

Muster, Viola; Schrader, Ulf

Article

Green work-life balance: A new perspective for green HRM

Zeitschrift für Personalforschung (ZfP)

Provided in Cooperation with:

Rainer Hampp Verlag

Suggested Citation: Muster, Viola; Schrader, Ulf (2011) : Green work-life balance: A new perspective for green HRM, Zeitschrift für Personalforschung (ZfP), ISSN 1862-0000, Rainer Hampp Verlag, Mering, Vol. 25, Iss. 2, pp. 140-156,
https://doi.org/10.1688/1862-0000_ZfP_2011_02_Muster

This Version is available at:

<https://hdl.handle.net/10419/71050>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Viola Muster, Ulf Schrader*

Green Work-Life Balance: A New Perspective for Green HRM**

This paper proposes that Green HRM can meet its full potential only by considering employees in their twofold role as producers and consumers. Employees learn different kinds of behaviour not exclusively at the workplace, but also in private life. Since reciprocal interactions between working life and private life occur, a “green work-life balance concept” is suggested to facilitate environmentally friendly behaviour in both life domains. The concept offers chances not only for the environment, but also for the company and its employees by increasing, for example, work motivation and job retention. However, challenges like employees’ reactance to allow corporate influence on private life need to be addressed.

Green Work-Life-Balance:

Eine neue Perspektive für umweltorientiertes Personalmanagement

Dieser Beitrag geht davon aus, dass umweltorientiertes Personalmanagement (Green HRM) dann besonders wirkungsvoll sein kann, wenn es die Mitarbeiter in ihrer Doppelrolle als Produzenten und Konsumenten berücksichtigt. Mitarbeiter lernen unterschiedliche Verhaltensweisen nicht nur am Arbeitsplatz, sondern auch im Privatleben. Da Wechselwirkungen zwischen Arbeitsleben und Privatleben unvermeidlich sind, kann das Konzept einer „grünen Work-Life-Balance“ umweltfreundliches Verhalten in beiden Lebensbereichen fördern. Positive Effekte für die Umwelt, für Unternehmen und Mitarbeiter sind denkbar, indem zum Beispiel Arbeitsmotivation und Mitarbeiterbindung verbessert werden. Doch auch mögliche Risiken müssen bedacht werden, wie beispielsweise die Reaktanz der Mitarbeiter gegenüber einem Eingriff des Arbeitgebers in ihr Privatleben.

Key words: Green HRM, work-life balance, consumption, employees, environment (JEL: M12, M14)

* Viola Muster is junior lecturer and research assistant at Technische Universität Berlin, Division of Economic Education and Sustainable Consumption. Address: TU Berlin, Franklinstr. 28/29, FR 0-1, 10587 Berlin, Germany. E-mail: viola.muster@tu-berlin.de

Ulf Schrader is full professor for Economic Education and Sustainable Consumption at Technische Universität Berlin. Address: TU Berlin, Franklinstr. 28/29, FR 0-1, 10587 Berlin, Germany. E-mail: Schrader@tu-berlin.de

** We are grateful to Christoph Harrach who inspired our thinking about the topic of this paper and to two anonymous reviewers who helped us to improve an earlier version.

Article received: October 8, 2010

Revised version accepted after double blind review: March 15, 2011.

1. Introduction

In recent years, a number of scholars have contributed to the understanding of Green HRM (e.g. Berrone & Gomez-Mejia, 2009; Brio, Fernandez, & Junquera, 2007; Fernandez, Junquera, & Ordiz, 2003; Govindarajulu & Daily, 2004; Jabbour & Santos, 2008; Jabbour, Santos, & Nagano, 2010; Madsen & Ulhoi, 2001; Massoud, Daily, & Bishop, 2008; Ramus, 2001, 2002; Renwick, 2008; Stringer, 2009; Wehrmeyer, 1996). Distinguished policies in the field of recruitment, performance and appraisal management, training and personnel development, employee relations and reward systems are considered powerful tools for aligning employees with a company's environmental strategy (Renwick, 2008). Therefore Green HRM can decisively contribute to successful environmental management.

Nevertheless, many companies are struggling to effectively advance employees' environmental behaviour. A discrepancy between environmental policies and actual behavioural patterns in organizational everyday life has been identified as a challenge (e.g. Antoni & Bauer, 2005; Daily, Bishop, & Govindarajulu, 2008; Fernandez, Junquera, & Ordiz, 2003; Ramus, 2001; Riechmann, 2000). It can be assumed that the full potential of Green HRM in theory and practice has not yet been realized. One conceivable deficit which could hamper the greening process is illustrated in this article: Green HR policies focus only on employees' working role.

While contemporary HRM already considers the complex array of employees' work-roles and non-work-roles by developing, for instance, work-life balance policies (e.g. Barnett & Hyde, 2001; Elloy & Smith, 2003; Kossek, 2003; Marks & MacDermid, 1996), Green HRM so far ignores employees' non-work roles.

In order to strengthen green organizational behaviour, it is important to acknowledge that environmentally relevant attitudes and behaviour are not learned exclusively at the workplace, but also in private life. People have distinctive modes of living. They practice specific consumption patterns in their everyday life, which have different effects on the environment (Reusswig, 1994; Söderholm, 2010). Therefore employees' private role as consumers is considered crucial for learning and practicing environmental attitudes and behaviour.

Since work-life research has shown that there are complex interactions between peoples' roles in working life and private life, both life spheres need to be considered as interdependent (Edwards & Rothbard, 2000; Lambert, 1990; Kanter, 1977). Thus, it is an obvious assumption that private experiences also influence peoples' environmental behaviour in working life.

In this respect, Green HR policies that only focus on peoples' role as employees and their work-related behaviour are insufficient. As Elloy and Smith illustrate, consideration of the complex array of work-roles and private roles requires "an holistic approach to HRM" (Elloy & Smith, 2003, p. 63). This perspective is also suggested for Green HRM: considering *employees as human beings* with multiple roles in different life spheres.

It is assumed that this holistic view is far more appropriate for a successful Green HRM in order to align employees with a company's environmental strategy.

To this end, this article first refers to the limitations of greening employees, which occurs since employees' environmental attitudes and behaviour are assumed to be shaped in private life too (section 2). Second, the theoretical and practical background of the proposed new approach will be pointed out by giving an overview of existing approaches that explain the linkages between working life and private life, and by outlining the work-life-balance concept (section 3). Finally, a conceptual model for green work-life-balance will be developed and the chances and risks of that approach discussed (section 4).

2. Scope and limits of greening employees

A complex interplay of individual, interactional, situational, cultural and structural factors influence employees' environmental behaviour in the company. These factors are not only considered by Green HRM but also by environmental management. Environmental management systems – such as EMAS or ISO 14001 – are holistic and complex intervention mechanisms which have the potential to address multiple factors successfully (e.g. Jackson, 1997; Hamschmidt, 1998; Steger, 2000; Woodside, Aurichio, & Yturri, 1998). These standards can be helpful for companies to systematically implement, control and improve environmental activities including Green HR activities (Daily & Huang, 2001; Steger, 2000).

It can be said that companies with environmental management systems are particularly dependent on elaborated Green HR policies (Antoni & Bauer, 2005; Daily & Huang, 2001; Wee & Quazi, 2005). They are not immune to gaps between “rhetoric and reality” (Crane, 1995). If they have high expectations concerning their environmental performance, it is especially important for them to transform aspirations and good intentions into actual everyday behaviour. Daily and Huang (2001) have emphasized decisive human resource factors according to the key categories of the ISO 14001 guideline. They argue that top management support, environmental trainings, team work, employee empowerment and reward systems are crucial for implementing successful environmental management systems. Even though these activities can be perceived as highly relevant, the range of possible green human resource interventions is much wider (Renwick, 2008).

Green human resource activities do not necessarily have to take place within the scope of environmental management systems. All companies that strive for environmental protection are well advised to pay attention to their employees. As Wehrmeyer (1996, p. 7) already stated in the mid-nineties: “If a company is to adopt an environmentally-aware approach to its activities, the employees are the key to its success or failure”.

Green HR policies focus on collective and individual capabilities to bring about green behaviour. Collective capabilities are mainly discussed in relation to cultural characteristics of the company that are considered significant in either restraining or advancing the corporate greening process. Building on the assumption that culture can be managed at all, Green HR policies are aimed at promoting an environmental corporate culture (Crane, 1995; Fernandez, Junquera, & Ordiz, 2003; Harris & Crane, 2002). Referring to Schein's much-quoted definition of corporate culture, an environmental corporate culture can be understood “[...] as a pattern of shared basic as-

sumptions [...]” (Schein, 2004, p. 17) about the environment and environmental issues. It is argued that an environmental culture is needed to socialize employees according to a company’s environmental strategy (Fernandez, Junquera, & Ordiz, 2003; Wehrmeyer & Parker, 1996). Once an environmental corporate culture is formed, individual behavioural changes are assumed to be most likely. It is suggested, for instance, to advance communication and interaction processes (e.g. feedback and exchange mechanisms) or to extend employee participation and employee involvement with regards to environmental issues (Govindarajulu & Daily, 2004; Brio, Fernandez, & Junquera, 2007). These cultural improvements are assumed to increase, for instance, employees’ motivation and their commitment to the company and its environmental ambitions (Govindarajulu & Daily, 2004).

Green HR policies also focus on individual learning and the personal environmental competences of employees, for instance, by setting up specific trainings and further education programs, and by implementing appraisal tools or reward systems (Govindarajulu & Daily, 2004; Madsen & Ulhoi, 2001; Ramus, 2001, 2002). Environmental trainings at the workplace might include, for instance, environmental law issues, instructions for new devices, or corporate codes of conduct, which help to advance employees’ environmental performance (Bird, 1996; Daily & Huang, 2001; Madsen & Ulhoi, 2001).

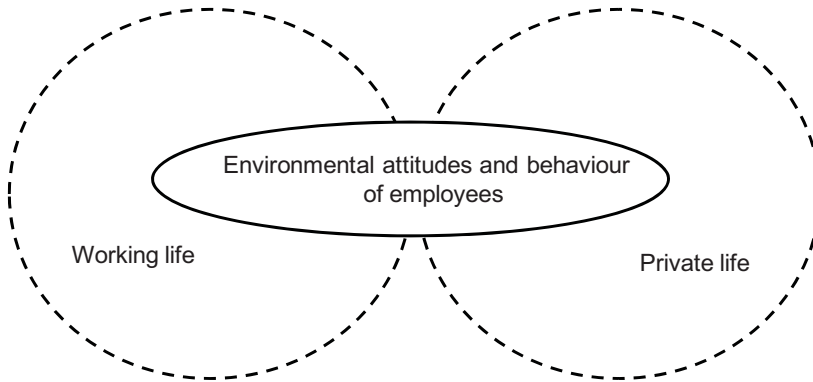
Up to now, both environmental management and Green HRM have focused exclusively on employees working role. The authors cited so far in this section and in the introduction address employees only in their role as “producers” (Muster, 2011). Their environmental attitudes and behaviour at work are mainly seen as results of corporate environmental activities. The fact that people are acting in multiple roles in different life spheres is neglected (e.g. Elloy & Smith, 2003; Marks & MacDermid, 1996; see section 3).

Employees also learn environmental attitudes and behaviour in private life. Employees’ private environmental performance is closely attached to their individual ways of living and their everyday behaviour (Reusswig, 1994; Söderholm, 2010). Environmentally relevant behaviour in everyday life is particularly expressed in consumption patterns (e.g. EEA, 2010; Stern, 1997). Consumption is understood as the process of selection, purchase, usage and disposal of products (e.g. Blackwell, Miniard, & Engel, 2006). Since it is the very nature of consumption to use resources, all consumption behaviour is likewise environmentally relevant behaviour (e.g. Hansen & Schrader, 1997). If environmentally relevant behaviour is practiced in working life and private life, it is likely that employees’ environmental attitudes and activities are generated from experiences in both life spheres (Fig. 1). While Green HRM focuses on promoting employees’ environmental behaviour in the company, employees carry on with their consumption practices in private life.

It has long been recognized that interactions between private life and working life can occur (Kanter, 1977) and many researchers have dealt with this topic in general (see section 3). Therefore there are good reasons to assume that environmental attitudes and behaviour at work and in private life also influence each other mutually. Consequently it can be argued that the impact of Green HRM on “greening employees” will always be influenced by employees’ personal environmental experiences. As a

result, Green HRM might fail in realizing its full potential if they focus merely on employees in their working role.

Figure 1: Environmental attitudes and behaviour as composition of experiences gained in working life and private life



Therefore a new perspective for Green HRM is proposed: considering *employees as human beings* who learn and develop environmental attitudes and behaviour in working life and private life. In order to successfully promote an environmentally friendly and responsible use of resources at the workplace, Green HRM needs to set up activities that support environmentally friendly behaviour at the workplace and in private life.

3. Interactions between life domains and work-life balance policies

Both the recognition of possible interactions between working life and private life, and the resulting conclusion that HRM should consider these interactions are not new in general. On the one hand, plenty of research has been conducted into the interface of working life and private life (for an overview see e.g. Edwards & Rothbard, 2000; Guest, 2002). On the other hand, the implementation and prevalence of work-life-balance policies in companies have considerably increased (Kossek & Lambert, 2005; Ryan & Kossek, 2008). However, both developments have not yet been connected to Green HRM. Thus, in the following a short overview of mechanisms explaining the possible linkages between working life and private life is given and the basic principles of work-life-balance-policies are presented. This provides the necessary foundations for the development of a conceptual model of green work-life balance.

3.1 Linkages between working life and private life

While early conceptualizations described working life and private life as “naturally” independent and segmented domains, nowadays it is assumed that people make efforts to actively separate their life domains (Piotrkowski, 1979; Rothbard, Phillips, & Dumas, 2005). Apart from these segmentation models, both life domains are usually conceptualized as reciprocally influenced by each other (Edwards & Rothbard, 2000). Established approaches that draw on these reciprocal influences include the conflict model, the enrichment model, the spillover model and the compensation model (Edwards & Rothbard, 2000; Rothbard, 2001; Guest, 2002).

The *conflict model* assumes that requirements of one life domain are difficult to reconcile with requirements of a different life domain (e.g. Guest, 2002). Resources (e.g. time, energy, attention) are considered as limited. Since these resources are unequally consumed in different life domains, inter-role conflicts occur, for instance, between the family role and the work role (Greenhaus & Beutell, 1985). These conflicts are differentiated in time-related, strain-related and behaviour-related conflicts (Greenhaus & Beutell, 1985). They can occur in two directions, for instance as work-family interferences (with negative outcomes for the family) and family-work interferences (with negative outcomes for work) (Frone, Russell, & Cooper, 1992).

The complement of the conflict model is the *enrichment model*. In contrast to the conflict model, it is not resource distributions that are the focus, but rather resource accumulation through different roles (Rothbard, 2001). It is assumed that different requirements of domains have a positive effect on each other and, in general, that multiple roles enrich peoples' lives (e.g. Barnett & Hyde, 2001). Resources and experiences that are generated in one role are supposed to improve or facilitate the role performance in the other life domain (Greenhaus & Powell, 2006).

The *spillover model* can be understood as a component of both the conflict and the enrichment model. It can be distinguished between positive and negative spillovers, meaning that transferred effects either enrich or constrain the other domain. The total amount of available resources, their accumulation and distribution are not considered here. Instead, specific transfers between the domains are considered (Edwards & Rothbard, 2000). On the one hand, spillovers can change the object of reference (e.g. work satisfaction evolves as satisfaction in relationships), and on the other hand "complete spillovers" (e.g. strengthened self-confidence at work evolves at strengthened self-confidence at home) can occur. Moreover, spillovers are differentiated between spillovers of emotions (moods), attitudes (or values), skills and behaviour (Lambert, 1990; Edwards & Rothbard, 2000).

The *compensation model* refers to experiences within one domain that cause contradictory or opposing behaviour in the other life domain (Lambert, 1990; Zedeck, 1992). People can make compensation efforts when experiences in one domain are dissatisfying. On the one hand, that can result in lower involvement (e.g. time, attention, perceived importance) in the dissatisfying domain and higher involvement in the satisfying domain (Edwards & Rothbard, 2000; Lambert, 1990). On the other hand, dissatisfaction in one domain can be compensated by pursuing rewards (additional satisfying experiences) in the other domain.

As these presented mechanisms are characterized by their descriptive qualities to enlighten possible causes and consequences of the work-life-interplay (Guest, 2002), they conceptualize employees as passive beings and do not explain how they can influence the interactions. This explanation is offered by *border theory* (Clark, 2000). This theory looks at people and their individual scope of action to negotiate demands in different life domains. People are perceived as active managers of their life domains and they are described as "border-crossers" that manage daily transitions from one domain to another (Clark, 2000). These borders can be spatial, temporal or mental. Employees will decide for themselves how much segmentation or integration of both life domains they need. They actively decide whether to use domain-specific resources

or experiences from a different domain. Nevertheless, their freedom of choice and action, but also their chances to negotiate different demands, are very much shaped by a company's infrastructure, its policies, and employees' personal resources (e.g. time, information, money, etc) (Rothbard, Phillips, & Dumas, 2005). Other domain members and border keepers are also considered important, since, for instance, communicating with superiors about family demands can help to improve their understanding of employees' problems.

Work-life research has concentrated very much on negative interaction effects between working life and private life (Rothbard, 2001). However, positive effects can also be assumed. Depending on peoples' personal competences and the specific conditions of their life domains (e.g. human resource policies), employees might benefit or suffer from work-life interactions.

3.2 Work-life-balance policies

Meanwhile, it is common practice in HRM to consider employees' work-life interface and to support them in managing both demands of working life and private life (e.g. Ryan & Kossek, 2008). Work-life balance policies are supposed to create win-win-situations for employees and the company. Employees' mental and physical wellbeing is supposed to be improved. Companies themselves expect to increase attraction, productivity and the retention of employees (Ehnert, 2009; Konrad & Mangel, 2000). Nevertheless, there are both positive and negative findings concerning the effectiveness of work-life balance policies for both the company and employees (Brough et al., 2006; Brough, O'Driscoll, & Kalliath, 2005; Rothbard, Phillips, & Dumas, 2005).

Work-life balance policies are meanwhile perceived as gender-neutral assistance for all private demands with regards to leisure, education and family activities (Ryan & Kossek, 2008). However, employees' demands as mothers and fathers are offered special attention and work-life balance policies often focus on work-family balance (e.g. Kossek, 2003; Fleetwood, 2007). Work-life balance policies are dominated by time-based instruments (like flexible work schedules and part time arrangements) (Thompson & Bunderson, 2001), since the finiteness of time and its unequal distribution is seen to be the starting point of many inter-role conflicts. Apart from time-based policies, other services are discussed, which can be information-based (like parental counselling), service-based (like corporate nurseries) or finance-based (like family allowances) (Thompson, Beauvais, & Allen, 2006; Kaiser et al., 2010).

Work-life balance policies are not supposed to equalize peoples' use of resources in both life domains, since employees might have individual perceptions of "balances" and personal wellbeing. Likewise, work-life balance policies are not designed to cut off or change specific demands and requirements of life domains. These policies are supposed to facilitate the reconciliation of working life and private life (e.g. Ryan & Kossek, 2008). However, up to now these policies mostly neglect large parts of private life, including consumption activities and connected environmental issues.

4. Considering employees private life in Green HRM

A brief overview of possible linkages between working life and private life offers a number of reasons to consider employees' private life in Green HRM. Work-life bal-

ance policies offer important starting points for how to do so. After framing possible interactions of environmental behaviour in working life and private life, a conceptual model for “green work-life balance” is presented. Lastly, chances and risks of that approach are discussed.

4.1 Interactions of environmental behaviour at work and in private life

Regarding the presented linkages between working life and private life, the following assumptions can be made.

First, the enrichment model and the positive spillover model show that possible interactions between working life and private life can bring about *positive effects*. It can be assumed that learning and practicing environmentally friendly behaviour in one domain can stimulate or strengthen similar activities in the other domain. Positive spillovers from working life to private life have already been demonstrated. Berger and Kanetkar (1995) have shown, for instance, that employees’ participation in successful waste management programs can have positive effects on their perception of environmental issues in private life and their individual effectiveness of dealing with these issues. Rashid, Wahid and Saad (2006) have documented that employees’ participation in environmental management systems can spill over and influence environmentally responsible attitudes and behaviour in employees’ private life. Research on positive life-to-work effects with regards to environmental behaviour is still scarce (as an exception see Schultz & Seebacher, 2010).

Second, the conflict model and the negative spillover model highlight that *negative effects* between working life and private life can occur. Behaviour with problematic effects on the environment in one domain can bring about or strengthen similar behaviour in the other domain. Life-to-work interferences might occur when employees routinely practice non-environmentally friendly behaviour at home, for instance wasting water and energy. Work-to-life interferences might occur, for instance, when a company and its environmental management fails in setting up successful environmental activities or in providing an infrastructure for environmentally friendly behaviour. Research on negative effects between environmental behaviour at work and in private life is scarce (e.g. Berger and Kanetkar have only shown that participation in successful waste management programs brings about positive effects; nothing is said about participation in failing programs).

Third, the compensation model outlines that (non-)environmentally friendly activities in one domain can bring about the very *opposite behaviour* in the other domain. Employees that are obliged to behave in an environmentally friendly way at the workplace, for instance, could tend to neglect environmental concerns in private life. In contrast, employees who – although they would like to – do not have the chance to act in an environmentally friendly way at the workplace (e.g. the cafeteria only provides plastic dishes and fast food), could be motivated to behave in a more environmentally friendly manner at home (e.g. cooking fresh and organic food). Here again, research on compensation effects between working life and private life with regards to environmental behaviour (from life-to-work and work-to-life) is scarce.

Fourth, border theory shows that employees need to be considered as active managers of their life domains, whose scope of action is influenced by their employer,

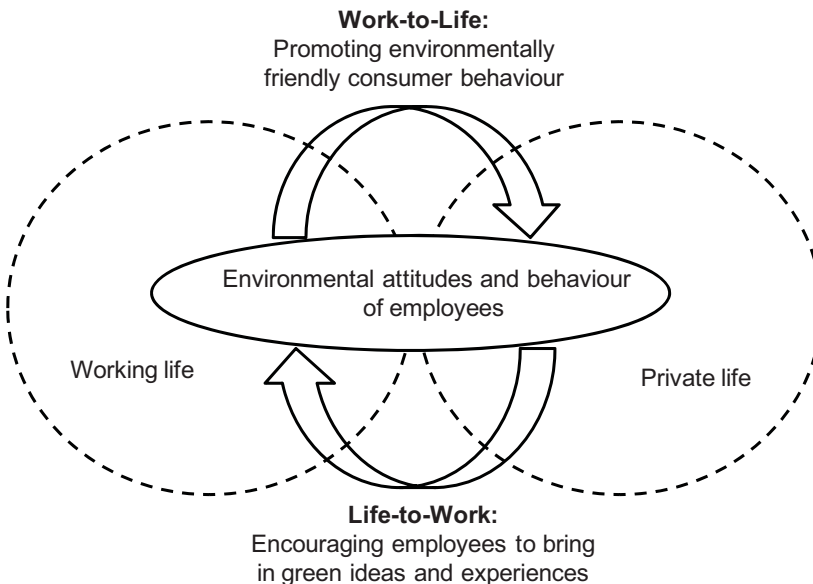
other domain members and their personal resources. It can be assumed that employees' scope of action for environmentally friendly behaviour at work and in private life is also shaped by the company, domain members and employees' personal resources. Moreover, border theory illustrates that other domain members, such as colleagues and superiors, play an important role in facilitating or constraining employees' environmental performance in both life domains. It can be assumed that employees exchange about environmental issues at home and at work influence their environmental performance.

Green HRM is in charge to deal with these interaction effects and employees' chances to manage their life domains. On the one hand, positive interaction effects need to be facilitated. On the other hand, negative interaction effects need to be prevented. Additionally, employees' subjective chances for environmentally friendly behaviour at work and in private life need to be considered. It is argued in the following that the green work-life balance concept is designed to meet these challenges.

4.2 *Green work-life-balance*

We understand green work-life balance as the reconciliation of working life and private life with regards to environmental values, attitudes and behaviour. It comprises mutual enforcement and harmonization of environmentally friendly orientations in private life and working life. We assume that balancing environmentally friendly behaviour in both life domains reduces negative interaction effects, since non-environmentally friendly behaviour will be downgraded. Moreover, a balance can bring about positive interaction effects, since different environmentally friendly experiences can enrich each other. Green work-life balance policies focus on employees' twofold role as consumers and producers, because employees learn and practice environmentally relevant behaviour in these two roles in particular (Muster, 2011).

Figure 2: Two directions of achieving a green work-life-balance



Consequently, green work-life balance policies aim at decreasing imbalances in environmentally friendly behaviour by promoting positive influences both from work-to-life and from life-to-work. On the one hand, a company can promote environmentally friendly consumer behaviour in employees' private life, which we call work-to-life interventions. On the other hand, companies can encourage employees to use environmentally relevant ideas and experiences they have developed in their private life within their working life (life-to-work interventions) (see fig. 2). In both respects, interventions are supposed to be voluntary offers for employees in order to enlarge their scope of environmentally friendly behaviour.

Work-to-life interventions focus on employees' environmental behaviour in private life and support them in consuming in an environmentally friendly fashion. Like traditional work-life balance instruments, these interventions can be differentiated in information-based, service-based, finance-based and time-based instruments (Thompson, Beauvais, & Allen, 2006; Kaiser et al., 2010) (see tab. 1).

Information-based instruments provide employees with relevant information about environmental issues and give recommendations for environmentally friendly living. Flyers and brochures can be provided and information boards or displays installed. The Internet and intranets can be used to arrange communication and information areas, such as blogs, wikis and forums, where employees can share their environmental experiences or where they can find environmental information on everyday issues. Newsletters can regularly be sent with important information. Additionally it is possible to arrange events and lectures on environmental issues. Environmental or consumer organizations can be invited to present their work and to provide information.

Service-based instruments focus on practical assistance and easy access to environmentally friendly consumption experiences. Concierge services can be offered that help to organize environmentally friendly living. While conventional concierge services organize, for instance, shopping, housekeeping, gardening, dog walking and events (Kossek, 2003), green concierge services can help to arrange these activities in an environmentally friendly way. It is possible to arrange centralized shopping for organic and fair trade products, e.g. vegetable boxes, eggs, coffee or textiles. Canteens can actively offer appetising organic and vegetarian dishes and provide monthly cookery courses for cooking at home. Since employees' mobility behaviour is particularly environmentally relevant, rental services for bikes and a car-sharing system (including the company's motor pool) could be arranged.

Table 1: Examples of green work-life balance instruments

Information-based	Service-based	Finance-based
<ul style="list-style-type: none"> - Flyers and brochures - Information boards and displays - Blogs, wikis, forums, newsletters - Events and lectures 	<ul style="list-style-type: none"> - Environmental concierge services - Centralized orders of green products - Green canteen and cookery courses - Rental services for bikes; car sharing 	<ul style="list-style-type: none"> - Discounts for green company offers - Discounts for green non-company offers (e.g. job tickets)

Finance-based instruments include special discounts for all services mentioned above – especially if they include products which belong to an employer's core business (e.g. organic food for a food retailer). Demand for these services might be higher if they were subsidized by the company so that their prices were below ordinary market prices. Financial incentives could also be offered for job related green offers which were not organized or owned by the employer. A widespread example for this is job tickets for public transport which cost less than ordinary tickets.

Time-based instruments and their environmental consequences have already been discussed in the context of work-life balance initiatives. It has been argued that flexible working (considering temporal and local aspects) might increase the potential scope of action for environmentally friendly living, e.g. the reduction of car use or fast food consumption (Heimerl, 2002). Nevertheless, findings have been ambivalent, since positive effects have to be put into perspective with compensation and rebound-effects (Heimerl, 2002; Hildebrandt, 1999). The reduction of working time (e.g. reduced average hours per job, reduced average hours per person, year, reduced total hours per working life, etc.) and the resulting reduction in salary are discussed as an appropriate tool to limit consumption expenditures. Work-time reduction is therefore seen as contributing to sufficiency and environmental protection (Hayden, 1997). However, a cause-effect analysis of work-time reduction and work flexibility is difficult. Work-time reduction, for instance, could also lead to an increase in the number of employees and commuting activities or to more price sensitive consumption patterns, which might be equally or more environmentally harmful. Because of their ambivalence, time-based interventions are not included in table 1.

Life-to-work interventions encourage employees to bring in and develop their environmental values, ideas and private experiences to the workplace. It can be assumed that employees with a great private interest in environmental issues have particular inside knowledge and experiences with, for instance, environmentally friendly practices and products, which can advance a company's environmental efforts. Employees' possible scope of action to live up to their environmentally friendly values at the workplace might be extendable. Established green human resource instruments can be used for these life-to-work interventions if they consider employees' private values and experiences.

Employees' involvement and participation in designing, implementing and evaluating environmental activities in the company are considered particularly crucial to integrate their private experiences (Brio, Fernandez, & Junquera, 2007; Fernandez, Junquera, & Ordiz, 2003; Ramus, 2001, 2002; Renwick, 2008). It seems possible, for instance, that implementing and advancing an idea management and incentive system regarding environmental issues is appropriate to encourage and integrate employees' private impulses (Ramus, 2001, 2002). This should include an attractive suggestion scheme with an adequate incentive system, e.g. by conducting idea competitions (Piller & Walcher, 2006). Employees beyond the R&D department could be involved in corporate innovation processes (Neyer, Bullinger, & Möslin, 2009) by addressing them as expert consumers. Their experiences could be integrated by participation in innovation workshops and expert interviews. Virtual or real "green exchange platforms" can be arranged, such as wikis, blogs, forums, workshops and events to foster employees'

exchange on personal environmental experiences. Proactive environmental behaviour and environmental initiatives originating from private life can be advanced by incentives and rewards (e.g. Daily & Huang 2001; Massoud, Daily, & Bishop, 2008; Ramus, 2001). It is imaginable that employees get specific times off to push forward their own environmental projects within the corporation or their engagement in environmental organizations (corporate volunteering) (e.g. Peterson, 2004). Recruitment can explicitly focus on proactive environmentally friendly applicants to bring in employees with outstanding personal environmental knowledge and competences (e.g. Wehrmeyer, 1996). Certainly further measures are imaginable to bring in and develop employees' personal environmental experiences and ideas.

All these possible work-to-life interventions and life-to-work interventions need to be adjusted with the companies' preconditions (e.g. financial, structural, cultural preconditions, etc.). It needs to be evaluated if possible services and activities can successfully be provided in the long run, since only long-term and reliable provisions might bring about actual behavioural changes. Important determinants that influence the successful implementation of these interventions (like stakeholder involvement and fit to the core business) need to be identified and validated (Muster 2011).

4.3 Chances and risks of green work-life-balance

The green work-life balance concept is perceived as an innovative approach for Green HRM. So far, activities in this field have been characterized by a rather limited view on people. The new holistic view provides a way of meeting the challenge of credible environmental protection by companies. The green work-life balance concept is supposed to bring about positive effects for the environment, employees and the company.

With respect to the sum of people in employment relationships, the potential impact of corporate green work-life balance policies is high. As the concept is designed to be implemented in a very company-specific way, the green work-life balance concept might be applicable in companies and industries all over the world. It must be said, however, that there might be a series of more pressing tasks to be dealt with. Complying with legal requirements and greening core business activities, for instance, are unquestionably more significant.

However, since green work-life balance policies promote environmentally friendly behaviour in working life and in private life, considerable improvements for environmental protection are possible. Employees will profit from green work-life balance policies, as these additional and voluntary offers will enlarge their possible scope of environmental action. They will find support for environmentally friendly activities in working life and in private life. Moreover they will get the chance to bring in their personal environmental priorities and values. Therefore – as shown for responsible corporate behaviour in general (Riordan, Gatewood, & Barnes, 1997; Maignan, Ferrell, & Hult, 1999) – these interventions can have positive effects on employees' motivation, their commitment and their work satisfaction. Moreover, they might feel proud of their employer (Lea & Webley, 1997).

Possible improvements of employees' motivation, commitment and satisfaction would also be advantageous for the company. These effects might help to increase

productivity, attraction and retention of workers (Riordan, Gatewood, & Barnes, 1997; Maignan, Ferrell, & Hult, 1999). Companies' credibility and the perceived seriousness of their contribution to solving environmental problems could be increased. Moreover, companies might benefit from employees' word of mouth, which is a powerful means of spreading environmentally friendly companies' message. This can lead to an improved corporate reputation (Fombrun, Gardberg, & Barnett, 2000).

The concept also holds risks for companies. Green work-life balance policies that focus on employees' private life and working life could send ambivalent messages. On the one hand, companies that also support their employees in private life might be perceived as particularly responsible. On the other hand, these companies could be suspected of exploiting employees' privacy and distracting from management's responsibility of greening core business activities. Therefore it is fundamental that companies clearly communicate the intention of green work-life balance policies. It needs to be emphasized that interventions are voluntary and additional offers provided for interested employees.

Moreover companies' engagement in private issues could also create employees' reactance (Brehm, Sensening, & Shaban, 1966). Reactance can appear, when employees perceive a threat to their behavioural freedom, for instance, when they feel forced to participate in green work-life activities. According to the compensation model of work-life interaction, this could lead to counterproductive effects in the form of less environmentally friendly behaviour in private life. Therefore, again, the voluntariness of activities needs to be communicated.

Furthermore, these interventions cause direct financial costs and require organizational efforts and working time. Companies, particularly first-movers in this field, can risk high expenditures without knowing whether expected results can be realised. Companies need to assess whether or not they are able and willing to invest these costs. Additional chances and risks are combined with the general blurring of boundaries between working life and private life (see section 2) to which the green work-life balance concept contributes. However, it is beyond the remit of this paper to evaluate these consequences. Even though the risks need to be taken into account, possible chances and benefits of green work-life balance are considered to prevail if the concept is implemented properly.

5. Conclusions and further research

The green work-life balance concept is proposed as a new perspective for Green HRM. The transfer of established theories of work-life interaction to Green HRM has shown that it can be effective to go beyond "greening employees" and to consider the whole human being with their private life and consumer behaviour. Such a concept builds on the serious recognition of environmental issues in a company's management. The greening and encouragement of employees as human beings can only be successful if environmental aspects are considered in all core business processes. Internally, green washing – green talk without substance – is even more probable to fail than externally. Since there is less information asymmetry within companies than on markets, employees will easily discover if words and actions fail to add up. Thus, the

establishment of a green work-life balance is an ambitious task which goes far beyond pure HRM activities.

The aim of this paper was to provide the general idea, the theoretical fundamentals and possible measures of a green work life balance. It is up to future research to develop a comprehensive implementation model. Such a framework needs to address processes, structures and responsibilities. It has to consider relevant success factors which can differ with regards to, for example, size, industry, positioning and location of a company. So far, our ideas are only conceptual. Future research needs to provide empirical evidence if a green work-life balance strategy is to deliver on the positive outcomes we have proposed, and check for the relevant success factors of such a strategy.

References

- Antoni, C., & Bauer, C. (2005). Umweltmanagementsysteme und betriebliches Umweltverhalten – mehr Schein als Sein? *Zeitschrift für Arbeits- und Organisationspsychologie*, 49, 57-68.
- Barnett, R. C., & Hyde, J. S. (2001). Women, Men, Work, and Family. An Expansionist Theory. *American Psychologist*, 56(10), 781-796.
- Berger, I. E., & Kanetkar, V. (1995). Increasing Environmental Sensitivity via Workplace Experiences. *Journal of Public Policy and Marketing*, 14(2), 205-215.
- Berrone, P., & Gomez-Mejia, L. (2009). Environmental Performance and Executive Compensation: An Integrated Agency-institutional Perspective. *Academy of Management Journal*, 52(1), 103-126.
- Bianchi, S., Casper, L. M., & Berkowitz King, R. (Eds.) (2003). *Work, Family, Health, and Well-being*. National Institute of Child Health and Human Development, Mahawa, New Jersey: Lawrence Erlbaum Associates.
- Bird, A. (1996). Training for Environmental Improvement. In W. Wehrmeyer, *Greening People. Human Resources and Environmental Management*. Sheffield: Greenleaf Publishing.
- Blackwell, R., Miniard, P.W., & Engel, J.F. (2006). *Consumer Behaviour*. 10th edition. Cincinnati: Thomson, South-Western.
- Brehm, J.W., Sensening, J., & Shaban, J. (1966). The Attractiveness of an Eliminated Choice Alternative. *Journal of Experimental Social Psychology*, 2, 301-313.
- Brio, J.A., Fernandez, E., & Junquera, B. (2007). Management and Employee Involvement in Achieving an Environmental Action-based Competitive Advantage: An Empirical Study. *The International Journal of HRM*, 18(4), 491-522.
- Brough, P., Holt, J., Bauld, R., Biggs, A., & Ryan, C. (2006). The Ability of Work Life Balance Policies to Influence Key Social, Organizational Issues. *Asia Pacific Journal of Human Resources*, 46(3), 261-274.
- Brough, P., O'Driscoll, M. P., & Kalliath, J. (2005). The Ability of 'Family Friendly' Organizational Resources to Predict Work-family Conflict and Job and Family Satisfaction. *Stress and Health*, 21, 223-234.
- Cascio, J., Woodside, G., & Mitchell, P. (1996). *ISO 14000 Guide: The New International Environmental Management Standards*. Columbus: McGraw-Hill Professional.
- Chao, T. G., O'Leary-Kelly, A. M., Wolf, S., Klein, H. J., & Gardner, P. D. (1994). Organizational Socialization: Its Content and Consequences. *Journal of applied Psychology*, 79(5), 730-743.
- Clark, S. C. (2000). Work, Family Border Theory: A New Theory of Work, Family Balance. *Human Relations*, 53(6), 747-770.
- Crane, A. (1995). Rhetoric and Reality in the Greening of Organizational Culture. *Greener Management International*, 12, 49-62.
- Daily, B., Bishop, J. W., & Govindarajulu, N. (2008). A Conceptual Model for Organizational Citizenship Behavior. Directed toward the Environment. *Business & Society*, 48(2), 243-256.
- Daily, B. F., & Huang, S. C. (2001). Achieving Sustainability through Attention to Human Resource Factors in Environmental Management. *International Journal of Operations and Production Management*, 21, 1539-1552.

- Edwards, J., & Rothbard, N. (2000). Mechanisms Linking Work and Family: Clarifying the Relationship between Work and Family Constructs. *Academy of Management Review*, 25(1), 178-199.
- Elloy, D. F., & Smith, C. R. (2003). Patterns of Stress, Work-family Conflict, Role Conflict, Role Ambiguity and Overload among Dual Career Couples: An Australian Study. *Cross Cultural Management*, 10(1), 55-66.
- Ehnert, I. (2009). *Sustainable HRM*. Heidelberg: Physica Verlag.
- European Environmental Agency (2010). *The European Environment. State and Outlook 2010. Consumption and the Environment*. Luxembourg: Publication Office of the European Union.
- Fernandez, E., Junquera, B., & Ordiz, M. (2003). Organizational Culture and Human Resources in the Environmental Issue: A Review of the Literature. *The International Journal of HRM*, 14(4), 634-656.
- Fleetwood, S. (2007). Why Work-life Balance now? *The International Journal of HRM*, 18(3), 387-400.
- Fombrun, C. J., Gardberg, N. A., & Barnett, M. L. (2000). Opportunity Platforms and Safety nets: Corporate Citizenship and Reputational Risk. *Business and Society Review*, 105(1), 85-106.
- Freimann, J., & Schwedes, R. (2000). EMAS Experiences in German Companies: A Survey on Empirical Studies. *Eco-management and Auditing*, 7, 99-105.
- Frone, M. R., Russell, M., & Cooper, M. L. (1992). Antecedents and Outcomes of Work-family Conflict: Testing a model of the Work-family Interface. *Journal of Applied Psychology*, 77, 65-78.
- Govindarajulu, N., & Daily, B. F. (2004). Motivating Employees for Environmental Improvement. *Industrial Management & Data Systems*, 104(4), 364-372.
- Greenhaus, J. H., & Beuttell, N. J. (1985). Sources of Conflict between Work and Family Roles. *Academy of Management Review*, 10, 76-88.
- Greenhaus, J. H., & Powell, G. (2006). When Work and Family are Allies: A Theory of Work and Family Enrichment. *Academy of Management Review*, 31(1), 72-92.
- Guest, D. E. (2002). Perspectives on the Study of Work-life Balance. *Social Science Information*, 41(2), 255-279.
- Hamschmidt, J. (1998). *Auswirkungen von Umweltmanagementsystemen nach EMAS und ISO 14 001 in Unternehmen – eine Bestandsaufnahme empirischer Studien*. IWÖ-Diskussionsbeitrag Nr. 65, St. Gallen: IWÖ.
- Hansen, U., & Schrader, U. (1997). A Modern Model of Consumption for a Sustainable Society. *Journal of Consumer Policy*, 20 (4), 443-468.
- Harris, L., & Crane, A. (2002). The Greening of Organizational Culture: Management Views on the Depth, Degree and Diffusion of Change. *Journal of Organizational Change Management*, 15(3), 214-234.
- Hayden, A. (1997). *Sharing the Work, Sparing the Planet: Reduced Work Time, Overconsumption and Ecological Sustainability*. Master thesis. Ontario, Canada: York University.
- Heimerl, A. (2002). Strukturwandel der Arbeit und nachhaltiger Konsum. In Umweltbundesamt, *Sozialwissenschaftliche Analysen zu Veränderungsmöglichkeiten nachhaltiger Konsummuster*. Berlin: Unesco-Verbindungsstelle im Umweltbundesamt.
- Hildebrandt, E. (1999). *Flexible Arbeit und nachhaltige Lebensführung*. Berlin: Wissenschaftszentrum Berlin.
- Jabbour, C. J., & Santos, F. C. A. (2008). The Central Role of HRM in the Search for Sustainable Organizations. *The International Journal of HRM*, 19(12), 2133-2154.
- Jackson, S. L. (1997). *The ISO 14001 Implementation Guide: Creating an Integrated Management System*. Hoboken: John Wiley & Sons.
- Kaiser, S., Ringlstetter, M., Reindl, C. U., & Stolz, M. L. (2010). Die Wirkung von Work-Life Balance Initiativen auf das Mitarbeitercommitment: Eine empirische Untersuchung in der Unternehmensberatungsbranche. *Zeitschrift für Personalforschung*, 24(3), 231-265.
- Kanter, R. M. (1977). *Work and Family in the United States: A Critical Review and Agenda for Research and Policy*. New York: Russell Sage Foundation.
- Konrad, A., & Mangel, R. (2000). The Impact of Work-life Programs on Firm Productivity. *Strategic Management Journal*, 21, 1225-1237.
- Kossek, E. E. (2003). Workplace Policies and Practices to Support Work and Family. In S. Bianchi, L.M. Casper & R. Berkowitz King (Eds.), *Work, Family, Health, and Well-being*. National Institute of Child Health and Human Development. Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Kossek, E. E., & Lambert, S. (2005). *Work and Life Integration: Organizational, Cultural, and Individual Perspectives*. Mahawa, New Jersey: Lawrence Erlbaum Associates.

- Lambert, S. J. (1990). Processes Linking Work and Family: A Critical Review and Research Agenda. *Human Relations*, 43, 239-257.
- Lea, S. E. G., & Webley, P. (1997). Pride in Economic Psychology. *Journal of Economic Psychology*, 18(2-3), 323-340.
- Madsen, H., & Ulhøi, J. P. (2001). Greening of Human Resources: Environmental Awareness and Training Interests within the Workforce. *Industrial Management & Data Systems*, 101(2), 57-63.
- Maignan, I., Ferrell, O. C., & Hult, G. T. M. (1999). Corporate Citizenship: Cultural Antecedents and Business Benefits. *Journal of the Academy of Marketing Science*, 27(4), 455-469.
- Marks, S. R., & MacDermid, S. M. (1996). Multiple Roles and the Self: A Theory of Role Balance. *Journal of Marriage and the Family*, 58, 417-432.
- Massoud, J. A., Daily, B. F., & Bishop, J. W. (2008). Reward for Environmental Performance: Using the Scanlon Plan as Catalyst to Green Organisations. *International Journal of Environment, Workplace and Employment*, 4(1), 15-31.
- Moschis, G. P., & Churchill, G. A. (1978). Consumer Socialization: A Theoretical and Empirical Analysis. *Journal of Marketing Research*, 15, 599-609.
- Muster, V. (2011). Companies Promoting Sustainable Consumption of Employees. *Journal of Consumer Policy*, 34(1), 161-174.
- Neyer, A.-K., Bullinger, A.C., & Möslin, K.M. (2009). Integrating Inside and Outside Innovators: A Sociotechnical Systems Perspective. *R&D Management*, 39(4), 410-419.
- OECD (2002). *Towards Sustainable Household Consumption? Trends and Policies in OECD Countries*. Paris: OECD Publication.
- Peterson, D.K. (2004). Benefits of Participation in Corporate Volunteer Programs: Employees' Perceptions. *Personnel Review*, 33(6), 615-627.
- Piller, F.T., & Walcher, D. (2006). Toolkits for Idea Competitions: A Novel Method to Integrate Users in New Product Development. *R&D Management*, 36(3), 307-318.
- Piotrowski, C. S. (1979). *Work and the Family System*. New York: Free Press.
- Pitt-Catsouphes, M., Kossek, E. E., & Sweet, S. A. (Eds.) (2006). *The Work and Family Handbook. Multidisciplinary Perspectives and Approaches*. Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Ramus, C. A. (2001). Organizational Support for Employees: Encouraging Creative Ideas for Environmental Sustainability. *California Management Review*, 43(3), 85-105.
- Ramus, C. A. (2002). Encouraging Innovative Environmental Actions: What Companies and Managers Must Do. *Journal of World Business*, 37, 151-164.
- Rashid, N. R. N. A., Wahid, N. A., & Saad, N. M. (2006). *Employees Involvement in EMS, ISO 14001 and its Spillover Effects in Consumer Environmentally Responsible Behaviour*. International Conference on Environment Proceedings (ICENV 2006), 13th-15th November 2006. Penang, Malaysia.
- Renwick, D. (2008). *Green HRM: A Review, Process Model, and Research Agenda*. Discussion Paper Series. The University of Sheffield. from <http://www.shef.ac.uk/content/1/c6/08/70/89/2008-01.pdf> (last accessed 2011-03-02)
- Reusswig, F. (1994). *Lebensstile und Ökologie. Gesellschaftliche Pluralisierung und alltagsökologische Entwicklung unter besonderer Berücksichtigung des Energiebereichs*. Frankfurt a.M.: IKO.
- Riechmann, C. (2000). *Deklarierte und gelebte Ökologieorientierung in Unternehmen. Konzept, Fallstudien, Gestaltungshinweise*. München, Mering: Rainer Hampp Verlag.
- Rink, D. (2002). *Lebensstile und Nachhaltigkeit. Konzepte, Befunde und Potentiale*. Opladen: Leske + Budrich.
- Riordan, C. M., Gatewood, R. D., & Barnes, B. (1997). Corporate Image: Employee Reactions and Implications for Managing Corporate Social Performance. *Journal of Business Ethics*, 16(4), 401-412.
- Rothbard, N. (2001). Enriching or Depleting? The Dynamics of Engagement in Work and Family Roles - Statistical Data Included. *Administrative Science Quarterly*, 46, 655-684.
- Rothbard, N., Phillips, K., & Dumas, T. (2005). Managing Multiple Roles: Work-family Policies and Individuals' Desires for Segmentation. *Organization Science*, 16(3), 243-258.
- Ryan, A. M., & Kossek, E. E. (2008). Work-life Policy Implementation: Breaking down or Creating Barriers to Inclusiveness? *Human Resource Management Journal*, 47(2), 295-310.
- Schein, E. H. (2004). *Organizational Culture and Leadership*. 3rd edition, San Francisco: Jossey Bass Wiley.

- Schultz, I., & Seebacher, U. (2010). *Sustainable Behaviour at Work and in Private Life. Preconditions, Measures and Tools for Promoting a Spillover*. Conference Proceedings of the 14th European Roundtable on Sustainable Consumption and Production (ERSCP), 25 – 29 October 2010, Delft, Netherlands.
- Söderholm, P. (2010). *Environmental Policy and Household Behaviour: Sustainability and Everyday Life*. London: Earthscan.
- Steger, U. (2000). Environmental Management Systems: Empirical Evidence and further Perspectives. *European Management Journal*, 1, 23-37.
- Stern, P. C., Dietz, T., Ruttan, V. W., Socolow, R. H., & Sweeney, J. L. (1997). *Environmentally Significant Consumption*. Washington, DC: National Academy Press.
- Stringer, L. (2009). *The Green Workplace. Sustainable Strategies that Benefit Employees, the Environment, and the Bottom Line*. New York: Palgrave Macmillan.
- Thompson, C. A., Beauvais, L. L., & Allen, T. A. (2006). Work and Family from an Industrial, Organizational Psychology Perspective. In M. Pitt-Catsouphes, E.E. Kossek, S.A. Sweet (Eds.), *The Work and Family Handbook. Multi-disciplinary Perspectives and Approaches* (pp. 283-307). Mahwah, New Jersey: Lawrence Erlbaum Associates, 283-307.
- Thompson, J. A., & Bunderson, J. S. (2001). Work-nonwork Conflict and the Phenomenology of Time. Beyond the Balance Metaphor. *Work and occupation*, 28(1), 17-39.
- Wee, Y. S., & Quazi, H. A. (2005). Development and Validation of Critical Factors of Environmental Management. *Industrial Management & Data Systems*, 105(1), 96-114.
- Wehrmeyer, W. (1996). *Greening People. Human Resources and Environmental Management*. Sheffield: Greenleaf Publishing.
- Wehrmeyer, W., & Parker, K. T. (1996). Identification and Relevance of Environmental Corporate Cultures as Part of a Coherent Environmental Policy. In W. Wehrmeyer, *Greening People. Human Resources and Environmental Management*. Sheffield: Greenleaf Publishing.
- Woodside, G., Aurricchio, P., & Yturri, J. (1998). *ISO 14001*. New York: McGraw-Hill.
- Zedeck, S. (Ed.) (1992). *Work, Family and Organizations*. San Francisco: Jossey-Bass Publishers.