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PARADOXES, DUALITIES AND DILEMMAS: UNDERSTANDING SUSTAINABILITY IN HRM

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ABSTRACT

The paper contributes to the emerging literature linking sustainability as a concept to problems researched in HRM literature. Sustainability is often equated with social responsibility. However, emphasizing mainly moral or ethical values neglects that sustainability can also be economically rational. This conceptual paper discusses how the notion of sustainability has developed and emerged in HRM literature. A typology of sustainability concepts in HRM is presented to advance theorizing in the field of Sustainable HRM. The concepts of paradox, duality, and dilemma are reviewed to contribute to understanding the emergence of sustainability in HRM. It is argued in this paper that sustainability can be applied as a concept to cope with the tensions of short- vs. long-term HRM and to make sense of paradoxes, dualities, and dilemmas. Furthermore, it is emphasized that the dualities cannot be reconciled when sustainability is interpreted in a way that leads to ignorance of one of the values or logics. Implications for further research and modest suggestions for managerial practice are derived.

Keywords: Sustainable HRM, paradox, duality, dilemma

INTRODUCTION: THE IMPORTANCE OF SUSTAINABLE HRM

How are, and how should employees be managed to sustain their competence, health, and commitment? How can HRM simultaneously influence and balance the tension between today's employment of HR and the future flow with skilled and motivated people? Who is responsible for these activities? These are three of the key questions in the emerging field of Sustainable HRM. In business practice, sustainability was originally used as a concept to advance thinking on environmental topics. Recently, the notion emerges linked to HRM practice – also in European international organizations. For example, topics related to the social dimension of sustainability emerge increasingly in the publications of the World Business Council for Sustainable Development (WBCSD), a global network for sustainable development in the business world, encompassing members from about 180 international companies, in more than 30 countries and 20 industrial sectors with approx. 12.1 million employees (WBCSD, 2006). Key topics are recruiting and retaining top talent, developing critical competencies, motivation, incentives for exceptional performance, employability, lifelong learning, demographic trends, aging workforce, maintaining employee's

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health, quality of life, work-life-balance, safety, justice, ethics, and corporate social responsibility (e.g. WBCSD, 2002, 2005, 2006). Surveying HR executives in eight European countries on their understanding of sustainability and HRM Zaugg, Blum, and Thom (2001) found that there is an interest for sustainability in HRM practice but that is not used systematically as a concept (Thom & Zaugg, 2004).

Although sustainability has been subject of thought and reflection in the field of management research for a long time (e.g. Gladwin, Kennelly & Krause, 1995) and although extensive literature has been published on Corporate Social Responsibility (CSR), HRM researchers have largely ignored and neglected exploring the concept of sustainability for HRM (e.g. Thom & Zaugg, 2004; Boudreau & Ramstadt, 2005). Prior literature on sustainability and HR(M) focuses on Sustainable Work Systems (SWS) (e.g. Docherty, Forslin & Shani, 2002a; Kira, 2003), sustainable learning and change (Boud, Cressey & Docherty, 2006), Sustainable HRM (Müller-Christ & Remer, 1999; Zaugg, 2006), Sustainable HR strategy (Mariappanadar, 2003), and on the relevance of sustainability for talentship and for the notion of strategic success (Boudreau & Ramstad, 2005). However, important gaps remain from the perspective of HRM as well as from sustainability research allowing further conceptual and empirical exploration. The following questions are addressed in the paper to start closing this gap: *What is the importance and meaning of sustainability as a concept for HRM? How can the concepts of paradox, duality, and dilemma help understanding the emergence of sustainability in HRM practice and bring forward its theoretical conceptualization?*

This conceptual paper and attempts extending the author's existing work on this issue (e.g. Ehnert, 2006) and makes the following contributions to sustainability and HRM literature. First, the paper provides a brief review of the literature linking the concept of sustainability and HR issues, and develops a typology of sustainability concepts for HRM. Next, the literature on dualities, dilemmas, ambiguities, and paradoxes is reviewed. In the third section, the concept of paradox is used as an analytical tool to detect tensions, dualities and dilemmas in the typology of sustainability in HRM. The last section of the paper summarizes the main results and reiterates the contributions for sustainability and HRM theory. Guidelines are developed for further research and modest implications are provided for HRM practice.

UNDERSTANDING THE EMERGENCE AND MEANING OF SUSTAINABLE HRM

The historical development unfold in this section indicates that sustainability appeared as a concept in situations of crises when at least one of the following topics turned out to be of importance. Sustainability emerged when

- economic, natural, or social resources were scarce and/or
- negative externalities threatened long-term resource exploitation.

In European (international) organizations we experience today both problems: a lack of competent and committed people and/or negative externalities of HR practices and strategies on employees, HRM, and societies. For European international organizations, one possible strategy to cope with this situation seems to be the application of sustainability as a concept for HRM.

Evolution of the notion of sustainability and its diffusion into HR-related research

In general parlance, the terms sustainability and sustainable development are applied as synonyms for 'long-term', 'durable', 'sound', and 'systematic' (Leal Filho, 2000). The understanding of sustainability in practice and theory has been influenced mainly by three groups: ecologists, business strategists, and the United Nation's World Commission on Environment and Development (WCED, 1987), called the 'Brundtland Commission'.

Sustainability is said to have been coined in 1712 by the German nobleman Hans Carl von Carlowitz referring to the sustainable production of wood. The concept spread within Europe in the 18th century and influenced the US and Canadian forestry sectors in the 19th century (see table 1). In the 1970s, the term was adapted by the ecological movement concerned with the over-exploitation of natural and environmental resources (e.g. Daly, 1973; Meadows, Meadows & Randers, 1972). While ecologists focus on sustainability's ecological dimension – the protection of the natural environment – the traditional goal of business strategy scholars is economic sustainability of organizations (Dyllick & Hockerts, 2002). Business strategists apply the term in conjunction with 'sustainable competitive advantages' (e.g. Porter, 1980; Barney, 1991).

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Period	Concept	Understanding of sustainability
approx. 2000	Sustainability as a concept for HRM and HR strategy	Sustainability as an economic rationality: resource consumption and resource reproduction are balanced in the long run
		Sustainability as social responsibility, self-responsibility and sustained competitive advantage
		Sustainability as social responsibility only
1990s	Sustainability as a concept for (Strategic) Management	Economic sustainability is not sufficient for a company's sustainability
		sustained competitive advantage
1987	Sustainable development as a societal and social concept	sustainability as a moral, ethical duty (e.g. WCED, 1987)
1970s	Sustainability as an ecological concept	link between ecological problems and economic growth (e.g. Club of Rome; Limits of Growth)
18 th /19 th century	Sustainability as an economic (and ecological) concept	Not more trees must be felled than the forest produces (forestry sector in Europe, USA, Canada)

Table 1

Evolution of the notion sustainability	v and its diffusion in	nto HRM practice and	research

The Brundtland Commission added a social dimension to the ecological and economic ones, defining sustainable development as a "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987: 43). Although originally intended as emphasizing the link between the economic difficulties of developing countries and sustainable development, this definition has become one of the most often cited ones which influenced the practical emergence of further constructs and definitions of sustainability in management theory and practice (Anand & Sen, 2000; Gladwin, Kennelly & Krause, 1995).

Since it's dissemination through the Brundtland Report (WCED, 1987), the notion of sustainability has been associated primarily to ecological issues in business practice but, the focus on the social dimension of sustainability has become increasingly important. The diffusion of research and practice such as 'Corporate Social Responsibility' (CSR) or 'Corporate Sustainability', in practice and research, have contributed to the interest in sustainability linked to HR issues (see table 1). Next, the literature is reviewed which addresses this link.

Conceptualizations of sustainability in HR-related research

Today's approaches using the notion of sustainability in HRM and HR-related literature bear traces of one or more previously described origins of sustainability. Prior research linking sustainability and problems relevant for HRM can be traced in the literature on Strategic HRM, Corporate Social Responsibility, Sustainable Work Systems, and Sustainable HRM. The approaches identified in this literature differ with regard to the origin of their understanding of sustainability, their objectives, focus, and theoretical foundations (Ehnert, 2006). With regard to understanding sustainability, the central difference lies in the conceptualization of sustainability as a 'social responsibility' or as an 'economic rationality'.

Sustainable Work Systems literature

The literature on Sustainable Work Systems (SWS)², promotes an understanding of sustainability largely based on the Brundtland Commission's definition (e.g. Docherty, Forslin, Shani & Kira, 2002b; Moldaschl, 2005) and thus conceptualizes sustainability as a social responsibility. As sustainability is a very complex concept, the scholars do not try to offer just one truth or "one unified message, but rather, different impressions on sustainability" (Docherty et al., 2002b: 12). For example, Docherty and colleagues (2002b) propose a stakeholder perspective:

"Sustainability - as we understand it - encompasses three levels: the individual, the organizational and the societal. Sustainability at one level cannot be built on the exploitation of the others. These levels are intimately related to the organization's key stakeholders: personnel, customers, owners and society. [...] A prerequisite for sustainability at the system level

² Work systems are the "roles, responsibilities and relationships for getting work done" (Beer, 2002: xiv in Docherty et al., 2002a). SWS are proposed from its proponents instead of 'Intensive Work Systems'.

(individual, organizational or societal) is to achieve a balance between stakeholders' needs and goals at different levels simultaneously" (p. 12).

An increasingly short-termed profit orientation with strategies like downsizing, outsourcing, or contingent work is hold incompatible with social and long-term economic objectives (Docherty et al., 2002a). A further critical view is pursued by Moldaschl (2005) who understands his sustainability perspective as consciously subjective, and value-laden: "The term sustainability does not stand for ecology, [...] but for a general resource perspective" (p. 5). Overall, the understanding of sustainability from proponents of SWS follows the assumption that the responsibility for negative side effects of their actions on their stakeholders and on society, for HR exploitation, and development are located in companies (e.g. Docherty et al. 2002a; Moldaschl 2005).

Examples for these negative side effects are work-related stress symptoms, work-dependent psychosomatic reactions, burnout, self-exploitation tendencies, increased pressure of time and work pace, increased pressure to perform, eroding trust in employment relations, and blurring boundaries between work and private life (Brödner, 2002; Docherty, Forslin, Shani & Kira, 2002b; Kira, 2003). The scholars of SWS assume that these phenomena appear more often than ever among highly skilled, self-determined, highly participating, and autonomously acting employees because these employees face contradictory and ambiguous demands, experience increased work-related stress, and because not all of them are able to cope with these tensions (e.g. Brödner, 2002). The goal of this stream of literature is to improve understanding of the mechanisms and processes leading to HR exploitation or development. Recent publications focus on 'sustainable learning', reflective learning, and handling of intangible resources (e.g. social capital) in organizations (Boud, Cressey & Docherty, 2006; Moldaschl, 2005; Shani & Docherty, 2003). While the SWS literature concentrates on detrimental effects of work on individuals, the emerging literature on Sustainable HRM tries to take a broader management perspective.

Sustainable HRM literature

At least two distinct concepts have appeared on Sustainable HRM: While the first one proposes an integrative HRM concept for reconciling economic competitiveness, self-responsibility, and social responsibility the latter assumes that sustainability is an economically rational concept and thus ignores identifying a locus of responsibility. Sustainable HRM in the first concept is defined by Thom and Zaugg (2004) as "those long-term oriented conceptual approaches and activities aimed at a socially responsible and economically appropriate recruitment and selection, development, deployment, and downsizing of employees." (p. 217; translated from German by the author). Sustainable HRM is interpreted as a cross-functional task. The authors propose Sustainable HRM particularly for organizational change situations as these often make too great demands on the people involved. Thom and Schüpbach-Brönnimann (2003) suggest that Sustainable HRM could help

sustaining employee dignity in the case of staff reduction and warranting their employment on the job market.

Theoretical foundations of this approach are derived from the sustainability literature (e.g. WCED, 1987), from SWS literature (e.g. Kira, 2002), and from SHRM literature (see also Zaugg, 2006). The researchers assume that companies, employees, and society are mutually in charge for sustainable activities. Responsibility is extended to employees' responsibility for themselves and for their careers. Human resources are interpreted as 'subjects', as equal partners, and as self-responsible actors. Moreover, it is assumed, that employees' individual objectives include improved employability, increased desire to participate in decision-making processes, quality of life, and balancing roles within and outside of work (work-life-balance) (Thom & Zaugg, 2004). In sum, the approach conceptualizes sustainability as a mutual benefit for all stakeholders and as a contribution to long-term economic sustainability. The authors of the next concept agree with the latter assumption but seek to find an economically rational explanation for sustainability in organizations and criticize social responsibility as overemphasized in the literature.

In this functional, instrumental and system-based concept, Sustainable HRM is defined from a Sustainable Management perspective as "what companies themselves have to do in their environments to have durable access to skilled human resources (Sustainable HRM)" (Müller-Christ & Remer, 1999: 76). The proponent's intention is not to remind actors of their responsibilities or moral obligations for employees or society. Instead, the central assumption is that it is economically rational to act in a sustainable way if resources are scarce and that a sustainability perspective could lead to a more realistic theory of the firm (e.g. Hülsmann, 2003; Müller-Christ, 2001). The conceptual objective of this approach encompasses exploring a causal explanation for mutual exchange relationships between organizations and their environments, and developing a general theoretical approach for handling scarce resources (Müller-Christ, 2001). Organizational environments are not regarded as constraints but as 'sources for resources' ('Ressourcenquellen') which companies need for their long-term existence (Müller-Christ & Remer, 1999). Hence, to exploit these resources on a long-term basis, the sources for resources have to be sustained. According to this understanding, a company acts in a sustainable and economically rational way if its resource reproduction divided by resource consumption equals one (see tables 1 and 2). The authors derive this definition of sustainability from old European forestry laws stating that wood consumption and reproduction should be balanced if the objective is to sustain a forest. The idea is also a general rule in accounting for balancing a company's financial capital (Müller-Christ & Remer, 1999).³

 $^{^{3}}$ This analogy between sustainability and accountancy principles had been observed elsewhere as Anand and Sen (2000) point out: "This principle also has much in common with the ideal concept of income that accountants seek to determine: the greatest amount that can be consumed in the current period without reducing prospects for consumption in the future" (Repetto, 1985: 10).

Müller-Christ (2001) assumes that it is the interest of organizations to reduce negative side effects of practices and strategies on the 'sources for resources' (e.g. on labour markets, education systems, or on families). Furthermore, organizations should ensure the functioning of those sources for resources which provide human resources with the skills and motivation required. In other words, according to this approach it is economically rational for companies to invest in the viability of their 'sources for resources' ('Ressourcenquellen') if the functioning of these is endangered. Companies do this, for example, when investing in Corporate Universities or in work-to-school programmes although it is uncertain that they will profit from their investment.

Sustainability in Strategic HRM literature

In Strategic HRM, the understanding of sustainability has been tightly related to that of economic competitiveness and 'sustained competitive advantages' from business strategy scholars for a long time. Firm resources are sources of sustained competitive advantage if they are valuable, rare, imperfectly imitable, and difficult to substitute (Barney, 1991). Human capital has been identified as a very important resource category for building a sustained competitive advantage (Barney, 1991; Schuler & Jackson, 2005), and human resource literature has picked up and extended resource-based theory development (e.g. Wright, McMahan & McWilliams, 1994). Barney (1991) points out that his definition of sustained competitive advantage is not oriented towards a long-lasting calendar time, but at stability of the competitive advantage over time. Accordingly, the term sustainable or sustainability is not necessarily interpreted as a synonym for 'long-term' or 'durable' in the Strategic Management literature.

Recently, some scholars in the field of SHRM have emphasized a social responsibility oriented understanding of sustainability (e.g. Paauwe, 2004; Schuler & Jackson, 2005). For example, Schuler and Jackson (2005) state that "success requires meeting the present demands of multiple stakeholders while also anticipating their future needs" (p. 24). In a similar vein, Boudreau and Ramstad (2005) understand sustainability as a new paradigm for HRM and define it as "achieving success today without compromising the needs of the future" (p. 129). For them, sustainability sheds new light on the understanding of organizational success going beyond the traditional focus of financial results, and the authors see practical application for the paradigm in HRM fields such as talent pools or sustainable employment relationships. Likewise, an article from Mariappandar (2003) focuses on the issue of 'Sustainable Human Resource Strategy' which "can be defined as the management of human resources to meet the optimal needs of the company and community of the present without compromising the ability to meet the needs of the future" (p. 910). In his paper, the author explores the side effects ('externalities') of retrenchment and downsizing on organizations, individuals, and communities in Australia. With reference to Sun and colleagues (2001), he proposes that the "economic reality of the companies and economic welfare of human society are the two sides of a coin and proper balance of the two is important" (Mariappanadar, 2003: 907).

Overall, more scholars seem to see a value of sustainability for a more complex understanding of strategic success. In the literature reviewed, the explanation for a sustainability perspective ranges from social responsibility to economic rationality, depending on the research goals, theoretical foundation, research paradigm, and on the main source of the sustainability definition (Ehnert, 2006). However, in previous literature it is also pointed out that sustainability and efficiency do not follow the same logic – even if sustainability is not regarded as a social responsibility (Müller-Christ, 2001). For further exploration of this puzzle and its meaning for the problem of short-term HR deployment and long-term availability of HR a typology of sustainability concepts is developed.

A typology of sustainability concepts

The academic debate on social responsibility and economic rationality is a long and sometimes emotionally laden one which should not be repeated here (for reviews see e.g. Whetten, Rands & Godfrey, 2002). Moreover, it is the purpose of this section to point out that the distinction between sustainability as a social responsibility and as an economic rationality is not sufficient; instead, an alternative typology is developed. For this purpose, I take two important assumptions from the literature: First, economic rationality and social responsibility are values underlying decision-making in business life (see also Paauwe, 2004). These values can be conflicting but don't necessarily have to. Second, efficiency and sustainability are interpreted as two distinguishable logics (Müller-Christ, 2001; Hülsmann, 2003). Either of them can be economically rational or socially responsible; this is the assumption I add. Juxtaposing the two dimensions ('value' and 'logic') results in the typology shown in table 3.

Logic	Efficiency	Sustainability
Value		
Economic	Efficiency = Output/Input = max!	Resource consumption/Resource
rationality	(shareholder value reasoning)	reproduction = 1
	ightarrow Maximise efficient HR	(forestry rule reasoning)
	deployment!	\rightarrow Reduce negative externalities to sustain
		the functioning of the 'sources for HR' and
		to foster organizational viability!
Social	Sustainability as a means to an end	Sustainability as social responsibility
responsibility	('traditional' HRM reasoning)	(moral, ethical reasoning)
	ightarrow ethics and humanization of work	\rightarrow Ethics, humanity in its own right
	to maintain HR performance and	→ Reduce negative externalities
	commitment and to balance negative	because it is unethical/inhumane
	externalities	

Table 2:A typology of sustainability concepts

In the upper left-hand quadrant, I would categorize research that conceptualizes sustainability only from an economic rationality and with the logic of efficiency in mind (e.g. shareholder value reasoning in the strictest sense). Efficiency is defined as maximising the output-input relation of resources. For HRM practice, the implication would be to maximise the deployment or 'exploitation' of existing HR (HR more regarded as objects than as subjects/people) – even if this is at the expense of HR themselves.

In the lower left-hand quadrant, I would see research which still operates from the logic of efficiency and understands the major task of HRM to contribute to organizational performance. But, researchers from this stream are aware that HRM also has to be socially responsible in the sense that everything has to be done to maintain an employee's skills, commitment, and performance. This research stems e.g. from the 'humanization of work' tradition. Social responsibility in this case is interpreted a means to facilitate contribution to organizational goal achievement and performance. The underlying logic is still efficiency (or effectiveness).

The lower right-hand quadrant embraces research which sees social responsibility as an end in itself and ethics or humanity as values in its own right. Implications from this research would be that negative externalities from working life should be controlled e.g. because the HR activities are unethical. This does not follow an economic rationality and the logic of sustainability is applied in the sense of social responsibility values.

Finally, the upper right-hand quadrant focuses on research which understands – explicitly or implicitly – sustainability as an economic rationality which is based on the 'forestry rule reasoning' or the reasoning of finance that in the long run the 'consumption' and 'reproduction' of HR should be balanced (see table 3).⁴

The distinctions into four quadrants might not be so clear cut in HRM research or in practice – a problem of many typologies or categorizations. Still, this typology seems to be a helpful tool for a deeper understanding and analysis of the concept of sustainability in HRM research and practice. Yet, the typology does not explain is how these different logics and values could be fruitfully used for further theorizing or for deducing managerial implications in Sustainable HRM. To advance this thinking, research on paradox, duality and dilemma is reviewed in the next section.

PARADOX, DUALITY AND DILEMMA AS CONCEPTS TO ADVANCE THEORIZING ON SUSTAINABILITY IN HRM

Approx. 20 years ago, concepts such as paradoxes, dualities, or dilemmas have become a major concern for scholars of organization theory (e.g. Cameron & Quinn, 1988) and International HRM

⁴ [A personal note: Developing people is not quite comparable to forest reproduction. What might be comparable is the underlying logic.]

(e.g. Evans & Doz, 1989), but their broader application for theorizing in HRM remains scarce or implicit (Evans, Pucik & Barsoux, 2002). These ancient, often philosophical concepts have been introduced into organizational research as analytical tools and as a basis for finding new explanations on situations of increased change, turbulence, and competition (e.g. Cameron & Quinn, 1988). Paradox, duality, and dilemma are competing concepts identified as significant in this paper for Sustainable HRM. Although there are subtle differences between these concepts leading to different implications, the notions are sometimes used synonymously in the literature. This scholarly practice and the utility of paradox, duality, and dilemma for advancing theory on Sustainable HRM are herewith discussed critically. The purpose of this section is to outline some of the definitions and the utility of these concepts for theory development in Sustainable HRM.

Conceptualizations and applications of paradox, duality, and dilemma

Scholars in the field of organization theory, started using paradox as a metaphor or an analytical tool to explain findings from Peters and Waterman (1982) stating that on a long-term basis, those organizations were most successful which were capable of reconciling tensions (see also Van de Ven, 1983). Paradox was also introduced to challenge linear cause-and-effect thinking and assumptions on equilibrium (Quinn & Cameron, 1988) based on the – particularly in the U.S. – dominant paradigm of logical positivism. Following a symposium at the Academy of Management conference in 1985, Cameron (1986) published a journal paper on 'Effectiveness as paradox', and Quinn and Cameron (1988) edited a volume on 'Paradox and transformation'. This first collection of ideas and possibilities on what paradox is and on how to thrive on paradox in organization theory was followed by a number of publications such as 'Paradox and performance' (Denison, Hooijber & Quinn, 1995), complemented by practitioner-directed books such as 'The age of paradox' (Handy, 1994). Poole and Van de Ven (1989) described how to use paradox for theory development; a journal paper which has received considerable attention in the literature and inspired, for example, articles on organizational identity (e.g. Fiol, 2002), on organizational crises and change (e.g. Raisch, 2005), and on paradoxes in theorizing within the resource-based view (e.g. Lado, Boyd, Wright and Kroll, 2006).

Paradox is relevant for researchers to understand and make sense of various organizational phenomena (see e.g. Johnston & Selsky, 2005 or Special Issue, *Academy of Management Review* 25(4)). Against the background of new organizational forms, Child and McGrath (2001) assume that "paradox is likely to be a core theme of postmodern organizational design" (p. 1144). However, as Johnston and Selsky (2005) point out: "There is no dominant view of paradox in organization studies but instead a tension between realist and constructivist views" (p. 183; see also Lado et al., 2006). At this point it is good to note, that there is also no singular understanding in those fields of research where the concept of paradox originated from such as philosophy where different types and meanings of paradoxes are distinguished (see e.g. Erickson & Fossa, 1998). For an overview on key definitions of paradox in organizational theory and related concepts see table 2.

A key element in the definitions on paradox is that two opposing logics are involved operating simultaneously and thus create tensions. In this paper, a broader definition of paradox is adopted to accommodate uses of the notion and related concepts in organization and HRM literature (see also Poole & Van de Ven, 1989 cited in table 3; Lado et al., 2006). Some scholars use paradox and duality (e.g. Eisenhardt, 2000), some duality and dilemma (e.g. Evans, Pucik & Barsoux, 2002) in an interchangeable way while others point out subtle differences among these concepts (e.g. Johnston & Selsky, 2005). For this paper, I distinguish paradox from duality as suggested e.g. by Evans and Doz (1991) understanding duality as something that 'underlies' paradoxes, and I also distinguish 'dilemma' from the previous two terms and understand it as proposed by Cameron (1986; see table 2).

Table 3	
Key definitions of paradoxes and related conce	epts

Author(s)	Definition
Erickson & Fossa (1998)	In the etymological sense of the word, a paradox comes from Greek <i>para</i> ("against") and <i>doxa</i> ("the taken/received opinion") and according to the Oxford English Dictionary is "a statement or tenet contrary to received opinion or expectation; often with the implication that it is marvellous or incredible" (p. 147).
Cameron (1986)	"A paradox is an idea involving two opposing thoughts or propositions which, however, contradictory, are equally necessary to convey a more imposing, illuminating, life-related or provocative insight into truths than either factor can muster in its own right. What the mind seemingly cannot think it must think; what reason is reluctant to express it must express' (Slaatte, 1968: 4). Paradox, then, involves contradictory, mutually exclusive elements that are present and operate equally at the same time. Paradoxes differ in nature from other similar concepts such as dilemma []. [] in that no choice need be made between two or more contradictions. Both contradictions in a paradox are accepted and present. Both operate simultaneously." (p. 545).
Cameron (1986)	"A dilemma is and either-or situation where one alternative must be selected over other attractive alternatives" (p. 545).
Poole & Van de Ven (1989)	 "[Paradox] has several layers of meaning" (p. 563): (a) "In general parlance, many writers use the term loosely, as an informal umbrella for interesting and thought-provoking contradictions of all sorts. In this sense, a paradox is something which grabs our attention, a puzzle needing a solution"; (b) "In rhetorical studies <i>paradox</i> designates a trope which presents an opposition between two accepted theses"; (c) "In logic, <i>paradox</i> has a narrower, specialized meaning. A logical paradox 'consists of two contrary or even contradictory propositions to which we are led by apparently sound arguments' (van Heigenoort, 1972, p. 45). Taken singly, each proposition is incontestable, but taken together they seem to be inconsistent or incompatible" (p. 563; italics in original).
Eisenhardt (2000)	"Paradox is the simultaneous existence of two inconsistent states, such as between innovation and efficiency, collaboration and competition, or new and old. Rather than compromising [] vibrant organizations, groups, and individuals change by simultaneously holding the two states. This duality of coexisting tensions creates an edge of chaos, []. The management of this duality hinges on exploring the tension in a creative way that captures both extremes, thereby capitalizing on the inherent pluralism within the duality" (p. 703).
Johnston & Selsky (2005)	"[] a paradox is an agreement among local interpreting observers that a certain duality of actual behaviours is inconsistent" (p. 187).

While paradox seems to be the preferred concept in organization theory, Paul Evans and colleagues have advanced what they call 'duality theory' for International HRM (e.g. Evans, Doz & Laurent, 1989; Evans, 1999; Evans et al., 2002), and 'dilemma theory' is used e.g. to increase understanding of cultural diversity (e.g. Hampden-Turner & Trompenaars, 2000; see similarly Hofstede's (2001) bipolar cultural dimensions).

Generally, the application of paradox in social theories favours a pluralistic approach (see also Eisenhardt, 2000). Poole and Van de Ven (1989) point out that paradoxes in social theories are "not strictly logical paradoxes. [Instead,] tensions and oppositions between incompatible positions must be considered" (p. 565). As a consequence, coping with social paradoxes requires adapted methods different from those coping with logical paradoxes (Poole & Van de Ven, 1989). Different methods to cope with or reconcile paradoxes, dualities, and dilemmas have been proposed by Poole and Van de Ven (1989), by Evans and Doz (1991), by Evans (1991), and by Hampden-Turner (1990). The main belief from this stream of research is that "opposites are not viewed as 'either/or' choices, the appropriateness of which depends on a particular context (as in contingency theory), but dualities that must be reconciled or dynamically balanced" (Evans, 1999: 328). It is not possible to reconcile opposing forces forever but the tensions they create have to be accepted and coped with (Evans, 1999). Accordingly, the first step towards dealing with a duality between two poles is to identify, define, and accept it (Hampden-Turner, 1990). Subsequently, both poles of a duality, both emerging pathways have to be pursued simultaneously (e.g. Müller-Stewens & Fontin, 1997). Evans (1999: 330) proposes that between two poles of a duality lies a 'zone of constructive tension' i.e. a zone where a balance between extremes is possible. The initial question of this paper was to find out how the concepts of paradox, duality, and dilemma can advance understanding of the emergence of sustainability in HRM practice and this is going to be discussed in the next section.

Paradox, duality, and dilemma theory to make sense of sustainability in HRM

Applying the ideas of paradox, duality, and dilemma theory to the previously described emergence on sustainability in HRM practice can provide a tool for completing the understanding of the typology of sustainability (see table 2).

First, sustainability as a social responsibility in HRM can be interpreted as an 'opposing pole' for 'economic rationality'. While this might not be so much surprising – viewing it through the lens of paradox and duality, the upsurge of CSR in practice and research could be interpreted as what Evans and colleagues (Evans, Doz & Laurent, 1989) call 'pendulum swings' from one pole to another. A period of economic downsizing and cost-cutting strategies is 'answered' by a period of increased stakeholder demands and care. From this perspective, it would be the task of HR executives to find the 'zone of constructive tension' between these opposites (see also Evans, 1999).

Second, efficiency and sustainability could also be regarded as two opposing poles at least if one accepts that they follow different logics. This gives also a new meaning to what Grant (1991) calls a two-dimensional strategic objective: "harmonizing the exploitation of existing resources [logic of efficiency; the author] with the development of the resources and capabilities [logic of sustainability; the author] for competitive advantage in the future is a subtle task (p. 132)." This leads to a deeper understanding of the short vs. long-term dilemma for HR executives.

Third, HR practitioners find themselves in conflicting situations between short-termed profit making (e.g. labour-cost pressure) on the one hand and long-term organizational viability on the other (e.g. Paauwe, 2004; Wright & Snell, 2005). One of the most important tasks for organizations is to balance exploitation of resources and simultaneously develop future business opportunities (e.g. March, 1991). For HR executives the challenge lies in deploying employees efficiently today, to provide them enough room for regeneration and work-life balance; simultaneously, HR have to be 'reproduced' which goes beyond the traditional understanding of HR development and encompasses a more long-term oriented perspective on sustaining access to highly skilled and motivated people. Taking the elaborations of the previous sections in this paper into account, the dilemma of HR executives with regard to sustainability is not limited to the opposing values of 'economic rationality' versus 'social responsibility'. Instead, the four-quadrant matrix derives a more pluralistic view of these tensions (a 'web of tensions') and of the concept of sustainability. Sustainability is a matter of values but can also be perceived as a decision-making logic.

Fourth, it can thus be argued that in European international organizations, sustainability is applied as a concept to cope with the tensions and to make sense of paradoxes, dualities, and dilemmas. The challenge for researchers and HR executives is to find and design a contextually and culturally appropriate balance for a Sustainable HRM.

CONCLUSIONS

Sustainability is an emerging phenomenon in HRM practice and research. This paper has attempted to make the following contributions to sustainability and HRM literature. First, it provided a short historical analysis of the emergence and different origins of understanding sustainability in HRM. Next, different research approaches were introduced linking the idea of sustainability to HR-related issues. Then, as a contribution to sustainability literature a typology was presented to understand the different notions of sustainability in HRM and their underlying values and logics. It has been pointed out that it is important to understand sustainability beyond the value-based concept. However, HRM would also fail if it does not take the importance of social responsibility into account, at least, depending on the contextual factors. In the second main section, the literature on paradox, duality, and dilemma was reviewed with the objective to make a contribution to theorizing in HRM as well as in

sustainability research by linking this body of knowledge to the previously presented typology of sustainability.

Guidelines for further conceptual research are to explore more in depth how the concepts of paradox, duality, and dilemma can contribute to extending HRM theories and models and to Sustainable HRM research. Further research should give attention to the following open questions: Do HR executives use sustainability to make sense of tensions from paradoxes, dualities etc.? If yes, how do they apply sustainability? Are there any contextual differences with regard to the application of sustainability (see typology) in HRM in Europe? If yes, what are the different concepts and how do international organizations manage this potentially global vs. local dilemma?

Implications for HR executives are difficult at this point of research as sustainability is an emerging perspective. But from this paper the following modest implications can be derived: Sustainability is important for HRM practice no matter if it is regarded as an underlying value or logic. Sustainability can help 'integrating the future into the present' (Evans, 1999), and to reconcile the dilemma between short-termed profit making and long-term availability of HR. Hence, it is important to look at existing HR practices and to figure out if the follow primarily the logic of efficiency or of sustainability. A balance is needed which can find different forms of expression in HR activities depending on contextual, cultural, or institutional factors.

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