fundamental assumptions regarding

the way organizational members conventionally deal with paradoxes and paradoxical tensions.

## 2.8. The mindset

In addition to changing perspective, engaging paradoxical tensions through reframing and abductive reasoning also calls for an apposite mindset. This mindset may be considered a habitual mental outlook that determines how one interprets and responds to situations and is separate from the cognitive competence and logic that are highlighted in the process aspects of design thinking. Dealing with paradoxical tensions can be considered ‘wicked’ in the sense that there are contradictory values and fundamental indeterminacy (Buchanan, 1992), which calls for openness. If we take the example of designers, an open mindset helps one to see things from multiple perspectives. Being open also means questioning the status quo: the old options are not good enough. Consequently, they strive to create the next great thing. The basis of open-mindedness as part of design thinking is, as we see it expressed in the fallibilist’s epistemology of pragmatism, that “what is” is not the only thing there is. We should strive for “what could be” rather than see the work “as it is”. From the Red Hat example, the two main options were not enough for Young. He looked for new options that intersected the two and was therefore in the mindset of “what could be” instead of “what is”. Alternatively, one should consider the particularities of each case rather than only one’s earlier experiences of “what was” and “what is”, meaning that each new paradoxical situation requires a stance that is open to the unique elements of the present situation, i.e., open-mindedness.

This open-mindedness realizes that there is always something “undiscovered” within tensions. By developing such a mindset, an organization and its members can develop a more extensive repertoire of responses while engaging competing needs. From an organizing perspective, such a mindset indicates that the organization and its design are not set in stone but are rather an emerging entity that is temporarily designed to stimulate action and interaction. Accordingly, the notion of design thinking can be considered as tentative and ever changing. The organizing effort enriched by design thinking is thus an unfinished business, which is necessary because it is based on the continuous search for new creative alternatives. The mindset that realizes that there is a creative alternative that does not exist now corresponds to the fallibilist pragmatic epistemology by which individuals should remain open-minded. In Peirce’s conception, such a mindset has to do with the belief of individuals, and it is what guides their desire and actions (Thayer, 1970). Besides, “what-is” is fundamentally tentative, and it is subject to change. This is related to the suggested process component of design thinking (i.e., the abductive reasoning) that accents the temporal and provisional nature of “what could be” and thereby is more modest in its composition.

## 3. Discussion

In this paper, we began with the aim of achieving an increased understanding of competing demands, specifically of paradoxes, and of how organizations and their members can approach and deal with the resulting tensions. We specifically situated design thinking in organization studies and used it as a conceptual bridge to show how we can use it to deal with paradoxes and paradoxical tensions. To do that, we illustrated the building blocks of design thinking, namely, an integrative perspective, a symmetric organizational form, a process characterized by abduction and reframing, and an open-minded mindset. When framed in that way, design thinking could illuminate a context that enables organizational

members to synthesize paradoxical tensions. It also focuses our attention towards an integrative perspective that engages the broad both–and views (Sanchez-Runde & Pettigrew, 2003; p. 245; Stroh & Miller, 1994). Fig. 2 shows how our conceptual framework of design thinking is assembled when aiming for synthesizing as a creative alternative.

### 3.1. Putting it together

Considering again our focus on organizations and how they deal with paradoxical tensions, we have indicated how dealing with paradoxical tensions is crucial to innovation (Andriopoulos & Lewis, 2009; Norman et al., 2004; Tse, 2013; Garud et al., 2011). Inspired by pragmatic philosophy, we argue that design thinking can facilitate a virtuous response when organizations and their members are confronted with the paradoxical tensions. The integrative perspective in design thinking – based on both–and, best-of-both, and neither–nor logic (Stroh & Miller, 1994) – supports the pragmatist notion that the available options are not adequate and that there are new possibilities. The open-minded mindset supports the integrative perspective, and the process of abduction, which is based on “what could be” rather than based on “what is”. Consequently, the strategy of “creating” something new rather than “choosing” from the available options (Boland & Collopy, 2004) evolves from the addressed open-minded mindset.

With open-mindedness, organizational members accept that the tension that results from competing demands will never be completely solved. In fact, when viewing competing demands as paradoxes, organizational members do not seek to resolve the tension irreversibly (Cameron & Quinn, 1988). On the contrary, paradoxical tension is ongoing, which is why organizations are always developing ways to recognize this tension and manage it. The solution is always temporary and provisional. As described using abductive logic, the solution is time-limited. The evolutionary pragmatist viewpoint stresses that things (e.g., customers, technology) will change in the future; even the environment is going to change. According to Dewey the balance in the synthesis can be understood as “not as a state of rest, but a matter of correcting tendencies that push us in different directions and the risk of falling into imbalance is constant.” (Pappas, 2008, p. 183). In the same way, Austen (2010) stressed that tensions are not solved permanently. Tensions are ongoing which implies that organizations need to recognize and manage them through provisional creative alternatives. Consequently, our argument for synthesis stresses both cohesion and a sense of continuity (Kolko, 2010), and it prevents stagnation or chaos whenever either one of these demands is given primacy.

As is conceptualized in this paper, design thinking, therefore, can be used as an organizational resource (Kimbell, 2011) to facilitate the metaskill of being able to face competing models (Brown, 2009). The main feature of this metaskill is that instead of choosing one model over the other, it aims for a third solution. This was exemplified by the creative alternative in the illustration of Red Hat. That synthesized model encompassed not only elements from both opposing, yet interrelated models, but also framed the problem differently and created a third model. This “third” model is where the transcendence – as explained by Lewis (2000) – to approaching paradoxes lies. When we simultaneously engage competing demands, the synthesis will not simply be the imposition of one position or compromise between different positions. Rather, the synthesis implies a creative and different understanding that is both novel and appropriate for the organization in its situated context (Bartunek, 1988, p. 153). This, however, occurs when the problem of competing demands is framed from a paradoxical angle. Furthermore, adopting design

thinking, as operationalized in the paper, facilitates a potential for a creative redefinition of the problem that leads to a creative alternative. More specifically it provides space for organizational members to transcend the tension. Such effort is instrumental in positioning paradox as a metatheoretical perspective (Lewis & Smith, 2014) and goes beyond the traditional perspective of “one best way of doing things” and the contingency perspective based on “if–then” insights (Smith & Lewis, 2011; Lewis & Smith, 2014). Our contextualization of the paradox literature in pragmatic philosophy helps us delineate and expand the core elements and the underlying assumptions of paradox as a metatheory. Using the classical pragmatists’ view we have highlighted the approach to tensions, core premises, mindset, and the overarching question raised in paradox theory.

## 4. Conclusion

In this paper, we argued for the “power of ands” – how thinking in two’s could facilitate the simultaneous coexistence of competing demands. Given the increased pressure to engage both, we focused particularly on the approach of seeing competing demands as paradoxes. This approach emphasizes not only the contradictions but also the interrelatedness, the reinforcing relationship and the sustained tension of engaging competing demands. Given the dominant either–or outlook in competing demands and without a clear description of the resulting tension, we argue that there will be a tendency to suppress one need that, in turn, intensifies the pressure from the other. Therefore, we propose design thinking as a platform that encourages focusing on both sides. Apart from choosing one over the other (i.e., either A or B) or oscillating between two opposites in a single continuum (When A, or when B?), we welcome the notion of engaging A and B and even extending the inquiry by asking “why not C?” C represents a creative alternative or synthesis of paradoxical tensions that incorporates the best of both worlds.

Design thinking is presented as an umbrella description of the interplay between perspective, structure, process, and mindset that enables the synthesis of paradoxical tensions. The key point here is that a synthesis is based on “creating” rather than “choosing”, which supports the pragmatist notion that there is always something undiscovered. The same is true with the process aspects of abduction and reframing. Through using synthesis as a way of dealing with tension from competing demands, organizational members look at the resulting tension from a paradoxical angle to develop a creative alternative based on the integrative perspective. In addition, we believe, at least conceptually, that the symmetrical organizational form precipitates a movement away from the contingency approach (when A, or when B?) that is currently dominant in theory and practice, and towards a more integrative and paradoxical approach.

### 4.1. Theoretical and practical implications

It is necessary to stress that synthesis should not be seen as the default response to all tensions emanating from competing demands. For example, it might not be suitable if one’s conceptualization of competing demands is a dilemma, in which case the response would be to choose one over the other. Similarly, for practical reasons, when competing demands are understood as trade-offs, one might aim to compromise and find a middle ground.

In our view, synthesis works when the goal of an organization is peak performance in the short term while reinforcing long-term success (Smith & Lewis, 2011). In this case, competing demands are perceived as paradoxes and approached by management with “both–and” thinking. In this paper, synthesis, although essentially challenging, is proposed as a way of operationalizing the both–and

thinking that organizations strive to achieve (Jules & Good, 2014). Theoretically, this also marks a shift from a contingency approach towards paradox as a metatheoretical perspective (Lewis & Smith, 2014). We argue that a contingency approach (“When A, or when B?”) is not adequate to deal with paradoxes and paradoxical tensions. We argue for a metatheoretical shift towards a paradoxical approach that engages A and B. This highlights the argument that our response could be based on “creating” rather than “choosing”. Our proposed conceptual framework to help achieve synthesis aims for just that. To support our view of paradox as a metatheoretical perspective, we propose assembling an integrative perspective, open-mindedness, abduction and reframing as a process and the symmetrical organizational form as a structure to achieve synthesis. This, however, calls for empirical research, such as discovering how symmetrical organizational forms fit in the context of various organizations, and what it means to adopt symmetrical organizational forms. Besides, theorizing design thinking as a platform calls for empirical investigation of antecedents, micro-foundations, micro-practices and the specific capabilities required for developing and implementing such platforms.

In summary, we have explained the conceptual framework that makes a synthesis of paradoxical tensions possible. Inspired by pragmatic philosophy, we have developed our version of design thinking as it exists through the interplay of structure, process, perspective, and mindset. The conceptual framework, we believe, has practical implications in pointing out features that managers can influence when adopting a view informed by design thinking. For the manager, our version of design thinking is similar to the way in which an artist uses his or her palette. In this sense, the manager arranges and mixes the appropriate “colors” and translates them into “artistic expressions” to make the design of an organization work. More specifically, design thinking, as conceptualized in this paper, shows how managers can creatively deal with paradoxical tensions by indicating the apposite structural form, mindset, perspective, and processes. From the existing repertoire of responses, we tried to highlight how focusing on synthesis could enrich managers’ attempts to transcend the opposition in paradoxes and how they also can benefit by focusing on the interdependence of competing demands.

## Acknowledgments

We wish to thank the Associate Editor, Associate Professor Martin Fougère, and the anonymous reviewers for their challenging but also very constructive and helpful comments. We also want to thank the Bank of Sweden’s Tercentenary Foundation (Riksbankens Jubileumsfond) for their financial support.

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