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Different Ambidextrous Learning Architectures and the Role of HRM Systems

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Abstract

We show how different ambidextrous learning architectures can be created and maintained by the means of consistent HRM systems and argue how these HRM systems facilitate ambidextrous learning.

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Abstract

During the past decade ambidexterity has emerged as the central research stream in organization science to investigate how organizations manage to remain successful over time. Using the lens of organizational learning, ambidexterity can be defined as the simultaneous pursuit of exploration and exploitation to achieve efficiency and innovation. However, the link between ambidexterity and the human resource management (HRM) of a firm is still a blind spot on the ambidexterity research map. To shed light on this issue, we show how different ambidextrous learning architectures can be created and maintained by the means of consistent HRM systems. By doing so, we show how HRM systems as specific bundles of HRM practices facilitate ambidextrous learning. Thereby we emphasize the challenge of creating and sustaining the horizontal and vertical fit of an HRM system with regard to different ambidextrous designs.

Keywords: *Ambidexterity, Exploration and Exploitation, HRM Systems, Innovation and Efficiency, Organizational Learning, Strategic HRM*

Introduction

The history of old, successful organizations shows that they ensure long-term survival by ensuring innovation while continuously building on established routines and capabilities. Thus, managing the tensions between stability and change is a central topic in organization science and management practice (e.g., Christensen & Ovendorf, 2000; Farjoun, 2010; Katila & Ahuja, 2002; Probst & Raisch, 2005). Ambidexterity has emerged as the central research stream in trying to answer how organizations can simultaneously pursue the antagonistic learning modes of exploration and exploitation, i.e. how to explore new opportunities while contemporarily exploiting existing capabilities (Benner/Tushman, 2003; Gibson & Birkinshaw, 2004; Gupta, Smith, & Shalley, 2006; He & Wong, 2004; Simsek, Heavey, Veiga, & Souder, 2009; Tushman & O'Reilly, 1996). However, despite of increasing and widespread endeavors to explore the antecedents (e.g. organizational design, structure, leadership) and moderating factors (e.g. environmental dynamism, market competitiveness, firm scope) of organizational ambidexterity as well as their interplay, there are still several blind spots on the ambidexterity research map (Lavie, Stettner, & Tushman, 2010; Raisch & Birkinshaw, 2008; Simsek et al., 2009). One of those blind spots refers to the role of the human resource management (HRM) system to support different ambidextrous learning architectures (Kang & Snell, 2009; Swart & Kinnie, 2010). Scholars argue that different antecedents induce different forms of ambidexterity (Simsek, 2009; Raisch & Birkinshaw, 2008) and the configuration of an organization's learning architecture varies as it develops and grows (Güttel et al., 2011). However, previous research neglected the pivotal role of the HRM system as a central element to guide human behavior and consequently organizational learning processes in different ambidextrous designs (e.g Kang & Snell, 2009).

To close this research gap, we show how different forms of ambidexterity with various strategic purposes can be created and maintained by the means of specific bundles of HRM practices (MacDuffie, 1995). Therefore we link the commonly accepted issues within

literature to strategic human resource management (SHRM) of horizontal and vertical fit to ambidexterity. Thus, we discuss the role of consistent HRM systems for the specific needs of different ambidextrous learning architectures along an evolutionary path.

We contribute to literature in three ways: *First*, we investigate the role of HRM practices serving as organizational routines in order to constitute and guide different ambidextrous learning architectures. *Second*, we show how consistent HRM systems as specific bundles of HRM practices (Kepes/Delery, 2007) foster these different ambidextrous strategies. *Third*, we emphasize the changing challenges of “fit” of an HRM system (Baird/Meshoulam, 1988) when firms transit from one strategy to another.

The paper proceeds as follows: In the next section, we define the notion of organizational ambidexterity. Subsequently, we briefly review past research on the interplay between ambidexterity and SHRM. Then, we present three different ambidextrous learning designs along an evolutionary pathway and we argue the role of SHRM for each design. Finally, we discuss our findings and conclude that organizations need to deliberately align HRM practices to their required learning architectures.

Ambidexterity & HRM

Ambidexterity – a multifaceted term: Although managing the interplay between stability and change has been a central topic in organization and management science for decades, still many questions remain open to answer. During the past decade, ambidexterity has emerged as the central research stream to explain this interplay (e.g. Lavie et al. 2010). Put simply, by using the lens of organizational learning ambidexterity refers to the simultaneous pursuit of the two antagonistic learning modes of exploration and exploitation (Gupta et al., 2006; March, 1991). Although the appropriate relation between exploratory and exploitative learning may differ among organizations with varying objectives, research shows that pursuing both learning modes is necessary to ensure long-term organizational success and

survival (Leonard-Barton, 1992; Levinthal & March, 1993). Empirical research on the performance implications of ambidexterity shows that it is closely related to various output indicators such as sales growth (He & Wong, 2004) overall financial performance (Gibson & Birkinshaw, 2004) or innovation (Hill & Birkinshaw 2007; Katila & Ahuja, 2002). However, owing to a vague conceptualization and diverse operationalizations of ambidexterity, results are difficult to compare (Sidu, Commandeur, & Volberda, 2007; Simsek, 2009). As a consequence, scholars including existing reviews on ambidexterity (Lavie et al., 2010; Raisch & Birkinshaw, 2008; Simsek et al., 2009) and introduction articles to special issues examining ambidexterity (Gupta, Smith, & Shalley, 2006; Raisch, Birkinshaw, Probst, & Tushman, 2009) criticize the lack of consistent and transparent theory.

Defining ambidexterity: In order to deduce our arguments on HRM systems for different ambidextrous learning architectures on a conclusive basis, we first provide a comprehensive definition of organizational ambidexterity (cf. Güttel et al., 2011). However, attempts to define ambidexterity are facing literature on ambidexterity in completely different contexts, explaining distinctive phenomena and using various interpretations, units of analyses and diverse operationalizations (Simsek et al. 2009; Gibson & Birkinshaw, 2008; Lavie et al., 2010).

We argue that the variety of current definitions is mainly due to the fact that literature on ambidexterity lumps together factors in an undifferentiated way that have to be kept apart. As a first step of clarifying ambidexterity, we propose to refer to the firm as the central unit of analysis based on March's (1991) seminal work. In a second step, we distinguish three levels, on which organizations need to find an idiosyncratic balance: Resource deployment (input), learning processes and learning results. We argue that organizations have to find a balance on all three levels first, by allocating their resources (e.g., HR, time, attention, financial etc.) (Nohria & Gulati, 1997) towards exploration and exploitation (input level) second, by facilitating exploratory and exploitative learning processes (process level) (March, 1991) and

third, by striving for learning results (outcome level) such as increasing efficiency or innovativeness (Benner & Tushman, 2002, 2003; Tushman & O'Reilly, 1996) in order to gain and sustain competitive advantage. Furthermore firms need to ensure coherence between these levels by reducing causal ambiguity, which encompasses the nexus from resource deployment that enable exploratory and exploitative learning and, finally, learning results (see figure 1).

Insert Figure 1 about here

Consequently, we define ambidexterity as the simultaneous pursuit of exploration and exploitation above a certain highly firm-specific limit, aiming at achieving coherence between learning efforts and learning results, such as high levels of innovation and efficiency. Therefore ambidexterity can be viewed as a organizational strategy for long-term success or the organizations competence to operationalize this strategy respectively. By doing so, we demarcate ambidexterity in contrast to other strategies that aim at enhancing efficiency or innovation as discussed in the literature: Monodextrous firms specialize either in exploitative learning striving for efficiency, or in exploratory learning striving for innovation, both running the risk of either having great competence in one field but being unable to react to changing environments (success trap) or invest in exploration without reaping the benefits of exploitation (failure trap) (Levinthal & March, 1993). Second, firms which employ sequential approaches – exploratory and exploitative activities one after the other – are discussed under the header of “punctuated equilibrium”, “temporal cycling”, or “temporal specializations/separation” (Lavie et. al., 2010; Raisch, 2008; Siggelkow & Levinthal, 2003; Simsek et al., 2009). Organizations, following such strategies are not ambidextrous, as they

do not display both learning modes simultaneously. Finally, there are firms striving for high levels of efficiency and innovation but they are not able to reach this aim. These firms run the risk to get “stuck-in-the-middle” (Porter, 1980) and will not be successful in the long run (see figure 2).

Insert Figure 2 about here

Ambidexterity and HRM: Hitherto, research on ambidexterity has especially focused on the antecedents and on the outcomes of ambidexterity (Raisch & Birkinshaw, 2008). Research on the effects (outcomes) of ambidexterity has empirically examined the “ambidexterity-hypothesis” (ambidexterity leads to success and high-performance) and showed predominantly that ambidexterity and various performance parameters are positively related (e.g. He & Wong, 2004). Research on the antecedents of ambidexterity has especially differentiated between structural and contextual antecedents in order to deploy ambidextrous learning architectures (Raisch & Birkinshaw, 2008). In a nutshell structural ambidexterity is achieved by setting up separate units solely dedicated to exploration and exploitation (O’Reilly & Tushman, 1996, Smith & Tushman, 2005). By contrast contextual ambidexterity is achieved by creating a context, where groups or individual employees autonomously decide how much time and effort they invest in exploratory and in exploitative activities (Gibson & Birkinshaw, 2004; Güttel & Konlechner, 2009). Concerning the role of HRM to facilitate and guide organizational learning processes within ambidextrous designs research has remained remarkably rare, although recently scholars started to investigate the role of a firm’s HRM system in building and maintaining organisational ambidexterity (Kang & Snell, 2009; Swart & Kinnie, 2010).

HRM systems as a part of an organizational design provide a rule-based framework, that serves as a strong means to guide, govern and control the employee's operative and learning behavior to accomplish a firm's goals (e.g. Kang & Snell, 2009; Wright & Snell, 1998). However, a review of the ambidexterity literature shows that except from Kang & Snell (2009), Swart & Kinnie (2010), and partly Ketkar & Set (2009), there are only poor, or rather implicit references concerning strategic HRM issues or considering common HRM practices (e.g. selection and staff induction, personnel development, remuneration and appraisal or job-design; Schuler & Jackson, 1987; Tichy, Fombrun & Devanna 1982) in ambidexterity research. For instance, Gibson and Birkinshaw (2004) discuss the role of a high performance context characterized by a balance of stretch, discipline, support and trust and thus provide a few impacts for HRM systems and practices. Jansen, George, Van den Bosch and Volberda (2008) and Beckman (2006), for example, further investigate the role of the Top Management Team (TMT) and thereby give us some ideas of composing and rewarding the TMT in a structurally ambidextrous design. And yet others like Adler, Goldoftas and Levine (1999) empirically illustrate how efficiency and flexibility are ensured by the means of different work designs. And Benner and Tushman (2003) as well as Kaplan and Henderson (2005) mention the governance mechanism of different incentive and reward systems in order to foster either exploration or exploitation. To sum up, these papers very selectively provide some hits to HRM issues, however there is not link to literature on SHRM.

Differently, based upon the concept of organizational learning (Crossan, Lane, & White, 1999), Kang and Snell (2009) were the first scholars who explicitly investigated the role of HRM systems in generating ambidexterity. They provide a conceptual paper building upon the concept of a firm's different knowledge stocks (individual, social and organizational capital) regarding to contextual ambidexterity. By doing so, they identify two HRM architectures ("refined interpolation" and "disciplined extrapolation") which can be described as cross-combinations out of common HRM practices to support either explorative or

exploitative learning with regard to different intellectual capital categories in order to support the specific contextual ambidextrous strategy. Whereas, Kang and Snell design HRM practices for contextual circumstances there are no insight for other ambidextrous learning architectures. Swart and Kinnie's (2010) empirical research (qualitative) concerning the knowledge processes in professional service firms is based on Kang and Snell (2009). They provide a "Learning Orientations Matrix", which generates four different learning orientations and shows various examples of HRM practices (e.g. recruitment strategies, specific development measures, staff coaching and mentoring programs) for each. Although, these examples give important insights how particular professional service firms set up their HRM systems by emphasizing the link between specific tasks and HRM practices in order to achieve the specific purposes in terms of knowledge assets, Swart and Kinnie do not deduce a comprehensive strategic HRM framework beyond their scope. As mentioned Ketkar and Set (2009, 2010) provide two quantitative studies investigating the effects of HR-flexibility (Wright & Snell, 1998) on firm-level HR outcomes. Their findings from the Indian service and manufacturing sector demonstrate the vital role of HRM systems to generate firm performance. To the notion of ambidexterity Ketkar and Set refer by stressing a set of "ambidextrous HR practices" described as "flexibility inducing HR practices" (2009: 1013) which combine elements of high performance and high commitment orientated HRM systems in order to align flexible to dynamic strategic purposes. However, a clearer linkage of the constitution of HRM systems and ambidextrous learning architectures is missing.

To conclude, concerning the pivotal role of HRM ambidexterity research hitherto shows scattered hints on HRM issues and two rich papers with regard to contextual designs, but a comprehensive demonstration linking SHRM to different ambidextrous architectures is still missing.

SHRM and HRM Systems: SHRM can be defined as „the pattern of planned human resource deployments and activities intended to enable an organization to achieve its goals.“ (Wright &

McMahan, 1992: 298). HRM systems as the sum of a firm's HRM practices (e.g. selection, appraisal, training) provide a rule-based framework that serves as a means to govern the employees' operative and learning behavior. Following a resource-based perspective, the firm-specific combination of complementary and interdependent HR practices in a certain SHRM system is of peculiar interest in deploying sustained competitive advantages (Barney & Wright, 1998; Colbert 2004; Lado & Wilson, 1994; Snell, Youndt, & Wright, 1996). Empirical studies in HRM (Arthur, 1994; Becker & Huselid, 1998; Delery & Doty, 1996; Huselid, 1995; MacDuffie, 1995) emphasize that firm-specific bundles of coherent HR practices and not individual "best-practices" (e.g. Pfeffer 1998) lead to a higher firm performance (Boxall & Purcell 2000). Consistent with resource-based thinking, most of all researchers referring to the configurational perspective (Arthur, 1994; Delery, 1998; Delery & Doty, 1996; Kepes & Delery, 2007; MacDuffie, 1995) focus on issues of *internal fit* (*horizontal fit*) and the coherent configuration of HR practice in SHRM systems. They suggest that consistent and internally aligned HRM practices ("powerful connections") and not single best practices are the source of competitive advantage, thus create synergies that positively affect organizational performance (e.g. Boxall/Purcell 2000, Kepes & Delery, 2007). Organizations therefore seek to attain an internal consistent HRM system (Kepes & Delery, 2007) should try to avoid "deadly combinations" (Delery, 1998) of their HR policies and practices that could work in opposite directions: e. g. the implementation of a teamwork organization and an existing appraisal system that only rewards individual performances (Boxall & Purcell, 2000). In order to constitute internal consistent HRM systems the need to support different learning processes (Crosson & Berdow, 2003), different tasks (Swart & Kinnie 2010) as well as the need to facilitate and coordinate various groups of employees (Lepka & Snell, 1999) are complex challenges. Furthermore SHRM literature stresses in interplay to the internal fit of an HRM system, the alignment of an HRM system to a firm's strategic purposes embedded in their corporate strategy (e.g. Miles & Snow, 1984; Schuler &

Jackson 1987) referred to as *external fit (vertical fit)* (Baird & Meshoulam, 1988). Therefore, according to the concept of fit, firms need to configure a specific HRM system that is a) aligned with the corporate strategy and b) an internal consistent bundle of HRM practice in order to gain its full potential of HRM for organizational performance.

By building upon this concept of fit in the following we discuss consistent HRM systems for different ambidextrous learning architectures, since scholars call for more research on the critical role of HRM in creating and sustaining different kinds of ambidexterity (Kang & Snell, 2009). In this regard, especially strategic aspects of HRM in ambidextrous organizations are of crucial interest. Therefore this paper sheds light on these questions and shows how HRM systems govern and support different ambidextrous designs – combining the learning modes of exploration and exploitation – with diverse strategic purposes.

HRM systems for different ambidextrous learning designs

In the previous section we argued that the HRM system as an element of an organizational design provides a rule-based framework that serves as a strong means to guide, govern and control the employees' operative and learning behavior to accomplish a firm's goals (e.g. Kang & Snell, 2008; Wright & Snell, 1998). In order to realize the full potential to contribute to organizational performance, literature on SHRM claims that the HRM system has to fit with the firm's corporate strategy (external or vertical fit) and also that all employed HRM practices have to fit together (internal or horizontal fit) (Baird & Meshoulam, 1988). However, literature on ambidexterity hitherto neglected the importance of HRM concerning the microfoundations of diverse ambidextrous architectures. To shed light on this question first we illustrates three ambidextrous learning architectures (unity, duality and hybridity) and their transitions as organizations evolve over time. Building upon those three idealistic ambidextrous designs we discuss a) how consistent HRM systems contribute to different ambidextrous strategies and b) how different HRM practices as the elements of an HRM

system can be arranged in order to lead to internal and external fit. Thereby, we focus on basic HRM practices such as staff selection, staff induction, training & development, appraisal and rewards as well as the questions of job design to describe our conception of ambidextrous HRM systems.

By providing a process-model of ambidexterity Güttel et al. (2011) distinguish three main ambidextrous architectures of how firms can manage the interplay between opposing learning modes: (1) *Unity* and the use of contextual ambidexterity, (2) *duality* and the necessity to organize exploration and exploitation in a diversified way (structural ambidexterity), and (3) *hybridity* where diverse forms of ambidexterity co-exist within one firm and learning results of exploration and exploitation are mutually related (hybrid ambidexterity) (see figure 3).

Insert Figure 3 about here

By employing different ambidextrous designs, we are able to investigate in more specific questions regarding the microfoundations of ambidexterity, in particular the role of HRM systems in governing ambidexterity. Subsequently, we discuss the function of HRM with regard to our three proposed ambidextrous designs.

Contextual ambidexterity as “working in two worlds”

The unity phase: Within the unity phase the organizational structure is usually simple and centralized (Miller & Friesen, 1984), little planning and coordination is necessary (Quinn & Cameron, 1983), and communication is informal and unstructured (Van de Ven, Hudson & Schroeder, 1984). As a consequence, the firm is usually characterized by flexibility and market proximity. Due to direct communication employees know about each other’s activities

and both exploration and exploitation are demonstrated simultaneously across the whole organization. Thereby the trade-off between exploration and exploitation is based on the judgment of individual employees (Gibson & Birkinshaw, 2004). As they are constantly “alternating” between the two learning modes, employees are capable of understanding the “logic of both worlds”, but lack the time to specialize in either exploration or exploitation (Güttel & Konlechner, 2009). Hence, organizations have a good idea of what they are learning as learning processes and learning results are tightly coupled (Güttel et al., 2011). Within such a structure, employees contribute to exploratory and exploitative activities, enjoy at least some levels of autonomous decision-making, and are guided by a shared vision, and a set of simple rules. Spatial proximity of the employees facilitates knowledge sharing, mutual learning, and the interconnectedness of exploration and exploitation. Small professional start-up service firms, such as consultancies may serve as an example (Swart & Kinnie, 2010).

HRM in the unity phase: To support the strategic purposes of contextually ambidextrous organizations, HRM contributes in various ways to create and sustain such a context. First, HRM practices need to deal with the trade-off of constantly enhancing individual efforts on both learning orientations in order to ensure high levels of both, exploration and exploitation, and to avoid one-sided specializations. This is especially necessary, because too much specialization in one learning mode would ultimately lead to monodexterity. Second, HRM practices frame the environment, where employees closely work together driven by shared values and goals. In order to gain the full potential of implemented HRM practices the management’s challenge is to fit the HRM system to the firm’s specific needs regarding the strategy as well as to align the different HRM practices to a consistent bundle supporting the same goals and avoiding “deadly combinations” (Delery, 1998). Regarding to common HRM practices, we can deduce a conception for HRM in contextually ambidextrous organizations: Employees have to operate in both learning modes, and they need autonomy in the way they are working. Therefore *selection* criteria are experience in simultaneous operating in both

learning modes, or recruiting “high potentials” with high a capacity of performing in one learning mode and the potential to improve in the other (Swart & Kinnie, 2010; Ketkar & Set 2009). Furthermore, the cultural match of the potential employee with the organizations norms and values has high priority in order to facilitate a broad identification with the organization’s commitment based working environment. During the *induction* of new employees the use of intense job rotation especially in the early phases would facilitates a comprehensive understanding of the whole organization. More specifically, by participating in such programs, employees learn the way in which exploratory and exploitative learning occurs and which norms and values are the guidelines for individual and group behavior. In this regard, individual and informal induction practices (Van Maanen & Schein, 1976, Antonacopoulou & Güttel, 2010) seem to be adequate for the unity phase. To be able to operate in both learning modes, individuals need to continuously self-improve in both skills and they also need to develop broad levels of background knowledge (i.e. knowledge about the strategic positioning of the firm). Reserved times (e.g. short term sabbaticals) to spent time and invest focused in either specialization or keeping contact to peer groups (e.g. academic community, professional groups) from both “worlds” are important avenues for *development* in this respect. Moreover, in order to govern one’s personal resource allocation (e.g. time, attention) a transparent *reward system* that sets incentives for performing in exploration as well as in exploitation supports a double-sided orientation (Foss & Laursen, 2005) and stabilizes an ambidextrous strategy. Management by Objectives (MbO) systems or functional equivalents with measurable and rewarded objectives are examples (Güttel & Konlechner, 2009). Finally, extensive job rotation and project-based working structures are a central cornerstone to stabilize an ambidextrous mindset (Swart & Kinnie, 2010, Collins & Smith, 2006).

To conclude, a HRM system to support the strategic purposes of contextually ambidextrous designs has to foster the constant understanding, operating, integrating and development of

both learning orientations. This “balancing” of sometimes contradicting demands induces a unique (ambidextrous) HRM system that is not simply aligned with “high performance works systems” (e.g. Pfeffer, 1998) innovation-enhancing HRM practices (Shipton, West, Dawson, Birdi & Patterson, 2006). The proposed HRM practices fulfill this demand with regard to the external fit (specialization at a certain degree in both learning modes while able to quickly integrate diverse knowledge and react to markets) as well as the constituency as one system considering the internal fit (a powerful bundle of HRM practices supporting the same dual strategy and based on common values) (see figure 4).

Insert Figure 4 about here

Structural ambidexterity as splitting the HRM system

The duality phase: Structurally ambidextrous designs separate exploratory (e.g., R&D department) and exploitative (e.g., production and marketing) structures, where each unit implements its own learning context, sub-culture and routines in order to ensure high specialization in both learning modes (Güttel et al., 2011). Different units are even protected against each other to achieve high specialization and to lay a fertile ground for cutting edge innovations (Benner & Tushman, 2003; O’Connor & DeMartino, 2006). Exploratory units are usually small and decentralized, exploitative units tend to be larger and more centralized (Gupta et al., 2006). Pharmaceutical companies may serve as examples of structurally ambidextrous firms with separated business units to research on radically new serums for serving future markets and to efficiently supply the current market with developed products. However, the downsides of high specialization are exclusive attention to the success of existing business and sealed off innovative units from the core business. The employees’

scope of action is limited to either exploration or exploitation, resulting in a lack of understanding between exploratory and exploitative units and low levels of absorptive capacity (Cohen & Levinthal, 1990). This hampers the organizational ability to transfer and to integrate knowledge between different units, which is necessary to convert ideas and innovations into merchantable products and services. To connect both learning modes, scholars emphasize the integrative function of the TMT (e.g., Jansen, Tempelaar, van den Bosch, & Volberda, 2009; Smith & Tushman, 2005). It acts as knowledge broker between exploratory and exploitative units and applies additional knowledge management measures. However, even the TMT integration seems to be difficult, as intra-firm knowledge transfer has proven to be a difficult task (Szulanski, 1996).

HRM in the duality phase: Structurally ambidextrous designs pose a great challenge to the HRM of these organizations concerning the fit with the corporate strategy and the internal fit of the HRM system. Following the idea of separate units with different mind-sets, setting up an internally differentiated HRM systems (Lepak & Snell, 1999, 2007; Swart & Kinnie, 2010) is necessary to enable high specialization in both, exploratory and exploitative domains. Concerning HRM practices supporting specialization on either exploration or exploitation, we build upon concepts of coherent HRM-system bundles for instance „high-commitment” for explorative units (striving for innovation) and „internal labour market” for exploitative units (striving for efficiency) (Baron & Kreps, 1999). Furthermore, HRM practices such as knowledge-management projects or cross-functional teams (Jansen et al., 2009) may serve as functional equivalent to integration via the TMT (e.g. Smith & Tushman, 2005). However, a shared vision or common core values (e.g. Benner & Thusman, 2003) are essential, integrative elements to bridge both learning units. Thus, structurally ambidextrous firms need to organize a HRM system a) consisting of two consistent bundles of HRM practices for explorative units and exploitative units to foster dual specialization b) that supports knowledge transfer and integration between these units in alignment with the ambidextrous

strategy and c) that considers internal consistency at a certain level. Concerning common HRM practices we subsequently provide some ideas apart from the basic HRM concepts proposed for exploration (high commitment) and exploitation (internal labor market): *Selection* practices for exploratory and exploitative units need to vary from each other in order to recruit specialized staff for either learning orientation. However, for both domains, potential employees require at a minimum level experienced in the opposite learning mode. Experience, even when it was short or years ago, supports the understanding of the mindset employed in other units and thus facilitates knowledge transfer across different units. To foster mutual understanding without mitigating specialization, *induction* programs could intersect at some points (e.g. welcome day, come together dinner) to lay the ground for further interaction across both learning orientations. Also concerning *HR training and development* activities in fields apart from functional competencies such as trainings for general management or social competences could serve as bridges to foster minimum of mutual understanding and at least the establishment of common core values. Cross-functional project teams (O'Connor & DeMartino 2006; Adler et al. 1999), and temporary job rotation between both domains are further practices regarding to questions of *job design* to support mutual understanding and learning.

To conclude, internally differentiated HRM systems for structurally separated units ensure high specialization in both learning modes. Thus, a firm's HRM system, supporting dual high specialization can be stated as the essential function of HRM within those designs. Moreover the ambidextrous strategy postulates not only the simultaneous operation in both learning modes but the interaction between them in order to serve the market with new innovations. HRM responses by facilitating pointed knowledge transfer and integration. Internal consistency of internally differentiated HRM systems is ensured at the level of a common HRM policy (Kepes & Delery, 2007) e.g. the firm rewards willingness to cooperate or team spirit. Moreover investigations in a strong joint organizations culture and transparent

overarching strategic goals are means to overcome dividing tensions regarding the structural separation (see figure 5).

Insert Figure 5 about here

Hybrid ambidexterity as common shared HRM philosophy

The hybridity phase: Stability, predictability, and efficiency gained in the duality phase, lead to success in mature markets in the short term, but may directly thwart the ability to enter emerging markets or to seize new opportunities. Consequently, to regain the entrepreneurial spirit of the unity phase and to seize new business opportunities the organization has to renew its exploratory capacities, without losing functional specialization's advantages. To meet the challenge of running a highly specialized business in the mature market and of competing in an entrepreneurial manner in the new market, organizations combine exploratory, exploitative and contextually ambidextrous units simultaneously (Harreld, O'Reilly & Tushman, 2007; O'Reilly, et al., 2009, Raisch 2008). Güttel et al. (2011) label this form of ambidexterity, combining contextual and structural ambidexterity within one firm in various ways, as hybrid ambidexterity. A close look into ambidexterity research reveals that most scholars deal with hybrid aspects of ambidexterity (structurally and/or contextually ambidextrous business-units of large organizations) without distinguishing between the different levels of analysis. In order to differentiate between ambidexterity (1) on the firm level and (2) the business unit level we introduce the notion of "first" and "second" order ambidexterity.

Innovation and growth in many large organizations, is largely dependent on how they manage to continuously feed exploration. Organizations can meet this challenge by setting up new ventures (e.g., Deutsche Bank, Nestlé; Raisch, 2008) and/or through the acquisitions of small

– and often contextually ambidextrous – firms (e.g., Cisco Systems, Bombardier; Eisenhardt & Brown, 1999), the continuous exploration at a high level by creating or acquiring specialized exploratory units (Ahuja & Katila, 2001) or by intensifying the search for new knowledge in strategic alliances (Lavie & Rosenkopf, 2006; Tiwana, 2008). One important challenge for the TMT is to establish an overarching vision and core values that permit employees from all business units to forge a common identity (O'Reilly & Tushman, 2008; Jansen et al. 2008). This common identity provides the glue within the hybrid ambidextrous organization and allows collaboration between the units.

HRM in the hybridity phase: A consistent HRM system for hybrid ambidextrous firms therefore consists of “first-order” HRM systems of contextual and exploratory as well as exploitative business units. These diverse bundles of HRM practices supporting the unit's strategy are bind together at the corporate level by a common HRM philosophy as the minimum common ground to provide the internal fit in a highly diverse organization (Kepes & Delery 2007). We further argue, to have in mind strategic differences between a newly founded organization (“1st order contextual ambidexterity”) and a contextually ambidextrous business unit set up within a large (hybrid ambidextrous) organization (“2nd order contextual ambidexterity”) and its influence on constituting a firms HRM system.

HRM and organizational growth

While organizations grow, e.g. transit from the unity to the duality phase in order to reduce complexity and achieve more specialized learning, they need to adjust their ambidextrous learning architectures in a way to sustain the balance between the central learning processes of exploration and exploitation and to connect learning processes to results. Thereby the HRM system as a consistent bundle of HRM practices serves a means to ensure the coherence between learning endeavors and learning results. When organization transits from one phase into another they are faced with multiple critical decision points (Güttel et al., 2011).

However, when a strategy of growth is the desired option, organizations need to ensure that their HRM systems are configured first, to support the change process and second, to ensure a consistent fit aligned to the strategic needs of the new phase. Therefore, organizations need to manage their HRM systems as a means to govern organizational change as HRM practices guide the employees' operative and learning behavior. Thus, the challenge is to preserve the fit between the HRM system and the strategic purposes of change. Simultaneously, to gain the full potential of HRM by entering the new phase, organizations have to ensure horizontal fit between the separate HRM practices as well as to align the HRM practices to their overall strategy in order to sustain horizontal fit. Consequently, the management of a firm's HRM system is of vital interest by designing organizations for stability and change.

Discussion & Conclusion

Research on ambidexterity investigates how some organizations successfully manage to simultaneously combine the two learning modes of exploration and exploitation. However, hitherto research on ambidexterity neglected the pivotal role of HRM systems to facilitate and control organizational learning processes. We aim to enhance ambidexterity research by discussing different ambidextrous designs along an evolutionary pathway as firms grow over time (Güttel et al., 2011) and show how specific HRM systems foster the strategic purposes of these designs. Hence we show how to operationalize an ambidextrous strategy by the means of a firm's HRM. We analyze conceptually how firms need to configure and re-configure their HRM systems in order to achieve vertical fit between HRM system and firm strategy and horizontal fit within various HRM practices (e.g., Baird & Meshoulam, 1988; Wright & Snell 1998) in order to achieve ambidexterity. Therefore, our research contributes to contemporary HRM and ambidexterity research as well as to management practice by providing a framework to further understand, how to manage the interplay of exploration and exploitation on organizational level. In particular, we investigate how firms are able to apply different

HRM systems to facilitate various ambidextrous designs in order to balance the relationship between stability and change. We therefore contribute to literature in various ways:

First, building upon the Güttel et al. (2011) framework of organizational ambidexterity, we show how a firm's HRM system serves to constitute and guide the generation and maintenance of various ambidextrous learning architectures. Therefore, we extend current research by providing a basic definition of ambidexterity and a division of three specific ambidextrous learning architectures with different strategic purposes. We show that there are different requirements to the elements of organizational design in order to enable an ambidextrous strategy by focusing on the role of HRM systems of particular interest. Furthermore, we consider the role of the TMT to connect learning endeavors and learning results (Smith & Tushman, 2005), as it holds a central position in managing the organization's (human) resources. While in the unity phase, the central task of the TMT is "doing" (i.e. the founders or founding team members are themselves engaged in the operative business), the focus alternates to "transferring" (knowledge between exploratory and exploitative units) in the duality phase, and "orchestrating" (knowledge between various divisions) in the hybridity phase.

Second, we show how consistent HRM systems as specific bundles of HRM practices (Kepes & Delery, 2007; MacDuffie, 1995) support different ambidextrous learning architectures and enhance research on the link between ambidexterity and HRM that hitherto focused mainly on static views of contextual ambidexterity (Kang & Snell, 2009; Swart & Kinnie, 2010). Moreover, our framework integrates single references concerning diverse HRM issues within the ambidexterity literature (e.g., Adler et al. 1999; Benner & Tushman, 2003; Gibson & Birkinshaw 2004) into consistent HRM architectures for different ambidextrous designs as Swart and Kinnie claim to "consider the various types of ambidexterity in more detail" (2010: 77). Thereby, we employ the concept of vertical and horizontal fit to organize consistent

HRM systems for different ambidextrous firms and especially highlight the importance of creating “powerful connections” to support their strategies.

Third, we provide further insights to the missing “link between ambidextrous learning and the strategy of the firm” (Kang & Snell, 2009: 86) as organizations evolve over time. Swart and Kinnie (2010: 76) point out to align the “people strategy” to the corporate strategy and to dedicate attention to a fit of HRM practices. However, they do not describe how firms are able to achieve vertical and horizontal fit in different ambidextrous designs. We discuss the strategic aspect of managing human resources, while organizations change their ambidextrous learning designs and how the configuration of HRM systems constitutes a facilitating or a constraining force in establishing ambidexterity and in supporting the transition from one ambidextrous learning design into another one. Therefore we address how ambidextrous firms strategically manage the “fit” of their HRM systems and are able to influence exploratory and exploitative learning processes and connect them to results (e.g. efficiency and innovation).

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Figure 1: Three Levels of Balance (c.f. Güttel et al. 2011)

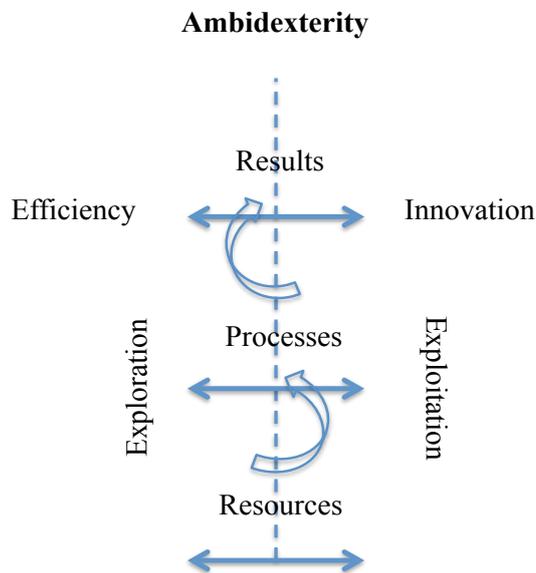


Figure 2: Ambidexterity vs. Monodexterity and Temporal Cycling (Güttel et al. 2011)

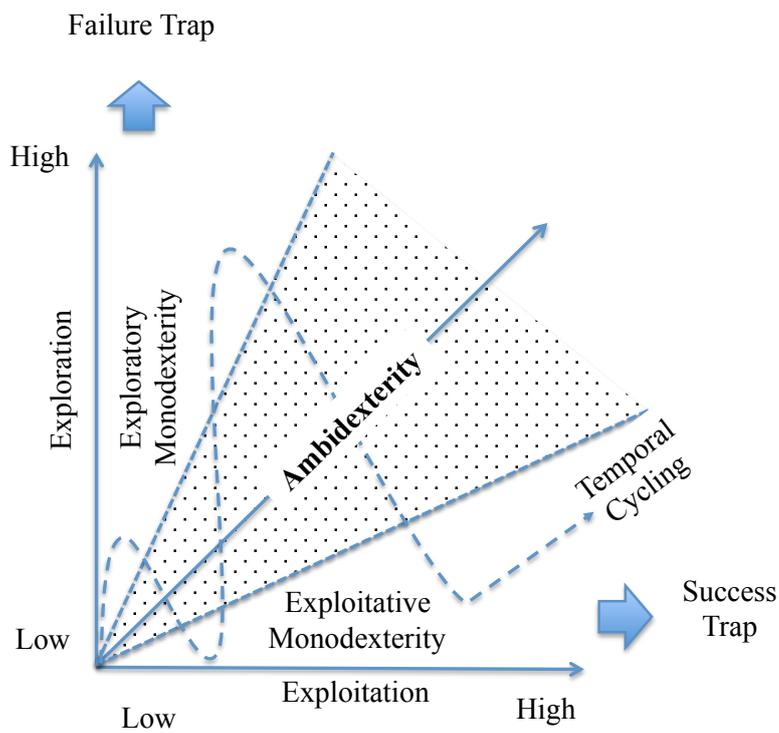


Figure 3: Ambidextrous Learning Designs

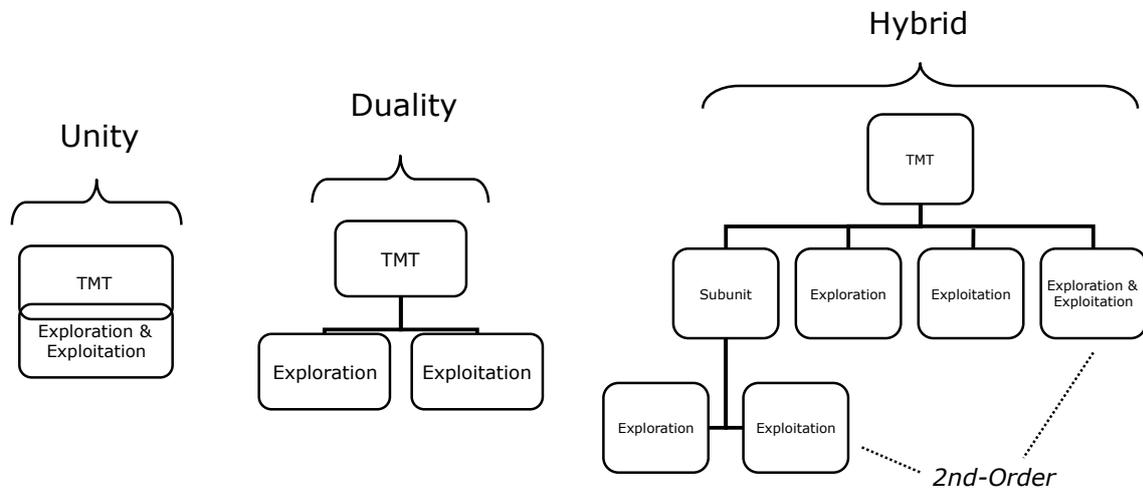


Figure 4: HRM and Contextual Ambidexterity

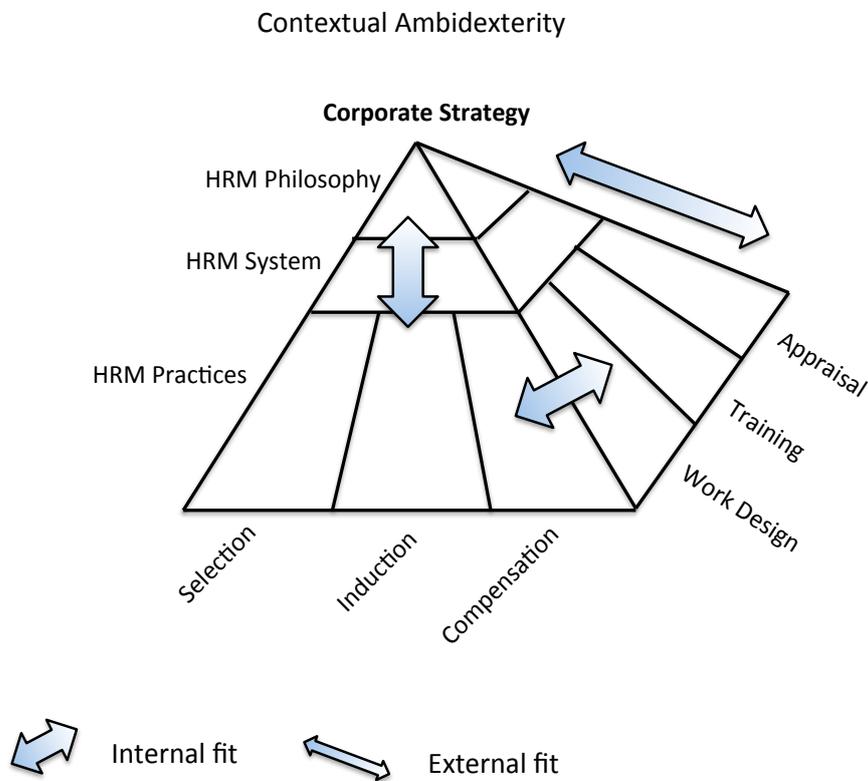


Figure 3: HRM and Structural Ambidexterity

