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Job engagement and work outcomes in a cognitively demanding context: The case of expatriate academics

Abstract

Purpose – Job engagement has attracted much attention recently. However, very little research distinguishes between how the context may affect different engagement dimensions differently. Based on a theory on resource exhaustion we focus on a cognitively demanding work context in order to explore variations in effect of different engagement dimension and different expatriate work outcomes.

Design/methodology/approach – We use survey results from 102 expatriate academics in Singapore to study the relations between job engagement and expatriate work outcomes. Contrary to most studies, we examine physical, emotional, and cognitive engagement separately.

Findings – We found that for expatriate academics, the different dimensions of job engagement have different relationships with work outcomes such that physical engagement and emotional engagement are positively associated with various work outcomes while cognitive engagement is negatively related or not associated at all with the same work outcomes. We explain the variation in results by drawing on recent developments in social cognitive neuroscience.

Originality/value – This is one of the first empirical studies to examine job engagement in an international setting and the application of a social cognitive neuroscience provides a novel perspective. An engagement theory of resource exhaustion could enhance theory building as well as facilitate the understanding of the association between job engagement and work outcomes in varying contexts.

Keywords: Engagement, Expatriates, Academics, Work outcomes, Performance, Adjustment, Satisfaction, HRM, Singapore, Social cognitive neuroscience

Paper type Research paper

Introduction

Today’s organizations feel great strain to improve their performance and increase competitiveness in the increasingly globalized and continuously changing world of work (Stander and Rothmann, 2010). In order to best enable organizations to operate in uncertain and ambiguous environments, great demands are placed on employees to act and take decisions on
their own initiative. In this regard, job engagement, that is often described as a positive energized attitude to work, may be a central concept to explore (Bakker and Demerouti, 2008; Cole et al., 2012).

Job engagement is argued to be the physical, emotional, and cognitive energy that individuals employ on a work assignment (Kahn, 1990). Accordingly, job engagement can be seen as a motivational concept that characterizes the active employment of personal resources towards the tasks associated with a work role (Christian et al., 2011). Engagement may thus be a useful human resource to apply for individuals in difficult positions such as an overseas posting where they have to adjust their behavior to a new context while maintaining a high performance level (Hemmasi and Downes, 2013; Vromans and van Engen, 2013). In other words, in the demanding, equivocal, and boundary crossing activities that are inherent in cross-national contexts, employees engaged in their job could have an advantage. For example, job engagement could influence expatriates’ adjustment and work outcomes and thus the value of this group to international and foreign organizations.

Most research of expatriates has up to now focused on business expatriates. Recently, however, a number of studies of expatriate academics have been published (Richardson and McKenna, 2002; Selmer and Lauring, 2009; 2010; 2012; Isakovic and Whitman, 2013). Such studies are needed since there is evidence that universities are investing a great amount of resources in hiring and retaining international academic staff (Mamiseishvili, 2011). However, it can be argued that the increasing number of expatriate academics could make human resource management in universities more problematic as expatriate academics present growing challenges for academic institutions (Richardson and McKenna, 2000). And as international relocation is growing rapidly in the university sector, it is increasingly important to acquire knowledge of this scantily researched group (Altbach, 2005). Moreover, expatriate academics may in some aspects function differently from other types of expatriates. Especially, the cognitive engagement involved in being an academic could have important implications for working in a foreign setting. Hence, the understanding of how to manage the human resources of expatriate academics is important – not the least since this group contributes highly to the
productivity of the university sector (Levin and Stephen, 1999; Corley and Sabharwal, 2007).

The engagement concept has been used very little in empirical international management or international HRM research. One paper that has drawn upon the engagement concept in relation to expatriates is Lazarova et al.’s (2010) conceptual paper where engagement is perceived to be depending on adjustment. A number of authors, however, argue that job engagement is a relatively stable individual state even though it can to some extent vary on a day-level basis (Schaufeli et al., 2002; Macey and Schneider, 2008; Wefald et al., 2011). For example, Sonnentag (2003) demonstrated that engagement varies around what she terms a certain “trait” level. In a longitudinal study, Mauno et al (2007) found that over a two year period, intra-individual engagement levels did not vary much thus supporting the conception of engagement as enduring. Based on the above argument as well as on the fact that many academics continue their job abroad in a way that is very similar to what they have done in their home country, we argue that job engagement may well be perceived as an independent variable affecting how expatriates function in the foreign setting.

Engagement is most often described as a multidimensional construct including physical, emotional, and cognitive dimensions (Kahn, 1990). While a limited number of studies have found varying effects of the different dimensions of engagement (Britt et al., 2012), most researchers still treat engagement as a unitary construct without distinguishing between the different dimensions (e.g. Schaufeli et al., 2002; Schaufeli et al., 2009; Wefald and Downey, 2009). We argue that different dimensions of engagement may have different effects on the work outcomes in different work contexts. In this case we focus on expatriate academics because they work in a cognitively demanding work environment while at the same time having to adjust to a foreign country’s work practices. More precisely, we maintain that while physical and emotional engagement employed at academic work in a foreign setting will improve job outcomes, cognitive engagement in the academic work could strain the limited cognitive processing capacity so that the individual is less able to function in a novel context. More precisely, if cognitive processes have to be consciously controlled, as they would in case of novel and unusual situations, then this would require a large proportion of the available cognitive
resources. This in turn is known to cause the individual to increasingly use heuristics and stereotyping in social interaction due to the depleted cognitive capacity (Ashmore and Del Boca, 1981; Baddeley, 2003).

Theories such as the social exchange theory (Emerson, 1976), conservation of resources theory (Hobfoll, 2001), and the job demand-resources (JDR) model (Bakker and Demerouti, 2007) has been used to explain the relations between job engagement and its antecedents (e.g. job resources). However, little theoretical work has dealt with the relation between engagement and its outcomes. So far, it has more or less been assumed that engagement, understood as energy activated on the job, will positively affect all aspects of work outputs in any circumstance. We believe that more theory building is needed for understanding the relation between job engagement and work outcomes.

Hence, by using cognitive neuroscience as a theoretical foundation for understanding the potential for a diversified effect of different job engagement dimensions on expatriate work outcomes in a cognitively demanding context, we contribute not only to international HRM but also to the engagement debate and to theory building on a more general level. In other words, the contribution of this paper is 1) a small first step towards a more nuanced theory building on the relation between job engagement and work outcomes, and 2) a demonstration of the effect of job engagement on the work outcomes of individuals working in a foreign country.

**Theoretical foundation**

The general argument of this article is that different dimensions of engagement could have different effects on expatriate work outcomes. While there are many potential expatriate work outcomes, this study will primarily deal with four basic variants: Job adjustment, time to proficiency, job satisfaction, and work performance. We have chosen these specific variables because they cover basic parts of work outcomes of expatriates in terms of the degree and speed of adjusting to work in the new context as well as emotional and evaluative performance criteria (Breiden et al., 2006; Selmer and Fenner, 2009; Shih et al., 2010). With regard to satisfaction, it may be argued that there are some similarities between engagement and job satisfaction.
However, even though both describe some sort of employee well-being, there are also important differences. While job satisfaction has to do with the degree to which the work meets the individual’s needs, job engagement is related to the energy and enthusiasm for the work itself (Maslach et al., 2001). Thereby, job satisfaction is more reactive than engagement in terms of feelings about what has already been attained and is likely to be attained in the future (Warr and Inceoglu, 2012).

We use a group of expatriate academics to make the point that the energy that is involved in job engagement can be drained differently in different situations and thus lead to variation in job outcomes depending on the work context and type of job demands. Since expatriate academics work in situations where they have to apply substantial cognitive resources on performing their basic job requirements (doing research and communicating difficult material) the energy left for intercultural interaction could be limited, thus negatively affecting their foreign country work outcomes.

To make this argument, we rely on cognitive neuroscience that is an interdisciplinary research field including e.g. neuroscience and psychology. The main aim of cognitive neuroscience is to understand how the brain enables the mind - or how the cognitive functions are produced in the brain (Gazzaniga et al., 2008). In the subfield social cognitive neuroscience, the aim is to understand human interactions at the intersection of social, cognitive, and neural spheres of science by studying processes in the human brain that allow people to understand others and themselves leading to effective navigation in the social world (Ochsner and Lieberman, 2001; Waldman and Balthazard, 2011).

A general theme in social cognitive neuroscience is distinguishing between conscious and non-conscious cognitive processes. Conscious processes are effortful and slow and occur when faced with novel and poorly understood tasks. Non-conscious processes that occur in well-known situations are automatic and therefore fast and effortless (Lieberman et al., 2003). Since conscious processes use much more of the cognitive capacity than the non-conscious, they are more difficult to perform if the cognitive system is already strained by other complex controlled
processes such as reasoning and decision-making in unknown situations (Baddeley, 2003).

The basic assumption of studies in this field is that the human brain has a limited cognitive capacity that only allows for a restricted number of concurrent conscious processes (Gilbert, 1989). Dealing with a foreign culture in a foreign or second language can be argued to be a complex endeavor involving substantial searching and processing of information to gain knowledge of the role of contextual factors that may be relevant in a given situation (cf. Kane and Engle, 2003). This is, for example, substantiated by the availability of cognitive processing capacity being linked to language comprehension and learning (Daneman and Carpenter, 1980; Süß et al., 2002). It can thus be argued that humans have a limited cognitive capacity and that dealing with foreign cultures in a foreign language will claim a substantial proportion of available resources.

Another argument in cognitive neuroscience is that if a person is at his or her limit for cognitive processing, then this person will reduce the load on the cognitive resources by simplifying the processes moving them from the conscious domain to the unconscious, automatic domain (Wegner and Bargh, 1998). In other words, if cognitively strained, individuals will resort to using non-conscious processing based on automated heuristics from the known context (Tversky and Kahneman, 1974; Gilbert and Hixon, 1991). This will be done in order to reduce time and effort involved in complex conscious cognition (Evans, 2006).

For example, studies have found clear activation in certain areas of the cortex when taking another’s perspective (Jackson et al., 2006; Waldman and Balthazard, 2011). Accordingly, there appears to be a neurological explanation for why it requires cognitive capacity to understand the feelings, emotions, and reactions of individuals from other cultures. It has also been found that emotional regulation that is important in intercultural encounters, e.g. in relation to culture shock, requires much cognitive processing while emotional activation per se does not (Cole et al., 2004).

A prominent simplifying heuristic that individuals will resort to when confronted by a foreign
work environment is stereotyping. While this cognitive process reduces the mental burden of intercultural interaction for expatriates, it also introduces substantial attribution and decision making biases (Tajfel, 1982; Steele, 1997). Moreover, when in a state of cognitive overload there is a greater likelihood that systematic errors and biases caused by stereotyping and their effect on dealing with the environment will not be detected due to the automation of the cognitive processes (Miller, 2000; Evans, 2006).

Based on the above, we propose a theory of resource exhaustion in relation to job engagement suggesting that since certain environments may deplete or enhance different types of resources, the physical, emotional, or cognitive energy applied to a job situation can result in more or less available resources for producing favorable job outcomes. In this study we focus on how the exhaustion of cognitive resources in an academic environment may affect intercultural capabilities. In other words, we suggest that all types of engagement are not good for all types of work outcomes – especially in environments with dual demands.

**Hypotheses**

*Physical engagement*

The physical dimension of engagement is often described as vigor. According to Schaufeli et al. (2002) individuals with this type of engagement are seen as being energetic, mentally resilient, and able to persist when difficulties arise at work. Physical engagement also entails a willingness to invest effort on the job.

With regard to job adjustment and time to proficiency, vigorous employees have been found to have greater influence over events that affect their lives. This may be related to their activity level leading to positive feedback in terms of appreciation, recognition, and success (Bakker and Demerouti, 2008). In a foreign context, the high activity level and resilience could make expatriate academics quicker overcome obstacles in adjusting to life in a foreign country.

Physical engagement may also have an effect on the satisfaction expatriates feel performing their
job in the foreign country. This may be described in terms of hedonic versus eudaimonic perspectives on the nature of well-being (Warr and Inceoglu, 2012). When a person experiences pleasure and avoids pain, that person feels well-being in hedonic terms. However, well-being or satisfaction may also originate from the pursuit of objectives that are in some sense worthwhile. In other words, the activity and resilience involved with achieving a goal can be highly satisfying. This is the eudaimonic perspective. Warr and Inceoglu (2012) argue that in motivated states like job engagement, people by definition have wants that are unsatisfied, whereas in more reactive states like job satisfaction, individual’s wants have been or are expected to be fulfilled. Accordingly, job engagement may result in satisfaction from the effort of achievement while satisfaction does not necessarily affect the level of engagement. This is consistent with Locke’s (1976) original argument that job satisfaction is a pleasurable emotional state resulting from the appraisal of one’s job as achieving or facilitating the achievement of one’s job values. According to this perspective, the effort of succeeding in functioning well in a foreign context will be satisfying as this is an even greater accomplishment than in a domestic setting.

Finally, physical engagement may well influence the performance of expatriate academics as the endurance will make them able to deliver high quality work results despite the hardship of dealing with a foreign context. Physically engaged individuals have been argued to have a high level of connectivity with their work tasks and being highly concerned with performance outcomes (Bakker and Demerouti, 2008; Christian et al., 2011; Britt et al., 2012). This should make expatriate academics attuned to aspects of the work environment that will increase their possibility for performing well despite the novelty of working abroad. Bakker, Demerouti, and Verbeke (2004) showed that engaged employees received higher ratings from their colleagues on both in-role and extra-role performance, indicating that physically engaged employees perform well and are willing to go the extra mile. This kind of energized performance-oriented searching behavior may motivate the expatriate to choose the best practices in the new context. Hence, since the physical engagement required to perform the job as an expatriate academic should not drain resources necessary for interactional activities we formulate the first set of hypotheses:

Hypotheses 1a-d: For expatriate academics, physical job engagement is positively associated
with a) job adjustment, b) job satisfaction, c) work performance, and d) negatively associated with time to proficiency.

*Emotional engagement*

Emotional engagement is most often labeled dedication and is as such characterized by strong involvement in work, enthusiasm, and an outspoken sense of pride, significance, and inspiration. In other words, emotionally engaged individuals see their job as meaningful and important.

In terms of job adjustment and time to proficiency, dedicated individuals have been argued to be better connected to expectations in the surroundings. In other words, individuals that see their job as meaningful should be more willing to invest themselves more fully in their adjustment to the new situation abroad and they should be more willing to step outside the bounds of their normal routines and engage in new ways of working (Bakker *et al.*, 2012). As such, expatriate academics that are emotionally engaged would be more focused at adjusting to work in a foreign country.

Another reason why engaged expatriates may adjust better and quicker to the job context could be their ability to create their own emotional resources such as optimism, self-efficacy, and organization-based self-esteem (Schaufeli and Bakker, 2004; Bakker and Demerouti, 2008). These emotional resources could ease and speed-up the adjustment of the expatriate to the job requirements of the host country because the individual will be more emotionally robust when confronted with e.g. culture shock.

In terms of satisfaction, emotionally engaged employees have been found to exhibit more proactive behavior, more personal initiative, and more learning motivation which are all known to be associated with job satisfaction (Wefald *et al*., 2011). Learning motivation is especially relevant in an expatriate context because expatriate functioning is argued to follow a learning curve (Black and Mendenhall, 1991).

Finally, emotional engagement may also increase the performance of expatriate academics.
Dedicated employees often experience positive emotions, including happiness, joy, and enthusiasm (Bakker and Demerouti, 2008). Such positive emotions seem to broaden individuals’ momentary thought-action repertoire which can be highly important in order to thrive in a foreign setting (Selmer and Lauring, 2013; 2014). They simply draw on a greater variety of personal resources, thoughts, and actions for solving problems (Fredrickson, 2001). This includes physical resources (e.g. physical skills, health), social resources (e.g. friendships, social support networks), intellectual resources (e.g. knowledge, executive control), or psychological resources (e.g. self-efficacy, optimism) (Bakker et al., 2012). Hence, emotional engagement fosters a mental frame in which the expatriate includes a wider array of behaviors that could ultimately benefit their performance (Sonnentag et al., 2012). Thus because the emotional engagement required to perform the job as an expatriate academic should not deplete resources necessary for interactional activities, we present the second set of hypotheses:

Hypotheses 2a-d: For expatriate academics, emotional job engagement is positively associated with a) job adjustment, b) job satisfaction, c) work performance, and d) negatively associated with time to proficiency.

Cognitive engagement

Cognitive engagement is often termed absorption. This can be described as full concentration on the job and as the experience of being happily engrossed in one’s work. Individuals highly absorbed in their work can be so immersed that they lose all track of time and have difficulty detaching themselves from job activities.

All dimensions of engagement have generally been conceptualized from a purely positive perspective (e.g. Schaufeli et al., 2002; Schaufeli and Bakker, 2004). However, a number of scholars have started to argue that some aspects of engagement may also have a dark side (e.g. Hallsten, 1993; Vinje and Mittelmark, 2007; Kühnel et al., 2009; Britt et al., 2012). This notion can be based on Kahn’s (1990) observation that engaged workers are motivated to expend energy even in the face of difficulties and threats to their long term well-being. From this line of thinking, one can conceive of an engaged employee as someone who is especially responsive to
factors in the work environment. Because of this attunement, highly cognitively engaged employees can be very sensitive to features of the work environment that could also have the capacity to harm them. In line with this, Hallsten (1993) argues that too much absorption can be threatening for the individual and may cause burnout. Vinje and Mittelmark (2007) found that the absorption of highly engaged nurses to the meaningfulness of their profession overshadowed the importance of manageability of their professional responsibilities. This in turn led to a negative spiral of frustrations about not living up to one’s high standards.

The totally absorbed academic with little concern for the material or social surroundings is a well-known image used in many narratives throughout history. This may often be a fictional character with exaggerated traits. Nonetheless, the internet flourishes with descriptions of personal experiences with wacky, nutty professors who may not have been able to function outside the ‘ivory tower’ using almost all cognitive resources on job tasks leaving few for dealing with the social environment surrounding them. In this regard, Benton (2013) argues that eccentric professors are not ‘professional’ types demanding theoretical rigor or narrow specialization. Instead they are fascinated or even obsessed with something they want to know everything about. If particularly cognitively engaged academics could have difficulties to adjust to social norms and function in their immediate domestic context, this would be much more difficult in a foreign country.

Based on cognitive neuroscience, we argue that the cognitive energy applied to the job context (doing research) could in some cases be damaging to the adjustment and functioning in a foreign country if it removes attention from anything but the scholarly endeavors. In other words, if cognitive resources are depleted by one’s academic work then heuristics and stereotyping will be used in dealing with the foreign environment instead of a conscious searching for information of what would be the appropriate way to handle a given situation (Gilbert and Hixon, 1991). This would reduce the ability to adjust well and quickly to social practices in the new context. It would also make it more difficult to perform to the optimum. In turn, working in a foreign setting would be a less satisfying experience. This is also in line with studies showing that expatriates recruited on basis of excellent professional skills may not yield the best work results
because they lack other skills and characteristics in order to bring their superior professional abilities to bear in a foreign context (Tung, 1981). Accordingly, we present the last set of hypotheses:

Hypotheses 3a-d: For expatriate academics, cognitive job engagement is negatively associated with a) job adjustment, b) job satisfaction, c) work performance, and d) positively associated with time to proficiency.

Method

Target population and data collection
The study targeted expatriate academics residing in Singapore. Expatriate academics are a particularly interesting type of expatriates. Their specific skills make them highly mobile in the international job market. Changing jobs across national boundaries is not only a way for academics to fully utilize the bargaining power provided by their high nonfirm-specific human capital, it is also a merit in itself adding to their human and social capital (Welch, 1997). Singapore was selected because in terms of cultural and institutional context, Singapore represents a unique context that expatriate academics have to adjust to (Marginson, 2011). It also hosts numerous expatriate communities (Beaverstock, 2011), making it a suitable target for this investigation. A web-based survey software package was used to administer the questionnaire. Based on information from university web pages and LinkedIn, the online questionnaire was sent to 257 expatriate academics employed at 9 universities in Singapore. Initial screening questions were applied to retain only expatriate academics. The questionnaire was only sent to e-mail addresses of universities in Singapore but to make sure that respondents were residents of the targeted country, initial screening questions were applied to retain only expatriate academics who were residents in Singapore. Eventually, 113 responses were received amounting to a response rate of 44 per cent. Of these, 102 respondents passed all screening questions.

Sample
The average age of the respondents was 45.43 years (SD=10.55) and, on average, they had spent
6.50 years in Singapore (SD=5.81) having worked as an expatriate academic for an average of 11.13 years (SD=7.26), including their current job. A majority of them was male (73.5%) and married (71.6%). There was a balance between senior and junior positions in the sample and most academic fields were well represented. A clear majority (79.4%) was from non-Asian countries. In the sample, respondents from the U.S. (19.8%), Australia (8.9%), Canada (8.9%), and the U.K. (8.9%) were the most frequent.

**Instrument**

All main variables were measured by established multi-item scales. Job engagement was measured with the widely applied Utrecht Work Engagement Scale which includes the three subscales of physical engagement (alpha=.84), emotional engagement (alpha=.87), and cognitive engagement (alpha=.74) (e.g. Schaufeli et al., 2002). For the purpose of this study, we report the three dimensions separately, even though many studies conceptualize the measures as a single dimension of job engagement (e.g. Christian et al., 2011). The questionnaire was administered in English to all respondents.

Work outcomes were measured by four scales. Job adjustment (alpha=.88) was assessed by the commonly used scale developed by Black and Stephens (1989). To measure time to proficiency (alpha=.77), we used the four-items scale by Pinder and Schroeder (1987). Job satisfaction (alpha=.77) was assessed by a four-item, seven-point scale by West, Nicholson and Reese (1987). Work performance (alpha=.83) was measured by a four-item, seven-point scale by Early (1987).

Time in current location was applied as a control variable since adapting to a new location and job abroad can be regarded as a process over time following a learning curve (Black and Mendenhall, 1991). Also, time as an expatriate academic was applied as control since there may be some similarities between how academic work is undertaken in different foreign locations, and the longer the experience of the respondents, the greater could be the likelihood that they have acquired useful ways to organize and discharge their work in Singapore (cf. Furnham and Bochner, 1986).
Results

Table 1 displays sample means, standard deviations and zero-order Pearson correlations of the variables. The significant relationships between the two proposed control variables and three of the four criterion variables support the use of these variables as controls in the regression analyses.1

The hypotheses were formally tested by way of hierarchical multiple regression (Table 2). The control variables were entered in Step 1. That resulted in a significant positive association between time in host location and job adjustment (beta=.33; p<.01). In Step 2, the engagement variables were entered. This produced significant relationships with all of the criterion variables, explaining between 15 percent and 48 percent of the variance of these variables. Physical engagement had positive associations with job adjustment (beta=.27; p<.05) and work performance (beta=.46; p<.001). There was also a positive association between emotional engagement and job satisfaction (beta=.64; p<.001) as well as a negative relationship with time to proficiency (beta=-.27; p<.10). Finally, there was a negative relationship between cognitive engagement and job satisfaction (beta=-.17; p<.05). All F values were statistically significant, indicating a proper fit between the regression model and the data. These findings provide support for hypotheses 1a, 1c, 2b, 2d, and 3b.

Discussion

Main findings
As predicted, we found that different dimensions of job engagement seem to have different relationships with work outcomes of the expatriate academics. Physical engagement had positive

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1 Despite some relatively high inter-correlations among independent and control variables, collinearity statistics did not indicate any problems in the regression analyses (VIF<10).
associations with job adjustment and work performance. In particular, the relationship with work performance is strong. This result can be explained by physical engagement being defined by willingness to invest energy in one’s job. However, we found no association either between physical engagement and time to proficiency or job satisfaction. Interestingly, those exact work outcome dimensions were positively associated with emotional engagement that had no relationship with job adjustment or work performance. As might be expected emotional engagement had a particularly strong positive association with job satisfaction (see Warr and Inceoglu, 2012).

Physical engagement and emotional engagement seem to be complementary in their possible effect on work outcomes. Accordingly, in order to achieve positive work outcomes in all aspects, expatriate academics may need to see the job abroad as meaningful and be willing to invest energy in it. The suggestion that physical engagement and emotional engagement may have had complementing effects on expatriate work outcomes may indicate that the two dimensions indeed are separate parts of an overall construct. However, based on our findings, it has to be recognized, at least in an international setting, that the two dimensions do not have the same association with important organizational variables. This is important knowledge because it indicates that in an international academic environment viewing job engagement as a unitary construct may not be appropriate. Nonetheless, since physical and emotional engagement together produced relationships with all work outcome dimensions, our study supports the conclusion by Harter et al. (2002) that ‘engagement is related to meaningful business outcomes at a magnitude that is important to many organizations’ (p. 276).

Of the three job engagement variables, the weakest link to work outcomes seems to be cognitive engagement, with only one association with job satisfaction. However, that also seems to be the most interesting. As predicted, based on theory development in cognitive neuroscience (see Gazzaniga et al., 2008), it is a negative relationship. While most studies have perceived job engagement as a positive organizational variable (Bakker et al., 2012; Christian et al., 2011; Schaufeli et al., 2002), ours is not the first study to find negative aspects of engagement (Britt et al., 2012). Cognitive engagement, in particular, has been found to negatively influence employee
well-being (Hallsten, 1993; Vinje & Mittelmark, 2007). Based on such prior empirical findings and on the theoretical notion of resource exhaustion, it is therefore not too surprising that a negative relation between cognitive engagement and work outcomes was found with regard to job satisfaction. Hence, it is likely that a cognitively demanding job environment will drain mental resources necessary for engaging in intercultural activities. In other words, in the case of expatriate academics, it could be speculated that an excessively focused approach to job tasks could lead to blindness towards other aspects of a job in a foreign country, such as adjusting to general life and to interaction with locals at work or outside work. A very high cognitive engagement in the work tasks could also lead to neglect of family relations that are known to be extremely important for the general satisfaction of expatriates (Brown, 2008; Lauring and Selmer, 2010). The negative effect of cognitive engagement is especially important for theory building in this field. While similar empirical findings have been made, they have not been used for theory building. This is unfortunate, since theory building in engagement research has focused almost entirely on the link between engagement and its antecedents and not on the connection between engagement and its outcomes (see Bakker et al., 2007). More research, however, is needed to further explore those themes. Such research could try to incorporate biological measure to further test our ideas (see Waldman and Balthazard, 2011).

As such, the theoretical notion of engagement leading to resources exhaustion, if there are dual demands among job requirements, should be investigated further. In this study, we focused on the draining of cognitive resources. However, one could speculate that other job types may drain needed emotional or physical resources as well. For example, could high engagement in work in a refugee camp drain emotional resources, thus affecting work outcomes, where such resources are necessary (e.g. therapeutic work)? And would individuals that were less emotionally engaged provide better job outcomes in e.g. therapeutic work? Such unanswered questions should be examined in further studies.

Finally, the findings may to a certain extent be contingent on the specific cultural context of Singapore. Previous research in Singapore has found that while expatriate’s culturally adequate relational leadership skills are beneficial for their success at work in this host location, the
ethnocentrism of local subordinates were detrimental to their work adjustment (Templer, 2010). It can be speculated that the demonstrated beneficial elements of job engagement of expatriate academics may to a certain extent counter subordinates’ ethnocentrism while at the same time motivate those academics to apply a more relational leadership style.

**Limitations**

This study has a number of potential shortcomings that has to be taken into consideration when interpreting its results. Naturally, the sample consisting of expatriate academics only in Singapore may limit generalizations to this setting. Another potential problem of this study could be common method variance (CMV) since all the data were collected by cross-sectional self-reports. However, the general and automatic condemnation of cross-sectional self-report methods have been found exaggerated (Lindell and Whitney, 2001). To investigate the potential for biases of CMV, Harman’s single factor test was applied (cf. Aulakh and Gencturk, 2000). The exploratory factor analysis of the items, corresponding to all the variables of the study, resulted in a seven-factor, unrotated solution where none of the factors accounted for the majority of the covariance among the factors. Finally, the fact that we obtained different results for the different job engagement dimensions does not make CMV bias likely. These observations may together suggest that for testing our general proposition, namely that different dimensions of job engagement could have different effects on expatriate work outcomes, CMV bias was not a serious problem in this study.

Another limitation of this study is that we used self-report measures of job engagement and work outcomes. While this is the most common way of using the Utrecht Work Engagement Scale, data from supervisors or peers could also have been applied.

The average length of respondents stay in Singapore was 6.5 years which appears long compared to the traditional OE expatriate assignment of 3-5 years, evoking a suspicion that some of the respondents could have been immigrants and not expatriates. Although previous research suggests that SIEs tend to stay longer than OEs in foreign assignments (Baruch et al., 2013), one of the initial screening questions posed to respondents were: “Is your nationality different than that of the host country?”. Although this may not guarantee expatriate status, it may nevertheless
be a relevant proxy (Selmer & Lauring, 2010). Unfortunately, we did not collect any additional data about the respondents relevant to this issue, as, for example, whether they had an end-point to their assignment in Singapore.

Yet another potential limitation emanates from retrospective questioning. The way the variable time to proficiency was measured may have been biased by memory effects (cf. Sikkel, 1985). During the long average stay of the respondents in Singapore, it is not difficult to imagine that such a self-assessment could have been affected by the passing of time, especially for long-time resident expatriates among the respondents. However, it is not possible to decide to what extent the possible bias may be systematic or resulting in an over- or underestimation.

Finally, since this investigation used a cross-sectional research design, causality cannot be determined with certainty. However, most researchers acknowledge that even though an individual’s engagement level may vary from day to day, it is also a relatively stable state with high interpersonal variation (Mauno et al., 2007; Wefald et al., 2011). One result that suggests that the assumed causality of this study is reasonable is the finding that cognitive engagement is negatively related to job satisfaction. Although it can easily be explained that for expatriate academics, too much absorption into one’s work will make work less satisfying because one will not be able to establish important social relations with foreign nationals, it is difficult to imagine that being highly satisfied on the job will lead to applying low levels of cognitive effort to the task. This direction of the causality is in line with the general argument in much psychological research (Sonnentag, 2003; Mauno et al., 2007; Macey and Schneider, 2008) but contradicts the predictions of a recent conceptual management article (Lazarova et al., 2010). However, it is plausible that some dual causality exist between job engagement and expatriate work outcomes.

**Implications**

Theoretically, this study contributes to the literature on expatriates as well as to studies on job engagement in general. With regard to expatriate research, the very large group of academics taking up positions in university organizations in foreign countries has been investigated only by very few researchers. Since this group is rapidly growing and has a great impact on their host organizations,
there is a genuine need for more knowledge in this area.

While it is not clear to what extent the results of this article can be generalized to other types of expatriates, the findings of this study show that job engagement has an important effect on some of the key variables in expatriate research, namely adjustment, satisfaction, and performance. Accordingly, the job engagement construct should have a more central position in models depicting antecedents and consequences of expatriates’ organizational behavior as well as the management of the human resources involved. While different relationships on expatriate work outcomes were found for the different engagement dimensions, all areas were involved. This means not only that engagement is important for expatriates, but that different types of engagement may affect different dimensions of their work in different ways. Hence, expatriate research should focus not on job engagement as a unitary construct, but on each of the three dimensions in separation.

Our study also contributes to engagement research in more general terms. Since little theory development has focused on the link between engagement and its outcomes, we suggested that more could be done in this area. Based on social cognitive neuroscience we propose that an engagement theory of resources exhaustion may contribute to explain in greater detail relations between different engagement dimensions and varying work outcomes. Our notion has been that cognitive, emotional, and physical resources may be exhausted by high levels of engagement that could subsequently impair other work outcomes demanding the same type of job-directed energy. Hence, in job situations with dual demands high engagement levels in one area may not always lead to high performance in other areas.

While our results are not conclusive, they provide an initial indication that a cognitively demanding environment could potentially drain mental resources, so that other perceptual processes (intercultural functioning) will be reduced, thus making work life less satisfactory. We have by no means proven this theory, but urge other researchers to follow-up our exploratory thoughts.

With regard to practical implications, our study provides grounds for some suggestions for managing expatriates in general and expatriate academics in particular. Generally, the results of this
study support the initiating of activities that will help organizations ensure a high degree of physical and emotional engagement among its international staff. The academic staff could be selected based on a high level of physical and emotional engagement. Indications of such a level could be derived from interviewing colleagues and by inspecting a person’s track record that could give indications of the energy applied to the job. Several studies have also revealed that challenging, resourceful work environments facilitate job engagement (Bakker and Demerouti, 2008; Kühnel et al., 2009; Bakker et al., 2012). This implies that universities in order for their expatriate staff to provide beneficial work outcomes, should offer their employees appropriate challenges and sufficient job resources, including feedback, organizational support, and development of skill variety (Schaufeli and Salanova, 2007; Sonnentag et al., 2012).

Our study, however, also shows a negative association between cognitive engagement and job satisfaction. Hence, individuals that are too emerged in their academic thinking could experience problems in relocating to a different country. They simply spend their cognitive energy on other things than functioning in a foreign setting. Organizations should be careful when selecting this type of expatriate staff. In case expatriate academics are found to be too heavily engaged in their scholarly endeavors, initiatives could be taken to redirect some of their focus to adjustment and engagement in the foreign surroundings. One step could be to reduce heavy workloads or clarify expectations since there is a chance that dissatisfied expatriate staff may terminate their contract prematurely.
References


Vromans, P. and M. van Engen (2013), "Presumed cultural similarity paradox: Expatriate
adjustment and performance across the border or over the globe", *Journal of Global Mobility*, Vol. 1, No (2), pp. 219 - 238.


TABLE 1: Means, Standard Deviations, and Correlations among the Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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</thead>
<tbody>
<tr>
<td>1. Job Adjustment</td>
<td>5.55</td>
<td>1.24</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2. Time to Proficiency</td>
<td>.25</td>
<td>.87</td>
<td>-.32***</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. Job Satisfaction</td>
<td>5.40</td>
<td>1.08</td>
<td>.40***</td>
<td>-.42***</td>
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<tr>
<td>4. Work Performance</td>
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<td>.38***</td>
<td>-.47***</td>
<td>.50***</td>
<td>1.00</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5. Physical engagement</td>
<td>5.16</td>
<td>1.11</td>
<td>.39***</td>
<td>-.35***</td>
<td>.57***</td>
<td>.58***</td>
<td>1.00</td>
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<tr>
<td>6. Emotional engagement</td>
<td>5.76</td>
<td>.99</td>
<td>.39***</td>
<td>-.36***</td>
<td>.70***</td>
<td>.51***</td>
<td>.46***</td>
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<td>7. Cognitive engagement</td>
<td>5.15</td>
<td>.86</td>
<td>.22*</td>
<td>-.09</td>
<td>.23*</td>
<td>-.25*</td>
<td>.50***</td>
<td>.46***</td>
<td>1.00</td>
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<tr>
<td>8. Time in Host Location</td>
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<td>5.81</td>
<td>.26**</td>
<td>-.06</td>
<td>.17</td>
<td>.22*</td>
<td>.10</td>
<td>.15</td>
<td>.05</td>
<td>1.00</td>
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<td>9. Time as an Expatriate Academic</td>
<td>11.13</td>
<td>7.26</td>
<td>.10</td>
<td>-.12</td>
<td>.21*</td>
<td>.25*</td>
<td>.20*</td>
<td>.12</td>
<td>.17</td>
<td>.65***</td>
<td>1.00</td>
</tr>
</tbody>
</table>

* p<.05; *** p<.001 (2-tailed)

1 n=102
TABLE 2: Results of Hierarchical Regressions for Job Engagement on Work Outcomes

<table>
<thead>
<tr>
<th>Work Outcomes</th>
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<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Job Adjustment Time to Proficiency Job Satisfaction Work Performance</td>
</tr>
<tr>
<td>β</td>
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<p>| |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Step 1 (Control)</td>
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<tr>
<td>Time in Host Location</td>
</tr>
<tr>
<td>Time as an Expatriate Academic</td>
</tr>
<tr>
<td>R²</td>
</tr>
<tr>
<td>F</td>
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</table>

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2 (Job Engagement)</td>
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<td>Physical engagement</td>
</tr>
<tr>
<td>Emotional engagement</td>
</tr>
<tr>
<td>Cognitive engagement</td>
</tr>
<tr>
<td>ΔR²</td>
</tr>
<tr>
<td>R²</td>
</tr>
<tr>
<td>ΔF</td>
</tr>
<tr>
<td>F</td>
</tr>
</tbody>
</table>

a All standardized regression coefficients are from the last model of the analyses. 
† p<.10, * p<.05, ** p<.01; *** p<.001; two-tailed