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DOI

[10.1177/00081256231169070](https://doi.org/10.1177/00081256231169070)

Publication date

2023

Document Version

Final published version

Published in

California Management Review

Citation (APA)

Gemser, G., Calabretta, G., & Quint, E. (2023). Leadership to Elevate Design at Scale: balancing conflicting imperatives. *California Management Review*, 65(3), 48-72. <https://doi.org/10.1177/00081256231169070>

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Leadership to Elevate Design at Scale: BALANCING CONFLICTING IMPERATIVES

California Management Review
2023, Vol. 65(3) 48–72
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DOI: 10.1177/00081256231169070
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SUMMARY

Little is known about how design leaders foster design excellence “at scale” within large organizations. To bridge this gap, this article reports on interviews with 59 senior design leaders. Using a paradox perspective to frame the findings uncovers major challenges when leading design teams inside large organizations. It also identifies five pairs of opposing leadership behaviors that address these tensions and balance the overarching paradox of integrating design into the fabric of an organization while maintaining its distinctive character: being transformative yet affirmative; being directive yet accommodating; being proactive yet responsive; being intuitive yet systematic; and being holistic yet specific.

KEYWORDS: leadership, design, innovation, differentiation, integration, scaling

An increasing number of companies are investing in in-house design teams and extending the influence of design to the executive level to stimulate creativity and innovation.¹ Examples of well-known companies that have built substantive in-house design teams include Philips, PepsiCo, 3M Company, Johnson & Johnson, and Apple.

For these in-house design teams to thrive, effective design leadership is essential.² Design leadership is operationalized here as the activities and behaviors of those leading in-house design teams to induce stakeholders to take action and create and maintain design excellence.³ Those leading in-house design teams—that is, design leaders—must seek excellence in craft while optimizing business outcomes.⁴

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What falls within the remit of in-house design teams, although somewhat context-dependent, generally relates to creativity, user and brand experience, and innovation-related activities. Design generates value differently than R&D or marketing—for example, by fulfilling unmet customer and user needs from an experiential, sociocultural point of view, rather than from a (uniquely) technological or commercial perspective.⁵ Furthermore, designers tend to work in an intuitive, iterative, and experimental manner.⁶

Prior research has focused on how to integrate design within an organization.⁷ While integrating design is an essential part of fortifying and scaling organizational capacity to innovate, effectively leading in-house design teams takes more than convincing others of its utility and stewarding its presence across the organizational grid. It also requires carefully curating design's "differentness" compared with other disciplines or knowledge areas, as this is what adds value in the first place. A key challenge for design leaders is, for example, to build bridges between the design team and the rest of the organization by adopting established practices, while at the same time providing the design team the opportunity to adapt those practices to optimize creative outcomes.

Hence, in this article we use qualitative research to explore how design leaders can navigate the paradox of integrating, and yet differentiating, design. While the paradox of feeling "similar to" yet "distinct from" others in terms of identity has been identified in prior literature,⁸ that experience has yet to be studied from the perspective of design leaders. We undertake that task here, using paradox theory as our analytic lens. We focus on senior leaders responsible for design teams in large, established organizations. Navigating the paradox of integrating yet differentiating design seems particularly challenging in these types of organizations considering their complexity and tendency to prioritize efficiency and short-term business results.

Design as a Strategic Asset

A greater appreciation of design as a strategic asset to enhance business outcomes and provide competitive advantage has resulted in an increase in the number of companies introducing in-house design professionals.⁹ Compared with subcontractors, in-house design teams facilitate value capture by preventing knowledge spillover and increasing efficiency given their easy access and potentially lower design resource outlays. In addition, having an in-house design team facilitates overarching organizational integration, since internal designers gain an in-depth understanding of the organizational context in which they operate.¹⁰ However, for organizations to truly benefit from creating and growing in-house design teams, effective leadership, design-wise, is essential.¹¹

Although design leaders need skills similar to those who are employed in other business and functional leadership roles, leading any team of design professionals generally comes with its own set of characteristics and challenges. Designers

tend to be quite comfortable with the unknown, for example. They have a passion for exploring “what could be,” are open toward intuitive decision making, and tend to prioritize customers’ and users’ needs. By contrast, the people working in other disciplines (such as marketing, engineering, or project management) tend to be less open to ambiguity, prefer to exploit “what is,” prefer to make analytical decisions based on facts and figures, and/or tend to be technology or business driven.¹² Leading a design team thus requires a unique approach, when compared with leading those from other disciplines, like engineering or marketing. Prior research has identified a range of tactics that might serve design leaders in this capacity, including ways to provide feedback on creative work¹³ and ways to cultivate a workable meta-identity for creatives who operate in commercial contexts (as “practical artists,” for example).¹⁴ Other literature points to practices that help integrate intuitive decision making with rational approaches.¹⁵ There is literature identifying practices or activities to integrate design within the organization, including persuading top and middle management to act as ambassadors for design,¹⁶ showcasing successful small-scale design projects,¹⁷ and appointing an executive design leader (e.g., a chief design officer) who has sufficient clout to influence strategic decision making.¹⁸

A Paradox Perspective

In this study, we adopt paradox theory to examine how design leaders guide their in-house teams while operating in a commercial context.¹⁹ Central to the paradox perspective is the notion of tensions arising from the presence of contradictory, yet interrelated, sets of goals and activities.²⁰ For example, organizations must explore new knowledge to ensure long-term growth, but they also must exploit existing knowledge to ensure short-term profitability.²¹ Other examples of paradoxes include (groups of) individuals experiencing feelings of *similarity with* versus *difference from* others,²² or striving for commercial versus artistic merit.²³

Following the tenets of paradox theory, effectively managing a paradox (e.g., exploring versus exploiting) does not imply either/or choices, with one option preferable to another. Instead, the idea is to leverage the paradox in a “both/and” manner, navigating between opposing options, and hence more effectively leveraging the outcome of both.²⁴ To manage paradoxes, prior research has proposed different paradox resolution strategies.²⁵ Some of the most prominent are strategies that involve actively balancing the needs of each pole of the paradox over time in a dynamic fashion.²⁶

Paradox scholars have highlighted the importance that leadership plays in managing paradoxes and implementing paradox resolution strategies.²⁷ However, paradox studies at the individual level, and particularly at the level of decision makers, remain sparse, with those available not focused on paradox-savvy leadership for design and innovation.²⁸ Our research is focused on behaviors displayed by design leaders when managing this integrating versus differentiating paradox: how design leaders gain acceptance of design’s “differentness,” while also effectively integrating design across the organization and managing the tensions arising from

the paradox made manifest in their daily activities. Effectively managing this paradox is key to obtaining design excellence “at scale” and optimizing value today and in the future.

Research Base

In this study, an exploratory, qualitative method was adopted, interviewing senior design leaders. The leaders were not selected randomly to participate in this research. We based their selection on theoretical relevance. To this end, we interviewed senior leaders managing in-house design teams and working in relatively large, complex organizations with different business units and/or functions, both across geographies and across multiple existing processes, policies, and strategies.

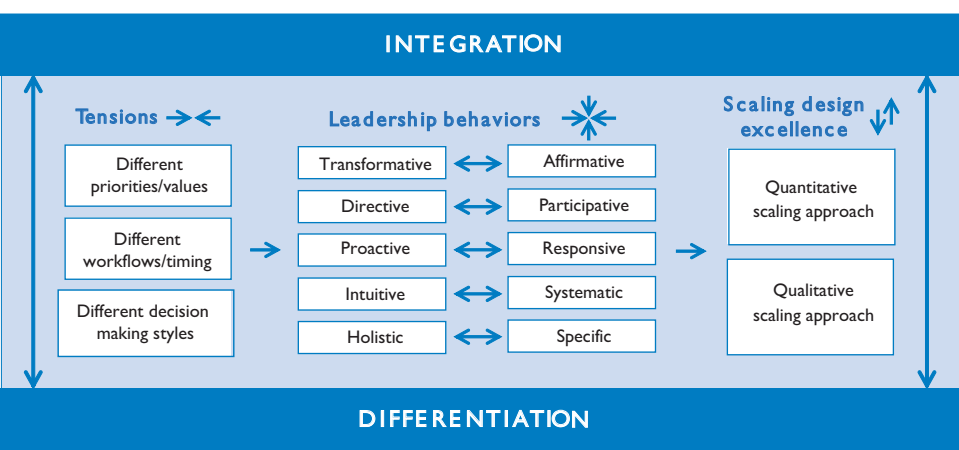
We began by interviewing executive design leaders having the title of Chief Design Officer (CDO) who are also recognized thought leaders, and regularly referred to in the media. We asked them to suggest names of peers they respected, which resulted in a snowball selection approach.²⁹

In total, 59 senior design leaders from 50 organizations across three regions were interviewed. Of these, 54% were acting at the executive level (having the title of CDO, Head of Design, (S)VP of Design, or similar). Each occupied the most senior role within their organization’s hierarchy in terms of design. The remaining 46% were also working at a senior design leadership level (having the title of Design Director or similar) but were leading design efforts for a particular design competence area, business unit, or region of their organization. Whenever possible or deemed relevant, multiple senior design leaders from the same organization were interviewed. All the design leaders we interviewed worked within a design leadership role at the sampled company for at least one year. Many of the design leaders sampled (i.e., 76%) had a bachelor’s and/or master’s degree in design.³⁰ Of the senior design leaders sampled, 17% were female. The interviews were performed in the period between early 2018 and mid-2020.

The leaders’ employer organizations were predominantly for-profit, representing a broad range of industries. Each was large (a thousand employees or more), operating on a global scale in B2B and/or B2C markets, and had headquarters in Europe (34%), the United States (50%), and the Asia Pacific region (16%). Of the companies sampled, 88% were publicly traded.

The interviews were retrospective, semi-structured, and focused on three main topics: the leaders’ backgrounds and prior and current roles; their activities and behavior that sought to provide structure and direction to the design team and the organization at large; and the activities and behavior that enabled them to successfully foster and scale design excellence within the organization.³¹ To enhance information sharing, we assured leaders up front that the conversations would be kept confidential and that results would be shared in an anonymized fashion. Each interview was audio recorded (with consent), transcribed, and sent back to the design leaders for fact-checking and reviewing.³²

FIGURE 1. Framework for leadership behavior to obtain design integration and differentiation.



Our data analysis followed a qualitative content analysis approach.³³ Two of the three co-authors read the transcriptions thoroughly to immerse themselves in the research context, identify relevant statements, and develop codes directly representing the language used by the informants. In subsequent rounds of coding, the codes were clustered into more abstract concepts (e.g., “tensions due to different priorities/values”; “qualitative scaling approach”), “lifting” the codes to a more conceptual level to describe and explain the phenomena we were observing. We used an iterative approach, having multiple discussions among ourselves to reconcile diverging interpretations and going back and forth between the data, emerging concepts, and relevant literature. The iterative approach helped us not only to identify more abstract concepts but also dynamic relationships between these concepts.³⁴ Our resulting framework, grounded in the data, is visualized in Figure 1. This figure can be summarized as follows: designers have a uniqueness in practice and craft that may contribute to tensions with other organizational actors. These differences can be clustered into three distinct categories: related to priorities/values, related to workflow/timing, and related to decision-making styles. We have distilled paradoxical leadership behaviors to address these tensions. The leadership behaviors do not solve the tensions but address them in such a way that design becomes integrated within an organization’s fabric yet remains differentiated enough to provide unique value. Doing so results in design excellence, with the design team operating “at scale” both from a quantitative and a qualitative perspective.

Tensions Associated with Scaling Design

There was agreement among the design leaders that creating design excellence at scale in their respective organizations required effective management of major areas of tension and various challenges. We classified these tensions and

TABLE I. Overview of Tensions between Designers and Other Organizational Stakeholders.

Tensions in Large-Sized Organizations Arising from Differences in:		Illustrative Quotes
Priorities/values	Design tends to prioritize desirability for customers and users above technical feasibility and business viability.	“The designer is always going to want to make something more desirable, if you will, whatever word you put on it. The product manager is always going to want to insert as many features that have been requested as possible. And the engineer is always going to want to optimize what we call the technical foundation, as much as possible.” (VP Design, information technology, Fortune 500)
Workflow/ timing	Designers tend to prioritize high-quality outcomes above being on time and on budget.	“My designers want to be proud of the answer. Many designers see the work, in some ways, as a reflection of themselves. And I think that that’s really different from what I see with, for example, project managers who really want to deliver on time and on budget, but who don’t necessarily care what the answer is. That can be demotivating.” (Head of Design, financial services, Asia pacific stock market)
	Designers prefer to explore new knowledge and anticipate developments rather than exploiting existing knowledge and reacting to developments.	“I have the vision that the strategic role for design would not only be responding to what our clients are asking for, but that it’s providing answers to questions that they cannot even imagine yet. (..) But with every disruptive idea, we are so often discouraged to pursue it.” (VP Design, Automotive, European stock market)
	Designers emphasize the front end, the problem-defining phase, rather than jumping right to the back end, the problem-solving phase.	“My first question [to business managers] would be: Are you very clear on the problem that you’re trying to solve? Prove to me that you’ve done your homework to validate that it’s a problem that the customer actually has.” Before you show me your execution [via a business requirement document], what evidence do you have that customers actually have this problem in the first place?” (Head of design, financial services, Asia pacific stock market)
	Designers first engage in in-depth user research; then supplement with generic market/trend research.	“If we prove, by means of user research, that this is important for people, that we have researched people, there is the need, and this is what people think about that. I think that’s a good starting point. Then you support it with trends as well, meaning that you identify patterns that the world is moving toward that direction and so forth, I think that provides a good foundation [to determine a direction].” (VP Design, professional services)

(continued)

TABLE I. (continued)

Tensions in Large-Sized Organizations Arising from Differences in:		Illustrative Quotes
Workflow/ timing	Designers follow a process that is less explicit (a black box) than other organizational processes and sometimes adjusted according to present or arising circumstances.	"This is always the battle that you have with certain people. Because they've seen the finished result, it's so easy to say "I'll have that please. Can I have it in a week? No, you can't have it in a week, this thing took about three months to create. It may look like we've only just made it, but it's a process. There's a process to get here." (Design Director, athletic apparel, Fortune 500)
	Designers prefer to use qualitative rather than (solely) quantitative data.	"One of the problems with designers, and the credibility gap that they have, is that they only bring in qualitative data, even when there's quantitative data to use. What's critical is to be quantitative everywhere you can. Qualitative data basically asks your very rational business leaders to take a leap of faith. (. . .) What can sometimes discredit design research is that it all feels more like inductive reasoning. It doesn't necessarily translate to the business. They can be absolutely extraordinary insights, but they get lost in how the data are presented." (VP Design, information technology, Fortune 500)
Decision making	Designers are comfortable relying on expert intuition and insights, beyond logic/rationality.	"I think if you're trying to do really great design and really great innovation, sometimes you need some belief before the proof is there and some of that comes from your gut. But [the finance industry] is not an industry that is comfortable with that yet (. . .) I don't think we have anyone at the top level who can look at things and sort of be like, 'Oh, that feels right.' It is still an industry where there's an obsession with proof." (Head of Design, financial services, Asia pacific stock market)
	Designers accept ambiguity and long-term potential, rather than seeking certainty and short-term gains.	"Our designers are much more comfortable with what we call failure, because to us, it's just iteration. I think in an organization that's so focused on being right all the time and needing to be right all the time, there isn't the same feeling." (Design Director, consumer packaged goods, Fortune 500)

challenges into three categories, as discussed below. Table 1 provides an overview of such tensions, including quotations from our data set to illustrate each one.

Tensions Due to Differences in Priorities/Values

Some of the tensions or challenges the design leaders faced had to do with their design team having different priorities, values, or passions to other disciplines or knowledge domains within the organization. Each domain tends to foreground its own priorities and standards of excellence. Interviewed design leaders highlighted, for example, that designers tended to focus on desirability, wanting to fulfill (latent) customers' needs and wishes, engineers foregrounded technological feasibility, and project management prioritized business viability. Due to resources generally being in limited supply, these diverging priorities or standards of excellence are not so easily combined without one or more of them being watered down.

Tensions Due to Differences in Workflow/Timing

According to our informants, their design teams tend to have different workflows and timing compared with people working in other disciplines or knowledge domains, which can result in tensions and challenges when scaling design within an organization. Designers prefer to invest a significant amount of time upfront in defining the "right" problem—for example, through in-depth customer interviews, ethnographic studies, and co-creation with users. Some degree of understanding may thus be required from those operating further down the track, but this is not always present. Sometimes, there may be unrealistic expectations on the part of other disciplines or departments about how long it takes to obtain specific outcomes: because the design process might not be transparent and well-integrated inside the organization, it may seem, when examining the design outcome, as if it was relatively easy to create that outcome. But, in general, making things seem easy, and look easy, requires a lot of effort and practice.

Tensions Due to Differences in Decision-Making Styles

The design leaders in our sample report that, to assess the soundness of a specific solution or opportunity, their designers tend to be guided more by qualitative insights than quantitative ones. However, for disciplines or knowledge domains used to working with large(r) data sets, such as R&D and marketing, results based on "a sample of only 20 people statistically means nothing" (Design Director, Healthcare, Fortune 500). In other words, those accustomed to using larger sets of data to support their activities, such as scientists and marketing experts, might not take the qualitative data obtained by designers all that seriously, or not seriously enough. A similar tension often emerged at business meetings attended by design leaders with their senior management and C-Suite colleagues: decision making is predominantly based on "running the numbers." Business leaders prefer to make or justify decisions based on logic and analysis, and they often focus on short-term results rather than long-term, uncertain outcomes. Design leaders, on the other hand, are more open to relying on their

expert intuition and creative sensibilities, also because it is sometimes difficult to find hard evidence for future-related customer behavior.

The Design Leader's Challenge: Integrating versus Differentiating

The tensions listed in the prior section suggest that effective design leadership is challenging and must be adaptable, particularly in large, complex organizations. In most organizations, design is a relatively new business discipline and so is still seeking legitimacy, even if its leader has obtained a seat at the C-suite table. To cite the Head of Design of a global software company reflecting on the challenges of design leaders:

Just talking to other design leaders, everybody's struggling with the same thing, pretty much: how do you integrate design into large organizations? . . . Chief Design Officer is the new title, but that doesn't mean design is well respected or sufficiently trusted within an organization.

Overarchingly, we found that design leaders, on one hand, focus on integrating the design team into the fabric of the organization. Integration is required for design to effectively collaborate with other disciplines and knowledge areas and realize the value it can bring (in terms of design processes and outcomes). Because each discipline or area tends to have its own focus and priorities, design leaders need to find common ground and "build bridges." Indeed, to effectively operate in a large, global organization, executive design leaders must, first and foremost, take responsibility for the business component of their work—if only to guarantee the longevity of the design team and not "trying to push design for the sake of design" (Design Director, Healthcare, Fortune 500). To quote the Head of Design from an automotive company (listed on the European stock market), "We can make beautiful cars—but if they don't sell, then investment in design will dry up soon." The design team operates in a broader organizational context. In it, resources are never unlimited; revenues and profits must be made to be sustainable. It is thus important for a design leader to empathize with the broader business context. "If we're not enabling the company to make money, there is really no point having the design function, and that's sort of my pragmatic approach to our design" (VP Design, automotive). This also implies that many of the design leaders we interviewed had "a very good understanding of how business operates" so they could create "that balance between satisfying shareholders and satisfying users" (Chief Design Officer, consumer electronics).

On the other hand, design leaders aim at *differentiating* the design team, and protecting its uniqueness, so that what design brings to the table is valued and incorporated. Ultimately, design needs to provide its unique perspective compared with engineering, marketing, or any other discipline or knowledge area in the organization if it is going to be of added value. What design brings, if anything, is "diversity of thought." Design leaders preserve this diversity of thought and bring it to the fore. The head of design at a professional services company, for example,

described the role of design leaders as providing “oxygen” for the design team, whose creativity might get smothered by large companies’ focus on efficiency:

Chief design officers . . . spend much of their time creating breathing space for designers to thrive. Because organizations are often focused on optimization, efficiency, replicability, and consistency—and also on lowering costs and avoiding risk—it is challenging for design to survive. It’s almost like you’re smothered by a blanket and you’re constantly trying to push it off by showing proof and results, bringing people along, communicating, showing commitment . . . getting things out of the way for your design team to actually empower them to deliver great results.

Similarly, a senior VP of design at a process transformation company, reflecting on his main tasks, emphasized the importance of creating a “creative bubble” for the design team—an environment in which the designers’ needs are met, and they can focus on their creativity. This was not experienced as an easy task, but certainly recognized as essential:

What is really important is to shield my designers from the corporate machine. This is crucial for their happiness, not necessarily mine. I have the stress and the ulcers—but that’s my job, right?

Leadership that effectively navigates between integrating and differentiating design will facilitate the establishment of “a culture that uses the users’ experience as the prioritization mechanism for all the possible work that needs to be done” (VP Design, information technology, Fortune 500) and will, ultimately, contribute positively to organizational performance.

Scaling Design Quantitatively and Qualitatively

Our findings suggest that scaling design and reaching design excellence across an organization refers not only to growing the design team in size (quantity), but also in caliber (quality).

From a *quantitative perspective*, “scaling design” refers to efforts to optimize the number of designers employed within the global design team. This happened in the companies we studied when a specific business unit within a company decided to build up in-house design capacity; when senior management provided investment to expand the number of satellite design studios across the globe; and when a company broadened the design areas it covered in-house (e.g., by growing the in-house UX design capacity).

When examined from a *qualitative perspective*, scaling design is related to talent management, making sure people within the design team have the requisite abilities and skills to act not only as effective tactical partners involved in back-end execution, but also as strategic partners involved in front-end

planning. Qualitative scaling also relates to the extent to which designers are actively involved in strategic decision making at the executive level, at the middle management (business unit) level, and at the project level. As the head of design at a professional services company explained, “I would say there is design excellence if design is an integral part of the organization—meaning that design is there, always, when strategic decisions are made.” Being involved in the decision-making process upfront will ensure influence on directions taken and will bring design into the strategy realm. The design team is generally considered “at scale,” and design excellence is within sight when it contributes effectively and efficiently from a tactical *and* strategic perspective across all relevant business units, functions, and geographies of a company. We illustrate the approach and results of scaling design in the following case study, describing the efforts of Eric Quint, co-author of this article and former senior executive design leader at 3M Company.

Scaling Design at 3M Company

From 2013 to 2020, Eric Quint was responsible for bringing design “at scale” within 3M Company, being its Chief Design Officer (CDO). 3M Company is an American multinational conglomerate, with its headquarters (HQ) in St. Paul, Minnesota, and being recognized for its innovations by “applying science to life.”³⁵

At the start of Quint’s tenure, 3M had a relatively small internal design team (about 20 designers), mainly supporting the consumer business group as one of their five company’s business groups. The focus of design activities was foremost on industrial design, graphic design, and packaging design operations. The design team was predominantly situated at the headquarters of 3M in St. Paul; in addition, there was a small design hub in Milan (Italy).

To elevate design within 3M both quantitatively and qualitatively, the CDO developed a multi-year design strategy and roadmap. One of the first outcomes of his strategizing efforts was a global design mission, clarifying the “how,” “what,” and “why” of 3M Design.³⁶ This mission not only provided guidance to the design team; it also facilitated collaboration with other internal stakeholders. Internal collaboration was further facilitated by means of institutionalizing a global design governance, describing ownership of design resources (in terms of reporting and budget ownership), investment allocations, and scope of contribution. Together with HR, a “design taxonomy” was developed, defining all design roles, related competencies, and calibrated salary scales, offering transparency and career development tools to 3M designers.

Under Quint’s leadership, considerable investment was generated to build a new, state-of-the-art 3M Design Center at the HQ. This became a flagship location for the company, hosting high-profile events with business partners, educational institutes, and local communities.³⁷

Over the years, the design team grew significantly, both at 3M HQ and internationally. More specifically, at the end of 2020, the number of designers in the global design team had grown tenfold to nearly 200 design professionals, and design studios had been

opened in Tokyo (Japan), Bangalore (India), and Shanghai (China). In addition, numerous new competences in brand design, UX design, and design research were developed, while existing design competences were further expanded. Also, over time, 3M designers were integrated into the innovation and brand activities of all 3M business groups, not just one business group.

This growth was, in part, the result of ongoing efforts to not only “tell” but also “show” the value of design to key organizational stakeholders. For example, a workbook on sustainability was developed by the design team, offering a guide for the 3M organization on how to design more sustainable solutions.³⁸ In close collaboration with internal stakeholders, the CDO and his team initiated and delivered a new brand platform and new company identity, which contributed to a substantial increase in the company’s brand value over time.³⁹ Quint expanded his sphere of influence into branding more formally when he became 3M’s first Chief Brand and Design Officer in 2019. During his tenure, the 3M Design team was awarded more than 100 international design awards, demonstrating external recognition for 3M’s design excellence.⁴⁰

Design Leadership Behaviors

To effectively navigate between integrating and differentiating the design team within an organization and reach design excellence at scale, seasoned design leadership is a prerequisite. We have identified five opposing pairs of design leadership behaviors as particularly effective in addressing the tensions associated with scaling toward design excellence. As shown in Figure 1, design leaders tend to “meander” between behaviors listed on the left (transformative, directive, proactive, intuitive, holistic) and seemingly paradoxical behaviors, listed on the right (affirmative, participative, responsive, systematic, specific). Our data suggest each opposing pair of leadership behaviors can be applied regardless of the type of tension identified.

Paradoxical Design Leadership Behavior (1): Transformative yet Affirmative

In line with the explorative attitude that characterizes design professionals, design leaders showcase *transformative* behavior, acting as change agents and instigating forward-looking directions and opportunities to drive progress within an organization. At the same time, to ensure design integration, design leaders are *affirmative* about the core strengths, goals, and priorities of the organization, and they use these to ground their transformative initiatives.

One of the core activities carried out by our informants is to (co-)formulate a future-oriented vision on the role of design within their organization and on the innovation pathway their organizations might take. In the words of the chief design officer at a home appliances manufacturer (European stock market listed), a “*northern star*” is needed “to break down the established pieces and be able to move the design function forward and move the organization forward.” Encouraging a forward-looking attitude was something that many of our informants felt the need to do on a continuous basis. As noted by a head of design

from a large professional services company, large, incumbent organizations “tend to change ever so slowly. . . . Every day, the inertia of the organization must be faced.” At several organizations, the design leaders had to operate in a risk-averse culture in which short-term profitability and short-term results were prioritized over the long-term perspective. To deal with the resulting tension, some design leaders actively strived to amass a portfolio representing a variety of projects and goals, where future-oriented vision and projects related to it were balanced with projects focused on short-term benefits. “Helping the company imagine the future, and at the same time, have a more achievable present is the thing that is my tightrope-walk every day” (Head of Design, e-commerce).

A constant “tightrope-walk” is a good way of describing what design leaders actually do: cast future scenarios to explore “what might be,” while at the same time respecting business constraints in ways that creatively exploit “what is”:

We have two modes. There’s what we call the slow moving, the constant pushing of the granite wall [obstructing]. Then there’s the: “Let’s-design-shiny-bowls” that keeps the momentum moving forward. For me, there’s just constant striving for that balance. . . . The honest truth is, keeping that balance is difficult. With the “shiny bowls,” the business managers are often like, “We don’t even get that, what’s that got to do with us?” But it is about keeping the momentum going. Being the chief optimist. (Design executive, global distribution/logistics/retail services)

While there was acknowledgment that a good design leader is a “*visionary*,” and an “*inspirational leader*,” providing “*energy and a vibe*” to the design team, there was also recognition that a design leader needs to be *affirmative* to get things done. This executive design leader reflected on why being realistic and reducing your ambitions and compromise (“putting water in your wine”) is sometimes needed:

I think a design leader must be inspirational. But you sometimes have realistic and pragmatic kinds of challenges. So, you cannot be a utopian kind of figure, sort of like only inspiration. . . . If you go to a board meeting, for instance, and you’re not level grounded in what’s happening there, sort of aware of the politics and able to put some water in your wine, as we call it, then you have a problem. While you might inspire the design team, all your inspiration cannot be implemented because it is not based in the reality of the organization you are working for. (VP Design; professional services)

Put differently, a design leader must not only understand what motivates their designers and act accordingly, but also understand the business context. It is about understanding that “there are tradeoffs that take place in business decisions, and you need to make sure that you [as design leader] are not the bull in a china shop” (Design Director, Healthcare, Fortune 500). Being “a bull in a china shop” and hence acting in a rather inconsiderate, tactless way will negatively

affect internal alignment with the other organizational stakeholders, and “getting things done” within the organization will become much more difficult. Hence, calibrating when to challenge the status quo and when to adapt to organizational needs will enable design leaders to manage cross-functional tensions related to different priorities and timelines, with positive consequences for their scaling efforts.

Paradoxical Design Leadership Behavior (2): Directive yet Participative

To preserve the distinctiveness of the design team, design leaders need to be *directive*, setting firm boundaries when interacting with their team and other organizational stakeholders. Design leadership requires fearlessness and resilience to help reach the vision set for the team. Even so, *participative* leadership is also sometimes needed, as it will enable further integration of the design team into new areas and into the organization more broadly. A more participative leadership style entails accommodating different stakeholder perspectives and adopting a collaborative mindset in certain areas of decision making to build bridges between design and the other main disciplines and businesses in the company.

Our informants suggested that good design leaders are those who have the willingness and ability “to stand tall and champion design” and thereby ensure that design priorities and values are sufficiently considered (Head of Design of a financial services company, Asia Pacific stock market). Another design leader tried to invert the trend of “management asks, we respond. Instead, we propose, and then they respond positively, hopefully” (VP Design, automotive, European stock market). Effective design leadership sometimes requires disagreement with senior management “to stay true to what customers really want” (Head of Design, financial services, Asia Pacific stock market). One respondent said that, as a design leader, you are compelled to “fight for what you believe in” (Design Director, Healthcare, Fortune 500) and to be “somewhat subversive with goodness in your heart” (Chief Design Officer, Healthcare, Fortune 500). A design leader from a European consumer electronics company remembered his former CDO, who “was frequently provoking others.” Although this “created friction,” the conflicts helped the company to think more outside the box and gave his design team more room to be innovative. It can be very effective for a design leader to utilize disagreement as a resource for clarity and progress.

A design leader needs to be *participative*, on the other hand, and empathetic to other stakeholders’ priorities and objectives. The goal is to “manage ideas through the organization” and facilitate collaboration. For example, in the following quotation, a design leader remembers a discussion with the Chief Technology Officer (CTO) about his designers’ way of working.

I was in a design review with the CTO, and he goes, “Every time I come to one of these reviews, the customer journey map looks different.” I said, “Well, that’s because they are designers; they are creative and it’s how they express themselves. It’s all the same information; it’s just visually different.” He looked at me and he

goes, “But you’re making it harder than it should be. Do you really need to be so creative on something as simple as a journey map?” I said, “Well, that’s actually a good point.” So, then we agreed we didn’t need 24 styles of journey maps, that we probably only needed three or four. So then, for all the popular tools, we developed standards for how to express ourselves. (VP Design, technology conglomerate, Fortune 500)

Design distinguishes itself from other disciplines and knowledge areas by prioritizing what is desirable from a user perspective, “seeing the world through the eyes of the people that matter most—the end users, the customers, the patients, the travelers, the buyers of the products and services” (SVP Design, process transformation). However, at the same time, our design leaders acknowledged the need to consider business viability and technical feasibility criteria, thereby building bridges with other disciplines such as engineering and project management. As the CDO of a financial services company (Fortune 500) explained,

Through collaboration and diverse perspectives, you want to be able to strike that balance between what’s desirable, what’s business viable, and what’s technically feasible. Every role needs to care about all three of those factors. Sometimes there is tension between those three factors. . . . Holding that space of healthy tension takes some design leadership.

In their attempts to integrate the voice of design into the company, design leaders do not shy away from conflict—they acknowledge and protect its importance as constructive. To cite a design leader from an aerospace company who reflected on the importance of conflict:

It’s about meeting the needs of your [internal] stakeholders, but what I also strongly believe is that, to get good design, actually, it’s all about conflict, and maybe I need to be careful about the use of the word conflict, because it’s about positive conflict. That’s why a good relationship is really required, because we [designers] need to be able to challenge engineering, engineering needs to be able to challenge us, but we need to be able to do that in a really constructive way.

This example demonstrates that to persuade different organizational stakeholders to be perceptive and integrate the design perspective, it is essential to invest in solid, trust-filled relationships. Using formal authority—for instance, through a clear mandate from senior management—can accelerate the process of scaling design by creating resource availability, increasing visibility, and expanding opportunities for strategic collaborations. However, as explained by a seasoned design leader from a home appliances company, early attempts to scale design had limited success, despite CEO support, because the former design leader had failed to engage in dialogue and a process of alignment with business leaders at the middle management level. As a result, attempts to expand design were

perceived as “interference,” threatening, and failed. In the words of an executive design leader of a technology conglomerate (Fortune 500),

It doesn’t matter how brilliant you are, what a great designer you are, what a great leader you are, you can’t accomplish anything unless you have trusting relationships with your colleagues and the people around you and the company that you want to influence. Otherwise, they don’t want to work with you.

Hence, to be successful in scaling the strategic impact of their teams, design leaders need to balance a top-down approach with a collaborative one. They must empathize with the different priorities and ways of working with other stakeholders and build support from the ground up instead of initiating design initiatives via CEO mandate.

Paradoxical Design Leadership Behavior (3): Proactive yet Responsive

Good design leaders need to be *proactive*, to create and act upon opportunities to promote and deploy the unique capabilities of the design team. On the other hand, design leaders need to be *responsive* to their environment and to initiatives from colleagues, to adapt their scaling plans to changing circumstances, exploit the advantage of possible synergies, and facilitate implementation.

Often, the scope of leadership roles is not defined in detail up front, which offers design leaders room to be proactive and create opportunities that will further integrate design inside the organization. An example from our research is a design leader working for a telecommunications company who took the initiative to implement customer experience labs. This initiative was not part of the company’s strategic plans but was highly successful, not in the least because it provided a physical space for everybody in the organization to interact with customers. However, as noted by a design leader from a health-care company (Fortune 500), “Doing new and interesting things that people didn’t ask you to do,” is not without risk, because “sometimes you get in trouble, sometimes you get nowhere. You fail at least as often as you succeed when you try to do new and interesting things that management did not ask you to do.”

A design leader having a sense of proactiveness was considered a good indication of being effective at the job. The design executive of a fast-moving consumer goods firm (European stock market listed) noted the following when reflecting on the need to be proactive:

I always take it as a failure of my leadership if someone, let’s say my boss, starts asking me, “Isn’t it time that you created a vision for design?” Then I’m too late. I should have done that already because I feel it’s my role, and my responsibility to lead the way, to come up with new ideas, new visions, new initiatives before the world starts asking for them.

Nonetheless, our informants recognized the value of being *responsive* to projects and initiatives already occurring within their organizations. A design

leader of a healthcare company (Fortune 500) indicated that, in the early stages of their scaling journey, the focus was on “finding partners inside the company who wanted to take a chance, who had problems that they couldn’t solve, and get them to collaborate with the design function to solve those problems.” That responsive approach, trying to solve an existing problem, facilitated stakeholder engagement.

Responsiveness was also evidenced in terms of scaling efforts. As we found in our study, scaling design did not necessarily always equate to scaling “up” (i.e., expansion) of the design team. It sometimes also required design leaders to scale the size of the design team “down” as a response to external and internal contingencies. For example, when an organization divested a certain business unit, one of our informants had to adjust the size and blend of competencies available in the design team to keep it relevant to the new course the organization was taking.

Finally, informants repeatedly mentioned the importance of balancing proactiveness in scaling efforts with outcomes that are consistent with what is already in place inside the organization. For instance, in an automotive company, the design leader focused their scaling initiatives on extending the scope of the design team to brand experience. The goal was to “introduce creativity within the different brands,” but with a clear recognition of established brand values and company ethos. In a similar vein, the design leader of a financial services company (Fortune 500) took the initiative to develop a problem-solving approach not only for design challenges, but also for business and technology challenges. While maintaining the central role of design priorities and ways of working, the design leader put much effort into harmonizing the new approach with other core priorities and practices well-ingrained inside the company (i.e., systems thinking, agile and lean methodologies), which facilitated acceptance of the new problem-solving approach beyond the design team. Overall, the ability to balance responsiveness and proactiveness requires sensitivity to context and a lack of hubris, while having an entrepreneurial attitude.

Paradoxical Design Leadership Behavior (4): Intuitive yet Systematic

The fourth opposing pair of design leadership behavior relates to how to take and substantiate decisions. It may not be possible to base every decision entirely on facts and figures, and design leaders might use their expert *intuition* or rely on the power of engaging storytelling to drive progress. However, there are also circumstances where a more *systematic* approach may be needed—using facts, rationality, structured processes, and methods.

Design leaders highlighted the importance of balancing quantitative data with qualitative data to support different decision-making approaches, and of presenting results in a way that is engaging and at the same time familiar to a larger variety of organizational stakeholders. This would allow them to address the rational and the emotional sides of business leaders, which can, ultimately, lead to real commitment to creative proposals. One design leader

from a professional services company said this about interacting with top-tier management,

The C-Suite always likes numbers. And having a business case behind the design strategy that you're putting forward is indeed really powerful and necessary. But I actually think that, for the C-Suite, good storytelling and conviction are also really powerful. Because at the end of the day, they're also human.

Not everything can be expressed in hard figures—this includes the value design brings when generating future scenarios. When it comes to measuring the performance of the design team, several leaders opted for a combination of more traditional quantitative metrics with more qualitative metrics that capture the uniqueness of the design contribution. For instance, the global design director of a retail company combined qualitative metrics such as “improved customer perceptions” and “brand equity stewardship” with traditional quantitative metrics such as cost reductions and sales. Other design leaders pushed back on the executive need to be overly systematic when measuring performance outcomes.

We would like to avoid having something where every month we have to report on 50 different performance criteria and measures and show how good or how bad we are. That would be killing a lot of motivation and spontaneity that we have. You know, keeping the passion that we talked about at the beginning of our conversation. (VP Design, automotive)

An ability to be intuitive and systematic is also important when interacting with the members of the design team. Design leaders who select among competing design proposals often use their expert intuition, cultivated over years of experience, but must at the same time justify their selection to maintain cohesiveness and motivation within the team. This is exemplified by one head of design of an automotive company (European stock market listed), who described how he goes about selecting the best car design among competing designs produced by his team:

It's extremely important for me that I'm being honest and I give everyone a chance, but at the same time that I explain why I chose to go with this model or not. I need to do the latter really very well, because I cannot just choose the best design. I need to choose the best design and explain why.

Creativity and imagination are distinctive traits of the design practice, and thus something that design leaders need to preserve in the process of scaling. Indeed, many design leaders in our sample invested a significant amount of time and resources to create and cultivate a safe environment and culture for creativity to unfold and to pursue formal recognition and appreciation for creativity in the organizational structure and HR taxonomy. However, design leaders also promote a more structured way of working within and among their teams so that creativity is balanced with the need to deliver outcomes efficiently and on time. For

example, the design leader of a globally operating DIY manufacturer (with their HQ in the Asia Pacific), recounted that, when he joined the company, the design team always delivered late. As a result, “they didn’t have the respect of the rest of the organization.” To change this, the design leader successfully incorporated certain project management skills into the design team, making sure they owned the whole process, including delivery.

In the end, they were able to design anything in eight weeks from start to finish. . . . That’s an example of professionalizing design, which gives them the power to make changes and be respected internally. That was the first step to getting them on a salary level which equaled engineers and beyond, which then allowed us to develop a stronger team.

Hence, being “intuitive yet systematic” requires design leaders to, on one hand, engage in activities that empower creativity within the design team and allow for expert intuition but, on the other hand, also align the design team with more structured ways of working and rational decision-making to integrate with other disciplines and functions in the organization.

Paradoxical Design Leadership Behavior (5): Holistic yet Specific

The fifth opposing pair of design leadership behavior refers to design leaders’ focus when creating design excellence at scale. On one hand, design leaders must be *holistic*, identifying and striving to reach the key milestones of the excellence process without getting distracted by details. On the other hand, design leaders must be *specific* and pay attention to particulars that have a substantive influence on design outcomes, to identify and incorporate diverse and at times contrasting perspectives of internal and external stakeholders.

To initiate the process of design excellence, leaders generally begin by defining an overarching vision of the desired state and determining the main building blocks needed to reach it. While this strategizing phase requires a holistic approach, our informants recognized the importance of focusing on specificities during execution.

To ensure that designers on the team and other stakeholders can understand, relate to, and act upon the vision and its building blocks, translation into concrete operational plans is needed. These plans will contain specific design objectives for the design team in general, and for individual designers specifically, while also reflecting the objectives of the business units that design is collaborating with. As a design executive at a professional services company explained,

We presented our design objectives to the whole team, and then we broke them down into hot topics. And then we had the team go away and work on statements in terms of how we might deliver on those key topics. That then became a set of initiatives and activities that we would perform to help us get there.

Communicating and openly discussing how specific design projects contribute to fulfilling an overarching vision and set of goals helps to engage the

design team with the excellence journey. In the words of the design leader operating in the automotive industry, reflecting on the importance of communicating the “bigger picture”:

Involving people in the bigger picture is one of the most important things. People in the team should understand at any time how their work—even if they are only working on a small portion of a glove box in the car—fits the bigger picture from a business point of view, from a technology point of view. . . . It means making sure that they feel that what they are doing is really providing value.

The design strategy of a leader from a consumer goods company (Fortune 500) had defined a broad, generic goal of contemporizing the nostalgic feeling of the brand and how to bring this to life in new ways. This breadth of scope allows designers to be creative both with how they interpret the nostalgic feeling and with the means they use to express brand values. In a similar vein, a design director at a consumer packaged goods company (Fortune 500) pointed out that their holistic design mission facilitated effective collaboration across the company’s different business units.

It’s really about improving people’s lives. So it has very generic content. And then every division makes it a lot more concrete. For example, in the home care division, they identify areas in people’s lives where they want to drive innovation.

Hence, envisioning emerged as a balancing act between the specificity used to define the vision and strategy and the need to offer enough space to designers to be creative with it.

Conclusion

In the present research, we have focused on design leaders and how they can build and scale design excellence within globally operating organizations. We have identified a core paradox for design leaders at large organizations: the need to integrate design within the fabric of an organization to realize design-driven outcomes, but also to differentiate design because its uniqueness is what ultimately delivers value. Thus, the design leader is tasked to balance an approach of “we/together” versus “us/separate” and realize a design team that is highly integrated *and* differentiated at the same time. With our research, we complement prior research, which tends to be more focused on how to integrate design within an organization.⁴¹

When it comes to differentiating design, we have illustrated design’s uniqueness through the tensions that emerge when designers collaborate with other organizational stakeholders. These tensions can be clustered into three categories: differences in priorities/values, differences in workflow/timing, and differences in decision-making style. Some of the tensions we identified have been discussed in other publications.⁴² Nevertheless, our research contributes to the literature by expanding and systematizing these tensions from the perspective of design leaders.

Furthermore, our findings contribute to a better understanding of coping with paradoxes from a leadership perspective. Research on how leaders may approach paradoxes is in limited supply, especially in the areas of creativity and design.⁴³ This is problematic considering the preponderance of paradoxes in organizational settings. In this article, we provided insights into how design leaders may tackle the design integration and differentiation paradox. More specifically, our findings suggest the need for design leadership behavior that is fluid and adaptive, meandering between five opposing behaviors according to the situation and over time: being transformative yet affirmative; being directive yet participative; being proactive, yet responsive; being intuitive, yet systematic; and being holistic, yet specific.

Mastering and meandering between the above five pairs of opposing leadership behaviors will help leaders obtain design excellence at scale. “At scale” means design team optimization in terms of quantity (size) *and* in terms of quality (impact and value delivered). Design excellence at scale is a means to an end: it serves to support the organization in gaining and sustaining competitive advantage. Prior research has suggested company performance benefits when investing in design.⁴⁴

The identified behaviors point toward a leadership style that is both objective (cognition-driven, quantifiable, individualistic) and subjective (sensory, experience-driven, relational). Allowing for subjective dimensions and seeking excellence in craft (rather than purely objective, profit-seeking behavior) has been described in the literature as “aesthetic leadership.”⁴⁵ We have presented a set of specific behaviors that embody aesthetic leadership and pave the way toward its operationalization. However, rather than being purely subjective or objective, a leadership style is needed that incorporates both when operating in large, complex organizations.

Moving to the practical implications, our study highlights the importance of taking a paradoxical perspective to lead in-house design teams. To address the tensions deriving from the uniqueness of design, design leaders may want to learn to effectively balance the needs of their design team and of other organizational stakeholders. Our identified leadership behaviors offer design leaders a palette of behaviors to guide them in doing so effectively. Our findings sensitize design leaders on the importance of not only mastering behaviors that are traditionally in the chords of designers (e.g., being transformative, participative, holistic) but also embracing other behaviors essential for reaching design excellence (e.g., being affirmative, systematic, specific). Furthermore, consciously meandering between the pairs of opposing leadership behaviors identified in this research will require design leaders to be adaptive and context-sensitive. While this is no easy feat,⁴⁶ our research suggests it will help design leaders reach and maintain design excellence.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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Supplemental Material

Supplemental material for this article is available online.

Notes

1. On the increase of in-house design teams in recent years, see, for example, D. Field, "6 Major Tech Companies Have Doubled Their Design Hiring Goals in the Last Half Decade," *TechCrunch*, May 31, 2017, <http://tcrn.ch/2qBJatt>; M. Long, "Debunking Myths about In-House Design Teams," *Design Week*, October 8, 2020, <https://www.designweek.co.uk/issues/5-11-october-2020/in-house-myths/>. On the rise of the chief design officer, see, for example, J. Pallister, "The Secrets of the Chief Design Officer," *The UK Design Council*, April 27, 2015; <https://www.designcouncil.org.uk/our-work/news-opinion/secrets-chief-design-officer-0/>. On the value design can bring from a consulting perspective, see, for example, B. Sheppard, H. Sarrazin, G. Kouyoumjian, and F. Dore, "The Business Value of Design," *McKinsey Quarterly*, October 25, 2018, <https://www.mckinsey.com/business-functions/mckinsey-design/our-insights/the-business-value-of-design>.
2. R. Chiva and J. Alegre, "Investment in Design and Firm Performance: The Mediating Role of Design Management," *Journal of Product Innovation Management*, 26/4 (July 2009): 424-440; R. Turner, *Design Leadership: Securing the Strategic Value of Design* (London: Routledge, 2016); M. Gruber, N. de Leon, G. George, and P. Thompson, "Managing by Design," *Academy of Management Journal*, 58/1 (February 2005): 1-7; M. Dalrymple, S. Pickover, and B. Sheppard, "Are You Asking Enough from Your Design Leaders?" *McKinsey & Company*, February 19, 2020, <https://www.mckinsey.com/business-functions/mckinsey-design/our-insights/are-you-asking-enough-from-your-design-leaders>; E. Quint, G. Gemser, and G. Calabretta, *Design Leadership Ignited: Elevating Design at Scale* (Stanford, CA: Stanford University Press, 2022).
3. This definition builds on the general definition of leadership as proposed in E. A. Locke, "Leadership: Starting at the Top," in *Shared Leadership: Reframing the Hows and Whys of Leadership*, ed. C. L. Pearce and J. A. Conger (Thousand Oaks, CA: Sage, 2003), pp. 271-284.
4. On design leadership and design leaders, see, for example, J. Gloppen, "Perspectives on Design Thinking and Design Thinking and How They Relate to European Service Industries," *Design Management Journal*, 4/1 (October 2009): 33-47; R. Turner and A. Topalian, "Core Responsibilities of Design Leaders in Commercially Demanding Environments" (Paper presented at the inaugural session of the Design Leadership Forum, organized by Alto Design Management, London, England, July 2002).
5. R. Verganti, *Design-Driven Innovation: Changing the Rules of Competition by Radically Innovating What Things Mean* (Boston, MA: Harvard Business Press, 2009).

6. See, for example T. Björklund, H. Maula, S. A. Soule, and J. Maula, "Integrating Design into Organizations: The Coevolution of Design Capabilities," *California Management Review*, 62/2 (Winter 2020): 100-124; K. Michlewski, "Uncovering Design Attitude: Inside the Culture of Designers," *Organization Studies*, 29/3 (March 2008): 373-392; M. B. Beverland and F. J. Farrelly, "Designers and Marketers: Toward a Shared Understanding," *Design Management Review*, 22/3 (2011): 62-70; G. Calabretta, G. Gemser, and N. Wijnberg, "The Interplay between Intuition and Rationality in Strategic Decision Making: A Paradox Perspective," *Organization Studies*, 38/3-4 (April 2017): 365-401.
7. For recent examples of integrating design in terms of an approach ("design thinking") or a capacity, see C. Wrigley, E. Nusem, and K. Straker, "Implementing Design Thinking: Understanding Organizational Conditions," *California Management Review*, 62/2 (Winter 2020): 125-143; Björklund et al., op. cit.; C. Cautela, M. Simoni, and P. Moran, "'Microfoundations' of Dynamic Capabilities: An Empirical Analysis of 'Excellent' Italian Design Firms," *Journal of Product Innovation Management*, 39/1 (2022): 3-23; L. Carlgren and S. BenMahmoud-Jouini, "When Culture Collide: What Can We Learn from Frictions in the Implementation of Design Thinking?" *Journal of Product Innovation Management*, 39/1 (2022): 44-65; S. Magistretti, E. Bellini, C. Cautela, C. Dell'Era, L. Gastaldi, and S. Lessanibahri, "The Perceived Relevance of Design Thinking in Achieving Innovation Goals: The Individual Microfoundations Perspective," *Creativity and Innovation Management*, 31 (2022): 740-754.
8. On literature tackling this paradox of similarity yet distinctiveness from an identity perspective, see, for example, S. Cuganesan, "Identity Paradoxes: How Senior Managers and Employees Negotiate Similarity and Distinctiveness Tensions Over Time," *Organization Studies*, 38/3-4 (2017): 489-511 (a study of a law enforcement department); A. Langley, K. Golden-Biddle, T. Reay, J. Denis, Y. Hébert, L. Lamothe, and J. Gervais, "Identity Struggles in Merging Organizations," *The Journal of Applied Behavioral Science*, 48/2 (June 2012): 135-167 (a study of merging organizations operating in the health space).
9. On the impact of design as an approach (i.e., design thinking), see, for example, J. Liedtka, "Why Design Thinking Works," *Harvard Business Review*, 96/5 (May 2018): 72-79; C. Nakata and J. Hwang, "Design Thinking for Innovation: Composition, Consequence, and Contingency," *Journal of Business Research*, 118 (September 2020): 117-128. On the business outcomes of design investments, see, for example, G. Gemser and M. Leenders, "How Integrating Industrial Design in the Product Development Process Impacts on Company Performance," *Journal of Product Innovation Management*, 18/1 (2001): 28-38; M. Candi and R. J. Saemundsson, "Exploring the Relationship between Aesthetic Design as an Element of New Service Development and Performance," *Journal of Product Innovation Management*, 28/4 (2011): 536-557; J. Moultrie and F. Livesey, "Measuring Design Investment in Firms: Conceptual Foundations and Exploratory UK Survey," *Research Policy*, 43/3 (April 2014): 570-587.
10. B. Von Stamm, "Whose Design Is It: The Use of External Designers," *The Design Journal*, 1/1 (1998): 41-53.
11. Chiva and Alegre, op. cit.; Gruber et al., op. cit.; Quint et al., op. cit.
12. Beverland and Farrelly, op. cit.; Björklund et al., op. cit.; Calabretta et al., op. cit.; Carlgren and BenMahmoud-Jouini, op. cit.; Michlewski, op. cit.
13. K. D. Elsbach, B. Brown-Saracino, and F. J. Flynn, "Collaborating with Creative Peers," *Harvard Business Review*, 93 (October 2015): 118-121.
14. M. Gotsi, C. Andriopoulos, M. W. Lewis, and A. E. Ingram, "Managing Creatives: Paradoxical Approaches to Identity Regulation," *Human Relations*, 63/6 (June 2010): 781-805.
15. Calabretta et al., op. cit.
16. Björklund et al., op. cit.
17. Wrigley et al., op. cit.
18. Björklund et al., op. cit.
19. On paradox theory, see, for example, Gotsi et al., op. cit.; R. DeFillippi, G. Grabher, and C. Jones, "Introduction to Paradoxes of Creativity: Managerial and Organizational Challenges in the Cultural Economy," *Journal of Organizational Behavior*, 28/5 (2007): 511-521.
20. M. Lewis, "Exploring Paradox: Toward a More Comprehensive Guide," *Academy of Management Review*, 25/4 (2000): 760-776; W. Smith and M. Lewis, "Toward a Theory of Paradox: A Dynamic Equilibrium Model of Organizing," *Academy of Management Review*, 36/2 (April 2011): 381-403.
21. J. G. March, "Exploration and Exploitation in Organizational Learning," *Organization Science*, 2/1 (February 1991): 71-87.
22. Cuganesan, op. cit.; Langley et al., op. cit.

23. See, for example, DeFillippi et al., op. cit.; Gotsi et al., op. cit.; S. Ahuja, N. Nikolova, and S. Clegg, "Paradoxical Identity: The Changing Nature of Architectural Work and its Relation to Architects' Identity," *Journal of Professions and Organization*, 4/1 (March 2017): 2-19; D. R. Eikhof and A. Haunschild, "For Art's Sake! Artistic and Economic Logics in Creative Production," *Journal of Organizational Behavior*, 2/5 (July 2007): 523-538.
24. W. Smith, "Dynamic Decision Making: A Model of Senior Leaders Managing Strategic Paradoxes," *Academy of Management Journal*, 57/6 (December 2014): 1592-1623; W. Smith and M. Besharov, "Bowing before Dual Gods: How Structured Flexibility Sustains Organizational Hybridity," *Administrative Science Quarterly*, 64/1 (March 2019): 1-44; Smith and Lewis, op. cit.
25. See, for example, Lewis, op. cit.; Smith and Lewis, op. cit.; C. Andriopoulos and M. Lewis, "Exploitation-Exploration Tensions and Organizational Ambidexterity: Managing Paradoxes of Innovation," *Organization Science*, 20/4 (July/August 2009): 696-717; L. Lüscher and M. Lewis, "Organizational Change and Managerial Sensemaking: Working through Paradox," *Academy of Management Journal*, 51/2 (April 2008): 221-240.
26. For example, Smith and Besharov, op. cit.
27. For example, Gotsi et al., op. cit.; Smith and Besharov, op. cit.; E. Knight and S. Paroutis, "Becoming Salient: The TMT Leader's Role in Shaping the Interpretive Context of Paradoxical Tensions," *Organization Studies*, 38/3-4 (April 2017): 403-432.
28. On the lack of paradox studies on an individual level, see J. Schad, M.W. Lewis, S. Raisch, and W.K. Smith, "Paradox Research in Management Science: Looking Back to Move Forward," *Academy of Management Annals*, 10/1 (January 2016): 5-64; D. Waldman, L. Putnam, E. Miron-Spektor, and D. Siegel, "The Role of Paradox Theory in Decision Making and Management Research," *Organizational Behavior and Human Decision Processes*, 155 (November 2019): 1-6. Notable empirical studies on leadership behavior or practices pertaining to paradoxes in general (not focused on leadership for creativity and innovation) include: Y. Zhang, D. A. Waldman, Y. Han, and X. Li, "Paradoxical Leader Behaviors in People Management: Antecedents and Consequences," *Academy of Management Journal*, 58/2 (April 2015): 538-566; Smith, op. cit.; M. W. Lewis, C. Andriopoulos, and W. K. Smith, "Paradoxical Leadership to Enable Strategic Agility," *California Management Review*, 56/3 (Spring 2014): 58-77.
29. Because the design leaders we initially sampled were all male, we specifically asked for female peers. However, female design leaders operating at a senior level within relatively large-sized companies are relatively scarce, which is also reflected in our ultimate sample: Of the senior design leaders sampled, 17% were female.
30. Design leaders indicated that having extensive "hands-on" design experience ("having a design portfolio") tends to be more important than educational background in terms of being able to effectively lead the design team.
31. Examples of questions asked are leaders' education received and time spent in their current role (topic 1); whether leaders had defined a vision and a related roadmap for the design team and how they organized the design team in terms of physical location and reporting lines (topic 2); and leaders' approach for increasing the number of designers in their team and their strategic impact, and for increasing design investment and commitment within the organization (Topic 3).
32. To avoid informant bias, we implemented some precautionary and corrective actions, following the guidelines of: M. B. Miles and A. M. Huberman, *Qualitative Data Analysis: A Sourcebook of New Methods* (Beverly Hills, CA: Sage, 1994); C. C. Miller, L. B. Cardinal, and W. H. Glick, "Retrospective Reports in Organizational Research: A Reexamination of Recent Evidence," *Academy of Management Journal*, 40/1 (February 1997): 189-204. More specifically, the actions we undertook were the following. First, the study objectives and the data collection process were clearly explained to the informants, and we emphasized the confidentiality of the interviews and results. Second, free reporting was encouraged, allowing informants not to answer a question when they did not remember clearly. We also integrated in-depth interview data with other data sources. For instance, we examined the leaders' LinkedIn posts, professional and industry reports where the design leader or their company was discussed, and design awards won by the design leaders and their teams over the years.
33. Miles and Huberman, op. cit.; D. Gioia, K. J. Corley, and A. L. Hamilton, "Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology," *Organizational Research Methods*, 16/1 (2013): 15-31.
34. Our research approach is inspired by the guidelines as provided by Gioia et al., op. cit. These scholars describe how to conduct inductive research with "qualitative rigor" and suggest that, next to the identification of concepts that describe or explain the phenomenon of interest, another core element is to show the dynamic relationships between the identified concepts.

35. Since 2015, 3M Company has positioned itself with an updated brand platform: “3M Science, Applied to Life.” This represents the various ways 3M science helps to improve people’s life. More information about 3M Company in general and its (brand) positioning can be found on 3M’s corporate website: https://www.3m.com/3M/en_US/company-us/about-3m/.
36. Quint and his leadership team formulated the following design mission: “Through collaborative creativity, we design meaningful brand experiences and enrich innovation. Our diverse design competencies help drive competitive advantage, grow our business, delight our customers, and make a positive impact on our world.” This design mission explains how the design team works (utilizing “collaborative creativity”), what the design team does (designing brand experiences and enhancing innovation), and why the design team exists (to generate value for the company and society at large). The mission of 3M Design can be found on the company website: https://www.3m.com/3M/en_US/design-us/.
37. For more information about the 3M Design Centre, see, for example, R. Noe, “A Look at 3M’s Design Center,” *Core77*, November 17, 2016, <https://www.core77.com/posts/58001/A-Look-at-3Ms-New-Design-Center>; the official press release from 3M: <https://investors.3m.com/news/news-details/2015/3M-Further-Amplifies-Design-with-Announcement-of-New-3M-Design-Center/default.aspx>.
38. More information on this sustainability workbook, distributed internally within 3M, can be found on 3M’s website: https://www.3m.com/3M/en_US/design-us/all-stories/full-story/?storyid=41fe35f6-c56f-4845-ad19-343b94e13efa.
39. The new brand platform and new corporate visual identity of 3M were introduced in 2015. When comparing the brand value of 3M Company in 2014 (6,177 \$M) and 2020 (9,409 \$M) (using the assessment of Interbrand), the value of the 3M Company brand grew by 52%. For Interbrand’s assessment of 3M’s brand value in 2014, see: <https://www.rankingthebrands.com/The-Brand-Rankings.aspx?rankingID=378&year=857> and for 2020, see: https://learn.interbrand.com/hubfs/INTERBRAND/Interbrand_Best_Global_Brands%202020.pdf.
40. For example, in 2019, a 3M Healthcare project (in which 3M designers worked closely together with other 3M organizational stakeholders) won the so-called “DMI Value Award (1st Place),” an annual award from the Design Management Institute which recognizes teams who have delivered significant value through design (practices): <https://www.dmi.org/page/2019DVA3MDesign>. Another example are the Red Dot Design awards that 3M has won over the years (the “Red Dot Award” is a reputed annual design competition that recognizes excellence in product design, brand and communication, and design concept): <https://www.red-dot.org/search?q=3m&solr%5Bpage%5D=4>; or the iF Awards that 3M won over the years (iF Awards are one of the oldest international design award competitions and are considered to be one of the most prestigious design award competitions worldwide): <https://ifdesign.com/en/winner-ranking/winner-overview/?awardId=2&profile=3M%7Cid%3D14072&sort=desc&yearId=4>.
41. See, for example, Björklund et al., op. cit.; Carlgren and BenMahmoud-Jouini, op. cit.; Wrigley et al., op. cit.
42. Beverland and Farrelly, op. cit.; Björklund et al., op. cit.; Calabretta et al., op. cit.; Carlgren and BenMahmoud-Jouini, op. cit.
43. For notable examples of empirical studies on paradoxical leadership, see Zhang et al., op. cit. (focussed on people management); Smith, op. cit. (on top management teams from six business units of one high-tech company); Lewis et al., op. cit. (focused on paradoxical practices for strategizing at the top management level, studying five “exemplary firms”). For conceptual papers on paradoxical leadership in general, see, for example, Waldman et al., op. cit.; S. Volk, D. A. Waldman, and C. M. Barnes, “A Circadian Theory of Paradoxical Leadership,” *Academy of Management Review* (in press, published electronically April 18, 2022).
44. On the impact of design as an approach (i.e., design thinking), see, for example, Liedtka, op. cit.; Nakata and Hwang, op. cit. On the business outcomes of design investments, see, for example, Gemser and Leenders, op. cit.; Candi and Saemundsson, op. cit.; Moultrie and Livesey, op. cit.
45. See, for example, H. Hansen, A. Ropo, and E. Sauer, “Aesthetic Leadership,” *The Leadership Quarterly*, 18/6 (December 2007): 544-560; J. Dobson, *The Art of Management and the Aesthetic Manager: The Coming Way of Business* (Westport, CT: Greenwood Publishing, 1999).
46. Recent research suggests that a paradox mindset—that is, the extent to which one is accepting of and energized by tensions—might help. E. Miron-Spektor, A. Ingram, J. Keller, W. K. Smith, and M. W. Lewis, “Microfoundations of Organizational Paradox: The Problem Is How We Think about the Problem,” *Academy of Management Journal*, 61/1 (February 2018): 26-45.