

Work Climate: Implications for Pro-Environmental Behavior, Workplace Engagement, and Recruitment

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Candidate Certification

I certify that the work in this thesis has not already been submitted for any degree and is not being submitted for any other degree to this or any other university.

I certify that all help received in preparing the thesis and all sources used are duly acknowledged.



Carol Hicklenton

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For Logan and Miles



Please be advised that this is a thesis by publication.

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How Personal Values Shape Job Seeker Preference: A Policy Capturing Study

Table of Contents

Candidate Certification	ii
Acknowledgements	iii
Table of Content.....	v
Table of Figures	viii
Table of Tables.....	ix
Abstract	x
Chapter 1 - General Introduction	13
Definitions.....	15
Theoretical Foundations.....	17
The Mediating Role of Motivation	19
Work Climate and Pro-Environmental Behavior.....	21
Pro-Environmental Work Climate and Worker Engagement	24
Workplace Attributes and Job Seekers' Perceptions of Organization Attractiveness.....	25
Methods.....	27
Thesis Overview.....	29
References	33
Chapter 2 - Can work climate foster pro-environmental behavior inside and outside of the workplace?	41
Abstract	42
Introduction	43
Self-Determination Theory	43
Pro-environmental Climate and Employee PEB Motivation.....	45
Autonomy Support and Employee Motivation	46
Autonomous and Controlled Motivation and PEB	47
Spillover to Non-Workplace PEB.....	48
The Current Study.....	48

Methods.....	49
Discussion.....	57
References.....	62
Statement of Originality.....	66
Statement of Authors' Contribution.....	67
Research Progression to Study 2 (Chapter 3)	68
Chapter 3 - Does Green-Person-Organization Fit Predict Intrinsic Need Satisfaction and Workplace Engagement?	69
Abstract	70
Introduction.....	70
Work Climate.....	71
Person-Environment, Person-Organization, and Green-Person Organization Fit	72
Self-Determination Theory and Fit.....	74
The Current Study.....	76
Methods.....	76
Discussion.....	84
References.....	88
Statement of Originality.....	95
Statement of Authors' Contribution.....	96
Research Progression to Study 3 (Chapter 4)	97
Chapter 4 - How Personal Values Shape Job Seeker Preference: A Policy Capturing Study	98
Abstract	99
Introduction.....	100
Organizational Attractiveness	100
Person-Organization Fit and Perceptions of Attractiveness	103
Personal Values and Perceived Organization Attractiveness	104
The Current Study.....	105

Methods.....	107
Results	111
Discussion	118
Conclusion.....	124
References	126
Statement of Originality	130
Statement of Authors' Contribution.....	131
Chapter 5 - General Discussion and Conclusion.....	132
Main Findings and Theoretical and Practical Implications.....	133
Strengths, Limitations, and Future Research	140
References	144
Appendices	148
Consolidated Reference List	148

List of Figures

Figure 1.1 Overall flow of the thesis. Three studies in the program of research are briefly described.....	32
Figure 2.1 Moderated mediation model showing (1) autonomy support moderating the effects of pro-environmental climate on autonomous PEB motivation, and (2) autonomous PEB motivation mediating the effects of the work climate variables on workplace PEB and non-workplace PEB.	57
Figure 3.1 Interaction plots of the predictive effects of work climate on employee need satisfaction and engagement for three levels of environmental values.	84
<i>Figure 4.1.</i> Cross-level interactions between personal values and workplace attributes predicting job-seekers' perceptions of organizational attractiveness. Note that the cross-level interaction between environmental value and self-enhancement failed to reach statistical significance ($p = .06$), but exhibited the same general pattern as the social value and application values interactions with self-enhancement.	117

List of Tables

Table 2.1 Zero order correlations and descriptive statistics for study variables.....	54
Table 3.1. Zero order correlations and descriptive statistics for study variables.....	81
Table 4.1 High and low descriptors for workplace attributes (Based on the Employer Attractiveness Scale Dimensions).....	109
Table 4.2 Level 1 analysis of workplace attributes predicting organization attractiveness	113
Table 4.3 - Level 2 analysis of job seekers' personal values predicting Level 1 effects	116

Abstract

Business activity to address issues of sustainability, environmental protection, and climate change has associated costs and benefits that organizations are likely to consider before embarking on strategies to address these concerns. This thesis examined the influence of work climate on motivation and engagement for current and prospective employees in Australia. Self-determination theory (SDT) and person-organization (PO) fit theory were the main theoretical frameworks used in this program of research to investigate employees' motivation, work engagement, and pro-environmental behavior inside and outside the workplace; and job seekers' perceptions of the attractiveness of a range of workplace attributes. A total of three empirical studies were conducted in order to address three corresponding research questions: (1) How does work climate (i.e., pro-environmental work climate and employee autonomy support) influence employee motivation to engage in pro-environmental behavior (PEB) inside the workplace, and can certain aspects of work climate foster high levels of autonomous motivation for PEB that encourages its spillover to areas outside the workplace?, (2) Does high green-person-organization fit (GPO; the extent to which an organization's commitment to pro-environmental outcomes is congruent with its employees' environmental values) predict employees' intrinsic need satisfaction and engagement in the workplace?, and (3) Which organizational attributes are the strongest predictors of perceived organization attractiveness in a sample of Australian job seekers, and does the magnitude of these predictive effects vary as a function of job seekers' personal values?

Study 1 investigated the potential impact of work climate on employee motivation, and pro-environmental behavior both inside and outside the workplace, to determine whether a strong pro-environmental work climate is sufficient to generate autonomous motivation to engage in pro-environmental behavior, or whether it is necessary for organizations to also support their workers' autonomy. Using moderated-mediation analysis, this study examined the process by which work climate influences employee motivation and PEB at low, moderate, and high levels of employee autonomy support. This study found that in workplaces with stronger pro-environmental climates and at least moderate levels of autonomy support, employees reported higher levels of autonomous motivation to engage in PEB. In

turn, employees with higher levels of autonomous motivation engaged in more PEBs, both inside and outside the workplace.

Study 2 extended the findings of Study 1 by examining the relationship between pro-environmental climate and employees' work and job engagement. This study combined PO fit theory and SDT to assess whether high GPO fit predicts intrinsic need satisfaction and workplace engagement. The study investigated whether a strong pro-environmental work climate increases employee motivation and engagement on its own, independent of GPO fit. This has important implications for recruitment and training. Using moderated-mediation analysis, the study also investigated the process by which GPO fit influences engagement, and whether the relationship between GPO fit and intrinsic need satisfaction is conditional on employees' weak, moderate, and strong ecocentric values. The results of this study indicated that pro-environmental climate was an important predictor of intrinsic need satisfaction and engagement. Intrinsic need satisfaction fully mediated the effect of climate on engagement, and the mediation effect held for all participants regardless of whether they had weak, moderate, or strong ecocentric values. However, the indirect effect was significantly stronger when employees' ecocentric values were strong as opposed to weak.

Study 3 built on Studies 1 and 2 by examining workplace engagement in a recruitment context and assessing job seekers' attractiveness perceptions among organizational economic, development, interest, social, application, and environmental values. This study combined PO fit theory with a policy capturing methodology to determine (1) which organizational attributes are the strongest predictors of perceived organization attractiveness, and (2) whether the magnitude of these predictive effects varies as a function of job seekers' personal values. Multi-level modelling revealed that all six attributes positively predicted job seekers' ratings of organization attractiveness; with the three strongest predictors being social, environmental, and application value. Evaluation of cross-level interactions revealed that participants with strong self-transcendent or weak self-enhancement values were most sensitive to the absence of social, environmental, and application value, downrating organizations that scored low on these attributes.

Overall, these three studies found evidence suggesting that (1) autonomous

motivation is a much stronger predictor of PEB than controlled motivation, and employees with the highest levels of autonomous motivation were found in organizations with strong pro-environmental climates and at least moderate levels of support for workers' autonomy, (2) the highest levels of employees' work motivation and workplace engagement were reported by participants with strong pro-environmental values working in organizations committed to positive environmental outcomes, and (3) job seekers regard an ideal organization as one that provides a positive social environment and is committed to customer/societal well-being and pro-environmental responsibility. These drivers were significantly more impactful than pay rates, opportunities for personal and career development, and stimulating / innovative work environments. Overall, this program of research adds to the literature on PO fit, SDT, employee engagement, employee PEB, and organization attractiveness in three important ways. First, by showing the influence of different work climates on organization attractiveness, employee motivation, work and job engagement, and workplace and non-workplace PEB. Second, by demonstrating the role of different types of motivation in mediating the relationships between work climate, and workplace engagement and PEB. Third, by showing how personal values can influence effects by work climate on motivation and work-related engagement.

Chapter 1

General Introduction

Background

In the next decade, it is likely that pro-environmental activity in business organizations will increase due to environmental regulations and reporting requirements (Blasco & King, 2017), and consumer demand for “green” products and services (Whelan & Kronthal-Sacco, 2019). For many years, news stories have described large organizations, such as superannuation funds (Brown, 2015) and oil companies (PRI, 2019), lobbying for industry changes or making operational changes to reduce environmental impacts and / or carbon emissions. Regardless of the justification for the shifts, it is important to recognize that the successful implementation of “green” policies and procedures in corporate environments requires not only pronounced pro-environmental work climates, but also the cooperation of individual employees.

Business organizations are comprised of individual employees, each with their own beliefs about what should be done, if anything, about sustainability and environmental protection, as well as more global threats such as climate change. Understanding how work climate influences employee motivation and pro-environmental behavior (PEB) is vital to the successful implementation of organizational initiatives to increase PEB. Previous studies have shown that autonomous motivation (i.e., engaging in a behavior that is consistent with intrinsic goals) positively predicts workplace performance (Deci & Ryan, 2015) and the PEB of people in non-workplace domains (Pelletier, Tuson, Green-Demers, Noels, & Beaton, 1998). Yet little is known about specific work climates that can generate employees’ autonomous motivation to engage in PEB.

Work climate refers to the policies, practices, and procedures that guide employee behavior by indicating the organization’s values (Schneider, Ehrhart, & Macey, 2013). Understanding how personal and organizational values, as enacted

through various work climates, can interact and influence workplace engagement is critical to corporate performance (Macey & Schneider, 2008). The findings of previous research suggest that work climates that reflect a commitment to corporate responsibility are positively associated with increased employee satisfaction and engagement (Kuenzi & Schminke, 2009). However, it is not yet known whether a strong corporate commitment to environmental sustainability principles and outcomes is positively associated with the motivation and engagement of workers, irrespective of an individual's personal values, or if positive relationships depend on the person-organization (PO) fit (Kristof, 1996). Likewise, previous studies on the attractiveness of corporate social and environmental responsibility in a recruitment context suggest these attributes are attractive (Greening & Turban, 2000). However, it is not known how job seekers prioritize these attributes among others such as pay and promotion opportunities, and whether the perceived attractiveness of these attributes depends on job seekers' personal values.

This thesis has two main aims. The first aim is to investigate the potential impacts of work climate on employee motivation, workplace engagement and PEB. The second aim is to examine how personal values and organizational values interact and show the specific work environments in which higher levels of motivation and engagement are most likely. Three research questions are addressed in three corresponding empirical studies:

1. How does work climate (i.e., pro-environmental work climate and employee autonomy support) influence employee motivation to engage in PEB inside the workplace, and can certain aspects of work climate foster high levels of autonomous motivation for PEB that encourages the spillover of PEB to areas outside the workplace?
2. Does high green-person-organization fit (GPO; the extent to which an organization's commitment to pro-environmental outcomes is congruent with its employees' environmental values) predict employees' intrinsic need satisfaction and engagement in the workplace?

3. Which organizational attributes are the strongest predictors of perceived organization attractiveness in a sample of Australian job seekers, and does the magnitude of these predictive effects vary as a function of job seekers' personal values?

In the following sections, definitions of work climate, workplace engagement, and pro-environmental behavior are provided, the theoretical frameworks used in this thesis for understanding motivation and the behaviors under examination are presented, and the mediating role of motivation is described. In addition, a review of previous research in this field and proposed answers to the three research questions presented. In the final section, methodological aspects relating to the present program of research are discussed, and an overview of the remaining chapters in the thesis is presented.

Definitions

Work climate. Work climate refers to the policies, practices, and procedures that direct employee performance and enforce normative standards in the work environment (Schneider et al., 2013; Zohar & Luria, 2005). In this thesis, work climate is operationalized as the perception of an organization in terms of: (1) pro-environmental climate, (2) employee autonomy support, and (3) organization attributes that describe specific working conditions. In Studies 1 and 2, pro-environmental work climate is characterized as employees' perceptions of their organization in terms of its commitment to positive environmental outcomes (Norton, Zacher, & Ashkanasy, 2014). In Study 1, employee autonomy support is operationalized as the extent to which supervisors support employees' autonomy for work tasks. In Study 3, the following six organization attributes are used to predict job seekers' perceptions of organization attractiveness based on the Employer Attractiveness Scale (EAS; Berthon, Ewing, & Hah, 2005): (1) economic value (i.e., providing a good salary and promotion opportunities); (2) development value (i.e., supporting employees' personal and career development); (3) interest value (i.e., possessing a reputation for being exciting and innovative, encouraging creativity, and providing a challenging work environment); (4) social value (i.e., providing a

positive and pleasant social atmosphere for employees); (5) application value (i.e., exhibiting a strong commitment to customer focus, social and racial equality, and operating in a manner that supports society); and (6) environmental value (i.e., the organization has strong pro-environmental policies and procedures, and encourages environmentally sustainable practices). Using these six attributes, we created 64 unique descriptions of organizations. Job seekers were presented with a random subset of 8 of 64 possible descriptions of organizations and asked to rate each hypothetical organization in terms of its perceived attractiveness.

Workplace engagement. In this thesis, workplace engagement is conceptualized in terms of different types of motivation, employee PEB, and as the work-related engagement of current and prospective employees. In Study 1, workplace engagement is operationalized as employees' autonomous and controlled motivation for engaging in PEB. This study also examines employee PEB, in which both workplace and non-workplace PEB are assessed. Autonomous and controlled motivation (Deci & Ryan, 2000) are examined as mediators of relationships between work climate and PEB. Autonomous motivation is assessed as the extent to which PEB is undertaken because it is enjoyable or because it aligns with employees' interests and values (Deci & Ryan, 2000). On the other hand, controlled motivation is assessed as PEB that is driven by internal (e.g., guilt) or external pressures (e.g., desire for recognition; Deci & Ryan, 2000).

In Study 2, employee motivation is operationalized as intrinsic need satisfaction and need satisfaction is examined as the mediating variable in relationships between high GPO fit and worker engagement. In this context, intrinsic need satisfaction refers to the extent to which employees feel autonomous, competent, and related to others at work (Deci & Ryan, 2000, 2015). Worker engagement is operationalized in terms of work and job withdrawal. Work withdrawal is the extent to which employees avoid work tasks, and job withdrawal is the frequency with which employees engage in thoughts about behavior related to leaving the organization altogether (Hanisch & Hulin, 1990).

In Study 3, workplace engagement is conceptualized as job seekers' perceptions of organization attractiveness, reflecting the general desirability of initiating or maintaining a relationship with a particular organization (Barber, 1998). Attractiveness is assessed as the extent to which participants feel attracted to and intend to pursue employment with an organization.

Pro-environmental behavior (PEB). PEB, in general, is defined as an activity that benefits the natural environment or reduces an individual's negative impact on the environment (Stern, 2000). Workplace PEB includes all workplace tasks directed at environmental protection or improvement, regardless of whether the tasks are required by a job description, prescribed by a supervisor, or done at the discretion of the employee (Boiral, Paillé, & Raineri, 2015). Non-workplace PEB refers to all activities directed at environmental protection or improvement (Steg & Vlek, 2009) undertaken in any context outside of the workplace, including the home, during recreation, or while on vacation. In Study 1, workplace PEB is assessed with a frequency measure describing behaviors that can be performed by individuals in relation to their work (Blok et al., 2015). Non-workplace PEB, on the other hand, is measured using the Frequency of Conscious Environmental Behavior Scale (Pelletier et al., 1996) which assesses how often individuals undertake acts such as choosing products that do not damage the environment.

Theoretical Foundations

Motivation has been defined as “energetic forces that initiate work-related behavior and determine its form, direction, intensity, and duration” (Pinder, 2008, p. 11). Using self-determination theory (SDT; Deci & Ryan, 2000) and PO fit theory (Kristof, 1996) as the main theoretical frameworks for understanding work-related motivation and behavior, the three studies in this thesis examine forces involving both personal and organizational factors. SDT and PO fit theory both assume “that whether a person thrives depends on the degree of correspondence between personal attributes and contextual factors” (Greguras, 2015, p. 144). According to SDT, humans are “naturally inclined to act on their inner and outer environments, engage in activities that interest them, and move toward personal and interpersonal

coherence” (Deci & Ryan, 2000, p. 230). SDT explicitly links social contexts, such as work climates, to well-being and optimal functioning through the satisfaction of basic psychological (intrinsic) needs (Deci & Ryan, 2000, 2015). According to PO fit theory, positive outcomes arise from the compatibility of employees and the organizations in which they work. PO fit research has operationalized fit in terms of shared values and goals (i.e., value and goal congruence), and also the extent to which organizations provide workplace resources that satisfy employees’ needs (i.e., need satisfaction; Kristof-Brown, Zimmerman, & Johnson, 2005). Needs and values are each conceptualized and assessed differently by PO fit theory and SDT.

PO fit conceptualizes needs as the supplies and demands offered by individuals and organizations to one another, and this is what drives attraction and performance (Kristof, 1996). Need satisfaction is assessed as the strength of correspondence between what individuals supply (e.g., time, effort, commitment, and experience) and organizations demand, or between what organizations supply (e.g., financial resources and task-related opportunities) and individuals demand (Kristof, 1996). In contrast, need satisfaction in SDT is conceptualized as the satisfaction of basic psychological needs for autonomy (i.e., the natural desire to “self-organize experience and behavior and to have activity be concordant with one’s integrated sense of self”; Deci & Ryan, 2000, p. 231), competence (i.e., a sense of proficiency when operating in a particular environment), and relatedness (i.e., the natural inclination to experience a connection with social groups), and each of these needs is “necessary for healthy development and effective functioning” (Deci & Ryan, 2000, p. 262).

Values in PO fit theory are described as fundamental characteristics of individuals and organizations. Values are operationalized as values, goals, and attitudes for individuals and as values, goals, and norms for organizations. In PO fit studies, value congruence is assessed as the extent that individuals and organizations share similar characteristics. In contrast, values in SDT are operationalized as the quality of a person’s motivation (i.e., autonomous or controlled) for an activity due to it being personally interesting or meaningful. In other words, motivation in SDT is assessed as a person’s reason for doing a particular activity. Workplace studies have

combined PO fit with SDT to examine organizational commitment and job performance (Greguras et al., 2009), however, employee motivation and engagement associated with a pro-environmental climate has yet to be examined.

The benefit of using SDT in Studies 1 and 2 is that it provides a systematic and comprehensive framework for testing hypotheses associated with both personal and contextual factors. For example, the Motivation Toward the Environment Scale (Pelletier et al., 1998), which assesses employees' reasons for engaging in PEB and containing subscales for autonomous and controlled motivation, and the Perceived Autonomy Support Scale (Deci, & Ryan, 2015; Gillet, Gagné, Sauvagère, & Fouquereau, 2013; Moreau & Mageau, 2012), which assesses how certain aspects of work climate influence employees' motivation for PEB, were utilized in Study 1. A feature that distinguishes SDT from PO fit is that SDT assesses the type, not strength, of a person's motivation. Employee autonomy support is assessed as employees' perceptions of the extent to which supervisors offer choice, explain reasons behind demands and rules, are aware of employees' feelings and accept their point of view (Deci, & Ryan, 2015; Gillet et al., 2013; Moreau & Mageau, 2012). The SDT scales for intrinsic need satisfaction and type of motivation, along with the employee autonomy support scale, capture personal and organizational characteristics associated with employee motivation.

The Mediating Role of Motivation

Previous studies have examined commitment (Temminck, Mearns, & Fruhen, 2015) as a mediator of work climate and PEB. However, findings so far have failed to guide research or practice in this area. For example, Raineri and Paillé (2016, p. 136) operationalized commitment as a "sense of attachment and responsibility to environmental concerns in the workplace". The study found there was a positive relationship between pro-environmental climate and employees' environmental commitment ($r = .11$) and much stronger effects by supervisor support for employee PEB on employees' environmental commitment ($r = .40$). The study also examined employees' pro-environmental beliefs as a moderator of the relationship between pro-environmental climate and commitment; however, significant relationships were

found only for weak and not strong pro-environmental beliefs. An influential review on employee engagement (Macey & Schneider, 2008) might shed some light on these effects. Commitment generally refers to a “psychological state of attachment or binding force between an individual and the organization” (p. 8). Most studies measure the “psychological state of commitment and are not descriptions of the conditions that might yield that condition” (p. 8) nor explain commitment as an energizing force. The SDT framework, on the other hand, can explain why different types of motivation energize activity in different ways and it describes specific conditions that can generate different types of motivation.

SDT’s concept of autonomous (versus controlled) motivation reflects the reasons why individuals engage in a particular activity. A recent model for work climate and employee PEB shows these two types of motivation as mediators of relationships between both person and context factors and PEB (Norton et al., 2015). The model suggests that researchers and practitioners should distinguish between “have to” and “want to” for understanding these effects on employee PEB (p. 104). SDT specifies how contextual factors are likely to influence motivation and previous research has shown, for example, that workplace rewards, deadlines, or positive feedback can be experienced as either autonomy-supportive or controlling depending on the interpersonal context (Deci, Connell, & Ryan, 1989).

Motivational processes involving autonomous and controlled motivation as well as intrinsic need satisfaction have been the focus of workplace research, as reviewed by Gagné (2005) and Deci and Ryan (2015). Studies have shown, for example, that intrinsic need satisfaction mediates relationships between workplace engagement and both personal characteristics (Vansteenkiste et al., 2007) and job characteristics (Van den Broeck et al., 2008). Specifically, Van den Broeck et al. (2008) found that the perception of job resources positively predicted employees’ intrinsic need satisfaction which, in turn, predicted higher levels of vigour. In contrast, perception of job demands negatively predicted intrinsic need satisfaction which, in turn, predicted higher levels of exhaustion. Studies have shown that a higher level of autonomous motivation, relative to controlled motivation, is positively associated with workplace engagement (Gillet et al., 2013). Only a few

SDT studies have examined pro-environmental activity. In most of these studies, with the exception of Graves, Sarkis, and Zhu (2013), motivation was examined as an antecedent of PEB. Nevertheless, studies have provided some evidence that autonomous motivation might be a stronger predictor of workplace PEB than controlled motivation (Graves, Sarkis, & Gold, 2019; Graves et al., 2013). Additionally, SDT studies outside the workplace have shown that autonomously motivated people reported engaging in a broader range of PEBs, more difficult PEBs, as well as experiencing sustained engagement (Green-Demers, Pelletier, & Menard, 1997).

Work Climate and Pro-Environmental Behavior

Prominent reviews have suggested that work climate might be an important predictor of employee motivation and PEB (Norton, Zacher, Parker, & Ashkanasy, 2015; Pelletier & Aitken, 2014). These reviews call for a more systematic and comprehensive understanding of what drives employee PEB, providing the incentive for further investigation.

Previous studies examining the relationship between work climate and employee PEB have predominantly focussed on workplace PEB that is associated with a pro-environmental climate. Previous research has examined, for example, pro-environmental policy (Norton et al., 2014), environmental leadership (Graves et al., 2019) and training (Cantor, Morrow, & Montabon, 2012), and incentives for engaging in PEB (Tam & Tam, 2008). Relationships between work climate and employee PEB vary substantially within and between studies. In one study, for instance, employees' task-related PEB was significantly higher for participants who perceived the presence of a pro-environmental policy compared to participants who perceived no policy, whereas proactive PEB was not influenced by perception of a pro-environmental policy. Both of the effects were fully mediated by perception of the organization as green (i.e., awareness of the policy), and this was explained as two types of behavioral norms operating independently to inform PEB (Norton et al., 2014). A separate study examined the PEB of workers in hotels in Thailand, in which pro-environmental climate was assessed in terms of policy, training, and

incentives, and the hotels were categorized as green and non-green (Kim, Kim, Choi, & Phetvaroon, 2019). The study found that a strong pro-environmental climate was associated with higher levels of PEB in non-green but not green hotels. The researchers attributed the unexpected finding to differences in infrastructure for waste and water management in the two types of hotels, and higher scores for PEB was interpreted as employees needing to work harder at being green in non-green hotels. Similarly, a study involving a sample of employees from six environmentally proactive companies examined PEB associated with 13 pro-environmental policies (Ramus & Steger, 2000). The researchers found that PEB was directly and significantly associated with only two of the 13 policies, and the association with one of the two policies (fossil fuels reduction) was in a negative direction. Ramus and Steger (2000) concluded that most of the relationships between the companies' pro-environmental policies and employee PEB might be indirect (i.e., explained by a mediating variable), or conditional (i.e., dependent on a moderating variable).

Previous studies provide some evidence that supervisory support, together with pro-environmental policies, might positively influence PEB (Paillé, Boiral, & Chen, 2013; Ramus & Steger, 2000). Supervisor support as a predictor of PEB has been assessed as support for employees' work tasks (Paillé et al., 2013) and PEB (Cantor et al., 2012). Some studies have found supervisor support to be an important predictor of workplace PEB (Cantor et al., 2012), whereas, in other studies, supervisor support was only weakly associated with PEB (Paillé et al., 2013). Ramus and Steger (2000) examined PEB associated with supervisor support for work tasks and PEB. Descriptive statistics showed that employees perceived that their supervisors used more supportive behaviors in relation to their work tasks than for their PEB. As noted by the researchers, the most frequently selected response, across all six items assessing support for PEB, was that the supervisor "neither encourages or discourages" the employee's PEB. Ramus and Steger (2000) also examined interactions between 13 pro-environmental policy variables and 12 supervisory support variables (six for work tasks and six for PEB) to determine whether their effects on PEB were additive or substitutive. They found that the 25 variables together were more significant than the supervisory behaviors alone or the environmental policies alone.

According to (Ramus & Steger, 2000, p. 621), these findings demonstrated that “clearly, policies and supervisory behaviors were not pure substitutes”. Raineri and Paillé (2016) examined the direct effect of supervisor support on employee PEB and the indirect effect through employees’ environmental commitment. Their study found that, compared with the direct effect, the indirect effect was about twice as strong. They also examined the same indirect effect with environmental policy as the independent variable. Non-overlapping confidence intervals for the mediation coefficients for environmental policy and supervisor support lend support to the finding by Ramus and Steger (2000) that pro-environmental policy and supervisory support are probably complementary, as opposed to reflecting the same underlying process. From these findings, it appears that different processes drive PEB associated with interpersonal supervisor support and organizational directives. The study by Raineri and Paillé (2016) also found that ecological worldview did not moderate the relationships between employees’ environmental commitment and either pro-environmental policy or supervisors’ environmental support. Specifically, relationships between strong policies and high levels of supervisor support for PEB, and higher levels of environmental commitment, held only for individuals with weak environmental concern. The types of motivation, as defined by SDT, provide a useful theoretical lens for disentangling these effects and understanding inconsistencies in previous research on work climate and employee PEB.

Based on the literature examining SDT and work climate, we hypothesize that the effects of pro-environmental climate on the level of both autonomous and controlled motivation for PEB will depend on the extent to which organizations support their workers’ autonomy. Specifically, we predict that organizations with strong pro-environmental climates, and a high level of employee autonomy support, will produce employees with higher levels of autonomous PEB motivation, which, in turn, will increase the likelihood they will engage in PEB both inside and also outside the workplace. We also predict that organizations with strong pro-environmental climates, but lower employee autonomy support, will produce employees with increased controlled motivation which will lead to more workplace PEB, but that PEB will not spillover to other non-workplace contexts.

Pro-Environmental Work Climate and Worker Engagement

Pro-environmental policies and procedures reflect organizational values for protecting the environment. Previous research has linked pro-environmental climates not only with employee PEB (Norton et al., 2014), but also with job satisfaction (Spanjol, Tam, & Tam, 2015) and organization commitment (Tilleman, 2012). However, it is not yet known how a pro-environmental climate might influence employees' intrinsic need satisfaction and workplace engagement or whether all employees are likely to respond in the same way.

Previous research on positive work climates – characterized as those that reflect a commitment to corporate responsibility - have suggested that there is a direct and positive relationship between a positive work climate and employee engagement (Simons & Roberson, 2003). Whereas, other studies suggest that the level of employee engagement depends on the personal characteristics of individual employees, as reviewed by Kuenzi and Schminke (2005). In one study, for example, the effect of ethical work climates on employee job attitudes varied as a function of employees' level of moral development (Ambrose, Arnaud, & Schminke, 2008). Studies examining the relationship between PO fit and workplace engagement have shown that perception of a stronger fit is positively associated with job satisfaction and organization commitment, as reviewed by Kristof-Brown et al. (2005). A study by Greguras et al., 2009 found that intrinsic need satisfaction mediates the relationship between perception of PO fit and worker engagement. A recent meta-analysis of 99 workplace studies on intrinsic need satisfaction found that PO fit was positively associated with employees' intrinsic need satisfaction, and higher need satisfaction was positively associated with workplace engagement (Van den Broeck et al., 2016). As yet unexamined is the process through which GPO fit and intrinsic need satisfaction influence workplace engagement.

Study 2 investigates the effect of high GPO fit on employees' intrinsic need satisfaction and engagement in the workplace. We approached this study by first considering whether a strong pro-environmental work climate increases employee motivation and engagement on its own, independently of GPO fit. Second, we also

examined the effect of high GPO fit on motivation and engagement. Finally, we explored whether need satisfaction mediates the effect of high GPO fit on employee engagement. Informed by the literature on work climate, PO fit, and SDT, we propose that employees in organizations with strong pro-environmental climates will report higher levels of intrinsic need satisfaction and work and job engagement. In addition, we expect that the magnitude of the effects of pro-environmental work climate on need satisfaction and engagement will be stronger for employees with pro-environmental value orientations than for those who are less strongly inclined towards conserving the environment. Finally, we predict that need satisfaction will mediate the effect of pro-environmental work climate on engagement, and this mediation effect will be stronger when GPO fit is high than when GPO fit is low.

Workplace Attributes and Job Seekers' Perceptions of Organization

Attractiveness

To date, two meta-analyses have summarized much of the research on workplace attributes and organization attractiveness (Chapman et al., 2005; Uggerslev, Fassina, & Kraichy, 2012). The review conducted by Chapman et al. (2005) found that work environment and organization image (i.e., reputation) were much stronger predictors of perceived organization attractiveness than job characteristics such as pay and promotion. The review by Uggerslev et al. (2012) also found that organization image was a stronger predictor of perceived organization attractiveness than pay and promotion opportunity. However, the researchers also found statistically significant Q coefficients for most of the predictors in each of the reviews. That is, the effects of specific workplace attributes on perceived organization attractiveness varied significantly across studies, with different studies often identifying different workplace attributes as the primary drivers of participants' perceptions of organizational attractiveness. These findings indicate that perceived attractiveness depends on other factors in addition to organization attributes. Previous studies have examined whether PO fit (Kristof, 1996) can provide an explanation for why some attributes are attractive to some individuals but not to others. In one study, for instance, Cable and Judge (1994) found that job seekers with stronger materialist values were particularly attracted by

high pay levels, whereas those with collectivist values were more opposed to pay systems that rewarded individual as opposed to group performance.

Previous research indicates that job seekers find pro-environmental work climates attractive (Backhaus, Stone, & Heiner, 2002). One study that used a policy capturing methodology (Cooksey, 1996) found that compared with other organization attributes such as pay and promotional opportunity, pro-environmental climate was the strongest predictor of organizational attractiveness (Aiman-Smith, Bauer, & Cable, 2001). A study by Greening and Turban (2000) examined not only the attractiveness of pro-environmental climate but also whether personal environmental values moderated participants' attractiveness judgements. They found that pro-environmental climate was indeed attractive, but there was no evidence of interaction effects with participants' environmental values.

In Study 3 of this thesis, we examine whether the relationships between organization attributes and attractiveness decisions vary systematically as a function of participants' pre-existing self-transcendent and self-enhancement values. Self-transcendent values "emphasize concern for the welfare and interests of others", whereas, self-enhancement value types prioritize achievement and power (Schwartz, 2012, p. 8). A recent study found that stakeholders who scored higher on self-transcendence were more willing to trade-off personal material benefits to secure improved conditions for suppliers from developing nations. In contrast, stakeholders with stronger self-enhancement values were more attracted to firms that favored their own in-group (Bridoux, Stofberg, & Den Hartog, 2016).

Informed by the literature on positive work climates (Kuenzi & Schminke, 2009), PO fit (Kristof, 1996; Kristof-Brown et al., 2005), and organization attractiveness in recruitment (Chapman et al., 2005; Uggerslev et al., 2012), we predict that organizations that support positive workplace outcomes related to economic, development, interest, social, application, and environmental values will be judged as more attractive than organizations that do not support these values. Informed by the effect sizes presented in these meta-analyses, we predict that organization support for positive employee relations (social value) will be a

particularly strong driver of attractiveness, and challenging and interesting work (interest value), personal and career development (development value), and pay and promotion opportunities (economic value) will be reliable, though relatively weaker, predictors of attractiveness. Given that previous research has found that the attractiveness of organizational support for positive customer and societal outcomes was higher than for advancement and compensation (Greening & Turban, 2000), and that the attractiveness of positive environmental outcomes was higher than for pay and promotions (Aiman-Smith et al., 2001), we predict the attractiveness of both application value and environmental value will be relatively stronger than for economic value, interest value, and development value.

PO fit theory and research informs our prediction that job seekers' self-transcendent and self-enhancement values will moderate the predictive effects of workplace attributes on perceived attractiveness. Specifically, organizations with a strong commitment to supporting social, application, and environmental outcomes will be perceived as more attractive by job seekers with stronger self-transcendent values relative to those with weaker self-transcendent values. Organizations committed to supporting positive economic, interest, and development outcomes will be perceived as more attractive to job seekers with stronger self-enhancement values relative to those with weaker self-enhancement values.

Methods

Employee motivation, workplace engagement and employee PEB have been shown to be influenced by both personal and organizational characteristics (e.g., Deci & Ryan, 2015; Gagné & Deci, 2005; Norton et al., 2015). Therefore, it is important for research methods to capture variability associated with features both of the organizations and the workers they employ. Work-related motivation and engagement are examined in the three empirical studies in this thesis using self-reported data provided by individuals recruited from non-probability samples. The data for Study 1 and Study 2 were collected from the same sample. A correlational research design is used in each of the studies.

Moderated mediation analysis was used to examine relationships between work climate, employee motivation, and PEB inside and outside the workplace (Study 1), and between pro-environmental work climate, intrinsic need satisfaction, and workplace engagement (Study 2). Moderated mediation analysis tests for significant indirect effects between independent and dependent variables at three levels of a moderating variable (Hayes, 2018). For instance, in Study 1, we used moderated mediation to examine whether relationships between a strong pro-environmental climate and higher levels of employee motivation for PEB varied as a function of the level of autonomy support provided by supervisors. Any indirect (moderation) effects found are then examined at low, moderate, and high levels of the moderator (i.e., employee autonomy support). An additional analysis also shows the regions of significance on the 7-point scale we used to assess autonomy support. The scale shows the upper and lower boundaries at which the effects of pro-environmental climate on employee motivation becomes non-significant. We also examined indirect (mediation) effects between pro-environmental climate and employee PEB through employees' motivation for PEB, and this is also shown at low, moderate, and high levels of employee autonomy support.

In Study 3, we used a policy capturing methodology and multi-level modelling with a sample of Australian job seekers to test our hypotheses. Policy capturing is used in applied psychology to investigate the relationships between a person's decision and the information used to make that decision (Cooksey, 1996). We used policy capturing to capture within-person differences in perceptions of the attractiveness of organizational attributes. We assessed within-person differences by giving participants, via an online survey, a random subset of eight of 64 possible descriptions of organizations. Each description presented an organization that scored either high or low on six attributes based on the EAS (Berthon, 2005). Participants rated the attractiveness of each hypothetical organization by answering five questions including: "This would be a good company to work for" and "I would actively pursue obtaining a position with this company", and "I would accept a job offer from this company". All responses were measured using a 7-point scale (1 = *very unlikely*, 7 = *very likely*). We assessed the participants' self-transcendence and self-enhancement values using the most recent version of the Portrait Values

Questionnaire (Schwartz et al., 2012). Then we used multilevel modelling to examine within-person (Level 1) differences in attractiveness perceptions as well as between-person (Level 2) differences in ratings of attractiveness that was attributable to differences in personal values.

In the Level 1 analysis, we computed coefficients for the attractiveness of each predictor (i.e., the six organization attributes) by re-running the analysis six times, once for each predictor. In the analysis, all predictors were fixed (i.e., grand mean centered) other than the one being tested, enabling us to assess the relationships among the six predictors for each participant. In the Level 2 analysis, the intercepts and beta coefficients from the Level 1 analysis were regressed on participants' scores on self-transcendence and self-enhancement values. We were then able to assess whether relationships between the organization attributes and participants' attractiveness decisions varied systematically as a function of pre-existing personal values.

Thesis Overview

This thesis by publication presents three separate studies that were conducted during my PhD candidature. Two of the articles have been published in peer-reviewed journals, and the third article will be submitted to peer-reviewed journals. Each article is presented as a separate chapter in the thesis. Each chapter begins with a brief description to clarify the logic of the research progression, beginning with Figure 1.1 below.

This program of research has two main objectives. The first is to investigate the potential impacts of work climate on employee motivation, workplace engagement, and PEB. The second objective is to examine how personal values and organizational values interact and show the specific work environments in which higher levels of motivation and engagement are most likely. More specifically, drawing on SDT (Deci & Ryan, 2000) and PO fit theory (Kristof, 1996) this thesis aims to:

1. Investigate the potential impact of two aspects of work climate (i.e., pro-

environmental climate and employee autonomy support) on employees' autonomous and controlled motivation for engaging in PEB, and explore the extent to which these two types of motivation predict employees' workplace and non-workplace PEB.

2. Examine relationships between GPO fit, employee motivation, and workplace engagement. Determine whether the presence of a pro-environmental climate predicts motivation and engagement on its own or if relationships depend on employees' pro-environmental values.
3. Using a policy capturing methodology, determine which workplace attributes are the strongest predictors of organization attractiveness and whether relationships between organization attributes and attractiveness decisions vary systematically as a function of pre-existing personal values.

The first empirical study (Study 1, Chapter 2) investigates work climate and employee PEB through two types of motivation for engaging in PEB. This study aims to address questions such as what drives employee PEB in a pro-environmental work climate and what an organization can do to increase employee PEB. A central aim of this study is to assess whether workplaces that support high levels of autonomous motivation for PEB might not only foster high levels of workplace PEB but also lead to positive spillover effects by increasing non-workplace PEB.

The second empirical study (Study 2, Chapter 3) investigates whether a strong pro-environmental work climate increases employee motivation and engagement on its own, independently of GPO fit. Additionally, this study examines the effect of high GPO fit on motivation and engagement, and whether need satisfaction mediates the effect of high GPO fit on engagement. Overall, this study examines whether a pro-environmental climate might be good for business by increasing workplace engagement.

The third empirical study (Study 3, Chapter 4) assesses whether certain types of work environments would be perceived as more attractive, depending on participants' values. Essentially, this study investigates whether the 'ideal'

organization exists or if different workplace attributes attract different people. This study also investigates whether the EAS (Berton et al., 2005) should be expanded to include corporate environmental responsibility as a sixth value dimension.

The General Discussion (Chapter 5) provides a summary of the key conclusions from the three empirical studies presented in this thesis, including theoretical and practical implications, strengths and limitations of the current research, and directions for future research.

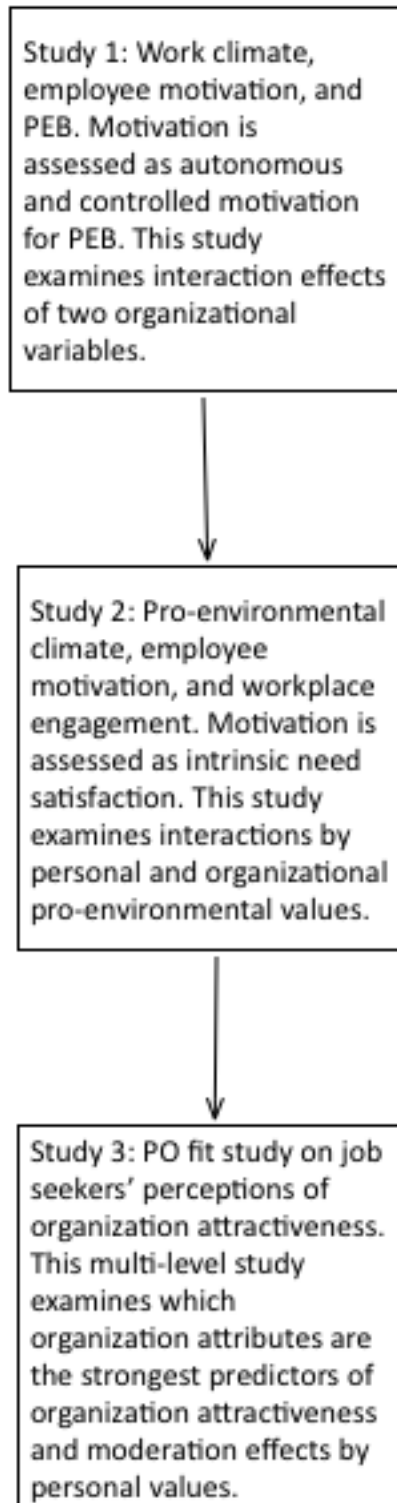


Figure 1.1 Overall flow of the thesis. The three studies are briefly described and the logical progression between each study is shown with arrows.

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Chapter 2

Study 1

Can work climate foster pro-environmental behavior inside and outside of the workplace?

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Abstract

Guided by self-determination theory, we investigated the potential impact of work climate on employee motivation, and pro-environmental behavior (PEB) inside and outside of the workplace. We found that in workplaces with stronger pro-environmental climates and at least moderate levels of autonomy support, employees reported higher levels of autonomous motivation to engage in PEB. In turn, autonomously motivated employees engaged in more PEBs, both inside and outside the workplace. Controlled motivation played a more limited role in predicting employee PEBs. Overall, our findings suggest work climates that support pro-environmental actions and employee autonomy may not only foster PEBs within the workplace but also lay the foundation for PEBs in other non-workplace settings.

Introduction

Organizations are increasingly adopting pro-environmental policies and procedures. Annual reporting on environmental management and carbon emission reduction, by the largest companies based on revenue, increased from 44% in 2011 to 78% in 2017, and from 58% in 2015 to 67% in 2017, respectively (KPMG, 2018). Regardless of whether these shifts were driven primarily by regulatory pressure, a desire for cost savings, or reputation concerns, it is important to recognize that the successful implementation of “green” policies and procedures in corporate environments requires not only pronounced pro- environmental work climates but also the cooperation of individual employees.

Work climate involves employees’ perceptions of the organization’s environment and its priorities. Although there is growing evidence that pro-environmental work climate may be an important driver of employee pro-environmental behavior (PEB), the precise mechanisms by which climate exerts its effects remain unclear. One promising avenue of research involves investigating how work climate influences employee motivation for engaging in PEB (Norton, Zacher, & Ashkanasy, 2014). In this study, we used self-determination theory (SDT) to investigate the potential effects of employees’ perceptions of two types of work climate on employees’ motivation to engage in PEB: (1) the extent to which organizations actively encourage pro-environmental outcomes through their policies, processes, and practices (pro-environmental climate), and (2) the extent to which they support employees’ autonomy for work tasks (autonomy support). We also explored the role of employees’ autonomous and controlled motivation for PEB as mediators of relationships between work climate and PEB. Finally, we explored whether certain types of work climate can elicit employee motivational patterns that are conducive to positive spillover effects, in which employees also engage in PEBs outside the workplace.

Self-Determination Theory

According to SDT, humans are “naturally inclined to act on their inner and outer environments, engage in activities that interest them, and move toward

personal and interpersonal coherence” (Deci & Ryan, 2000). SDT distinguishes between two types of motivation: intrinsic and extrinsic. Intrinsic motivation is fully autonomous. Intrinsically motivated activities are done because they are interesting or enjoyable in themselves. In contrast, extrinsic motivation regulates activities done as a means to an end. SDT specifies four main types of extrinsic motivation that vary based on whether the source of the regulation of a behavior is more or less internalized, that is self-regulated (Deci & Ryan, 2000).

1. *External regulation* is the most controlled form of extrinsic motivation. It occurs when behavior is “regulated by others’ administration of contingencies” (Deci & Ryan, 2000). For example, in the context of a proactive pro-environmental organization, external regulation could arise if employees feel that bonuses or promotion depend on complying with the company’s waste reduction policies and procedures.
2. *Introjected regulation* is a controlled form of internal regulation. This form of control is manifested via individuals being motivated to act out of feelings of pressure from the self which then results in a sense of obligation to do a given behavior (Deci & Ryan, 2000). For example, some employees may comply with waste reduction policies to avoid feeling guilty rather than being guided by any expectation that they would be rewarded for complying or punished for not complying.
3. *Identified regulation* occurs when people recognize and accept the underlying value of a behavior, but have not yet fully integrated the behavior with other aspects of their identity (Deci & Ryan, 2000). This might occur when employees believe, in general, that it is important to minimize waste, and, as a consequence, use the recycling bins at work most of the time. But there are still instances, such as when recycling bins are not easily accessible, that they will not engage in the behavior.
4. *Integrated regulation* is considered the most complete expression of internalized extrinsic motivation given that it involves not only identifying with the importance of behaviors, but also ensuring those identifications

become integrated with other aspects of the self (Deci & Ryan, 2000). Employees guided by integrated regulation view their own environmentally friendly actions as a core part of their identity.

SDT scholars often group intrinsic motivation with integrated regulation and identified regulation into a general category labelled *autonomous motivation*, given that all three types of motivation involve a high degree of internalization and volition. Similarly, introjected regulation and external regulation are often combined into a general category called *controlled motivation*, given that behavior is regulated by consequences administered by others (e.g., external rewards such as bonuses) or by individuals to themselves (e.g., feelings of guilt).

Pro-Environmental Climate and Employee PEB Motivation

Work climate refers to policies, practices, and procedures that guide employee behavior by indicating an organization's priorities. Whereas, work *culture* reflects the broad assumptions and values of an organization, work *climate* reflects more tangible aspects of working environments such as specific policies, processes, and practices (Schneider, Ehrhart, & Macey, 2013). In the current study, pro-environmental climate is assessed via individual employees' perceptions of the extent to which their organization acts to protect the environment. This is a form of psychological climate (James et al., 2008).

Most organizations have multiple work climates that operate simultaneously and help employees, motivated to succeed, to understand which behaviors they are expected to perform and why (Zohar & Luria, 2005). For example, a strong safety climate has been associated with fewer work accidents and a strong service climate with higher customer satisfaction (Kuenzi & Schminke, 2009). Similarly, research suggests that organizations with strong pro-environmental work climates report higher rates of employee PEB (Norton, Parker, Zacher, & Ashkanasy, 2015). For example, Kim et al. found that employees engaged in more PEB when they perceived that environmental management was integrated with HR processes such as training and performance appraisals (Kim, Kim, Choi, & Phetvaroon, 2019). Ruepert

et al. demonstrated how workplaces with pro-environmental climates can activate social norms that encourage workers to engage in PEB (Ruepert, Steg, & Keizer, 2015). In addition, Norton et al. reported that employees engaged in more PEB when they considered their organization to be committed to pro-environmental practices and also when they saw their colleagues engaging in PEB (Norton et al., 2014).

Autonomy Support and Employee Motivation

Research indicates that social contexts can function to either support autonomy or control behavior (Deci, Connell, & Ryan, 1989). Higher levels of autonomy support, relative to more controlling work environments, have been linked to a range of positive outcomes including task engagement, creativity, and behavior change (Deci & Ryan, 2015). Pelletier and Aitken (2014) noted that most policies - whether originating from government or from companies themselves - represent explicit attempts to control behavior and, as such, may sometimes be counterproductive in the long run if they too strongly reinforce controlled, as opposed to autonomous, motivation. Generally, controlled motivation is associated with unstable behavior change because individuals have not internalized the regulations controlling the behavior. For example, when workplace PEB is reinforced by an organization's employee recognition program, the target behaviors typically last only as long as the intervention. When the contingencies supporting policy adherence are removed, behavior reverts back to a more heterogeneous non-constrained state. In other words, when policymakers adopt policies that rely on reward and punishment (producing controlled motivation), they are also undertaking a long-term commitment of policing behavior which can be both inefficient and time-consuming.

It is worth noting that workplace rewards, deadlines, or positive feedback can be experienced as either autonomy supportive or controlling depending on the interpersonal context (Deci et al., 1989). Interpersonal conditions that offer choice, explain reasons behind demands and rules, are aware of people's feelings, and accept other points of view are more likely to generate autonomous motivation for a task by supporting individuals to explore issues and options for themselves and to choose to

act in ways that are personally meaningful. SDT studies found employees in work environments with high levels of autonomy support report higher levels of autonomous motivation for work and higher levels of work satisfaction (Gillet, Gagné, Sauvagère, & Fouquereau, 2013). Furthermore, training managers to be more autonomy supportive produces a range of positive work-related employee attitudes such as trust in the corporation and management (Deci et al., 1989).

Autonomous and Controlled Motivation and PEB

SDT workplace studies have shown that employees' reasons for putting effort into their jobs predicts workplace performance (Deci & Ryan, 2015). Specifically, employees who report doing their job because it is enjoyable or because it aligns with their interests and values (i.e., autonomous motivation) tend to be more proficient and adaptive in their jobs, often expending extra time and effort at work. On the other hand, employees who report doing their job to make a lot of money, or because their reputation depends on it (i.e., controlled motivation) are more likely to exhibit diminished vitality at work, feel less able to cope with workplace change, and put less effort into their jobs (Deci & Ryan, 2015).

SDT studies outside the workplace have also shown that autonomous motivation is a positive predictor of PEB. Pelletier et al. found that autonomously motivated people reported engaging in a broader range of PEBs, more difficult PEBs, and sustained engagement in PEBs (Pelletier, Green-Demers, & Menard, 1997). Pelletier et al. found respondents engaged more frequently in a broad range of PEBs if they found the PEB pleasurable (intrinsic motivation), believed the PEB was a fundamental part of who they are (integrated regulation), or they believed the PEB was an important or sensible thing to do (identified regulation). In contrast, high levels of controlled motivation only weakly predicted PEB frequency; in some instances, opposite to the expected direction (Pelletier, Tuson, Green-Demers, Noels, & Beaton, 1998).

In a study investigating intended effort and attainment of personal goals, Sheldon et al. found that participants who pursued their personal goals for autonomous reasons were more likely to report that they were still investing effort in

their goals 8 and 15 weeks later. They also reported higher levels of goal attainment (Sheldon & Elliot, 1998). In contrast, participants who described their goals as being controlled by internal pressure (e.g., guilt) or external pressure (e.g., desire for recognition) reported diminishing motivation over time and less goal attainment (Sheldon & Elliot, 1998). According to Koestner et al. autonomous goals are “protected and maintained in the face of task-irrelevant temptations because they are continually energized” by the self (Koestner, Lekes, Powers, & Chicoine, 2002). Overall, these studies support the conclusion that individuals with increased autonomous PEB motivation engage in more PEB.

Spillover to Non-Workplace PEB

In a recent review of the literature, Truelove et al. proposed a framework for when PEB spillover effects are most likely to occur and not occur (Truelove, Carrico, Weber, Raimi, & Vandenberg, 2014). The framework suggests that spillover from a role-related behavior is most likely to occur when: (1) PEB is internally (as opposed to externally) motivated, (2) the behaviors in the primary and spillover domains are similar to each other, and (3) the spillover behaviors are relatively easy to perform. Of particular relevance to the present study is the internalization of motivation for workplace behaviors. According to SDT, internalization is an active and natural process of socialization in which individuals attempt to transform external regulations into personally endorsed values and self-regulations (Deci & Ryan, 2000). As such, changes in the quality of a person’s motivation may explain positive spillover effects to other contexts.

The Current Study

This study investigated the potential impact of two aspects of work climate (i.e., pro- environmental climate and employee autonomy support) on employees’ autonomous and controlled motivation for engaging in PEB. The study also explored the extent to which these two types of motivation predicted employee PEB both inside and outside of the workplace. Based on our review of the literature, we predicted that in organizations with strong pro-environmental climates and strong support for worker autonomy, employees would report higher levels of autonomous

motivation to engage in PEB. In turn, we expected employees with higher levels of autonomous PEB motivation would be more likely to engage in more PEB both inside and outside the workplace. We also predicted that in organizations with strong pro-environmental climates but low autonomy support, employees would report higher levels of controlled PEB motivation. In turn, employees with higher controlled motivation for PEB were expected to engage in more workplace, but not non-workplace, PEB. That is, we expected autonomous motivation for PEB to produce spillover effects outside of the workplace, whereas we expected controlled motivation for PEB to guide workplace behavior only, and not spillover to other contexts.

Methods

Participants

A sample of 818 Australian adults participated in this study. All were employed full time when they completed the survey. Participants were recruited from a Qualtrics™ research panel, and received a small monetary payment for completing the survey. Women accounted for just over half the sample (52%). Ages ranged from 18 to 69 years: 18-24 (8%), 25-34 (35%), 35-44 (29%), 45-54 (16%), 55-64 (11%), and 65+ years (<1%). The sample included a range of education levels: less than year 10 (<1%), year 10 high school (5%), year 12 high school (15%), vocational education training certificate (17%), diploma or advanced diploma (14%), graduate diploma or bachelor degree (34%), postgraduate university degree (15%). The survey was developed using the Qualtrics™ online survey platform (Provo, UT). The project was reviewed and approved by the University of New England (UNE) Human Research Ethics Committee.

Measures

The survey consisted of measures assessing employee perceptions of workplace pro- environmental climate and autonomy support, motivations to engage in PEB, and frequency of workplace and non-workplace PEB. The survey also

included measures of employee pro- environmental attitude, need satisfaction, work withdrawal, and job satisfaction, which were used for a separate study.

Work Climate

Two aspects of work climate were assessed: pro-environmental climate and employee autonomy support. Employees' perceptions of their organizations' commitment to positive environmental outcomes (i.e., pro-environmental climate) were assessed using the Green Work Climate Perceptions Scale (Norton et al., 2015). The scale comprised four items, including: "Our company is worried about its environmental impact" and "Our company believes it is important to protect the environment". Participants indicated their agreement with each statement on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach's alpha for the scale was .92, indicating high internal consistency.

Employee autonomy support was assessed using the Perceived Autonomy Support Scale (Deci & Ryan, 2015; Gillet et al., 2013; Moreau & Mageau, 2012). This 9-item scale measures employees' perceptions that their supervisors (i.e., immediate line managers, superiors, or more experienced professionals in a supervisory role) encourage their self-determination and autonomy within the workplace by offering choice (e.g., "My supervisors give me many opportunities to make decisions in my work"), explaining reasons behind demands and rules (e.g., "When my supervisors ask me to do something, they explain why they want me to do it"), and acknowledging their feelings (e.g., "My supervisors are open to my opinions and my point of view regarding work even when they are different from theirs"). All responses were measured using a 7-point scale (1 = *do not agree at all*, 7 = *very strongly agree*). Cronbach's alpha for the scale was .94.

Motivations for Pro-Environmental Behavior

Employees' motivations for engaging in PEB were assessed by two subscales of the Motivation Toward the Environment Scale (Pelletier et al., 1998). Autonomous motivation was assessed by 12 items addressing intrinsic or more internalized reasons individuals may have for engaging in PEB. Four items each that

reflect intrinsic motivation (e.g., “For the pleasure I experience while I am mastering new ways of helping the environment”), integrated regulation (e.g., “Because being environmentally-conscious has become a fundamental part of who I am”), and identified regulation (e.g., “Because it is a sensible thing to do in order to improve the environment”). Controlled motivation was assessed by eight items addressing extrinsic reasons for engaging in PEB. Four items each that reflect introjected regulation (e.g., “Because I would feel guilty if I didn’t”) and external regulation (e.g., “To avoid being criticized”). Both subscales were measured on a 7-point scale (1 = *does not correspond at all*, 7 = *corresponds exactly*). Cronbach’s alpha was .94 for autonomous motivation and .79 for controlled motivation.

Workplace Pro-Environmental Behavior

Workplace PEB was assessed using a 20-item frequency measure (Blok, Wesselink, Studynka, & Kemp, 2015) describing behaviors that can be performed by participants in relation to their work (e.g., “I wear more clothes instead of putting the heating on”, “I print double-sided”, and “When I purchase goods or services, I pay attention to sustainability”). Minor changes were made to three items to better fit the Australian context. The original 6-point frequency scale ranged from 1 (*N/A*; not applicable) to 2 (*never*) through to 6 (*always*). In the current study, the scale was recoded as follows: N/A = (missing data), 1 = (*never*) to 5 = (*always*) to reflect that some of the activities, such as adjusting the office heating, were likely beyond the control of the participants. In the analysis, the mean was computed for each participant based only on the items within their control. Cronbach’s alpha for the scale was .86.

Non-Workplace Pro-Environmental Behavior

Non-workplace PEB was assessed with the 31-item Frequency of Conscious Environmental Behavior Scale (Pelletier, Hunsley, Green-Demers, & Legault, 1996). Participants indicated how often they engaged in activities (e.g., “Buy products that do not damage the environment” and “Recycle glass jars/bottles”) using a 7-point scale ranging from 1 (*never*), 4 (*about half the time*) to 7 (*always*). In addition, seven of the original items were modified to better reflect Australian terminology and

practices (e.g., “gasoline consumption” was changed to “petrol consumption”; “Reuse paper lunch or grocery bags” was changed to “Reuse shopping bags”). Contact the lead author for details. Cronbach’s alpha for the scale was .95.

Ecological Worldview

Ecological worldview was included as a covariate in all analyses to control for common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) and also the possibility that pre-existing differences in environmental orientation might confound the effects of pro-environmental work climate on motivation and PEB. Worldview was assessed using the revised New Ecological Paradigm (NEP) scale (Dunlap, Van Liere, Mertig, & Jones, 2000). The scale consisted of 15 items reflecting both environmental concern and beliefs that humans can dominate nature (e.g., “When humans interfere with nature it often produces disastrous consequences” and “Humans will eventually learn enough about how nature works to be able to control it”). Participants indicated the extent they agreed with each statement using a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). High NEP scores reflect environmental concern, defined as recognition that the earth’s carrying capacity is limited and that we are rapidly approaching these limits. Low NEP scores reflect an anthropocentric worldview, defined as believing that the earth’s resources should be exploited for human benefit and that our ingenuity as a species will enable us to overcome environmental problems as they arise. Cronbach’s alpha was .82.

Statistical Analyses

All statistical analyses were conducted using SPSS (Version 25). Mediation and moderation tests were conducted using the PROCESS macro (Hayes, 2018). To control for the large number of statistical tests computed, we adopted a conservative critical p -value of .01 and 99% confidence intervals. The survey used a forced response format, so there were no missing data. Examination of boxplots revealed a small number of univariate outliers on most of the variables included in the model, but no extreme scores. Eight multivariate outliers were identified, and the analyses were re-run with the outliers removed. Our analyses generated the same substantive

findings with outliers included and excluded.

Given that outliers are to be expected in large data sets, and there was no evidence to suggest they were invalid responses, we retained all cases for subsequent analyses reported in this paper.

Results

Descriptive Statistics and Preliminary Analyses

Means, standard deviations, and intercorrelations for the main variables assessed in the study are presented in Table 2.1. On average, participants reported that their organizations were moderately committed to pro-environmental outcomes and supporting employee autonomy, with means on both scales falling above the midpoint. For pro-environmental climate, 13% of respondents disagreed (below 2) and 25% of respondents agreed (above 4) on a 5-point scale, that their organization had pro-environmental policies and procedures reflecting a pro-environmental climate. The majority of respondents fell in the mid-level range. For provision of autonomy support, 4% of respondents disagreed (below 2) and 19% of respondents agreed (above 6) on a 7-point scale, that supervisors supported their autonomy in the workplace. On average, participants reported engaging in workplace PEB between “sometimes” and “often”, and in non-workplace PEB slightly more than “about half the time”. Examination of the correlation matrix revealed significant positive associations between (1) both work climate variables and autonomous and controlled motivation for PEB, and (2) between work climate and PEB both inside and outside the workplace. Furthermore, higher PEB motivation (both autonomous and controlled) was significantly associated with more workplace and non-workplace PEB; and the correlations between autonomous motivation and both PEBs were particularly strong. Overall, the pattern of associations suggested that both contextual factors (i.e., work climate) and individual factors (i.e., motivations) likely play a role in determining PEB inside and also outside the workplace.

Table 2.1 *Zero-Order Correlations and Descriptive Statistics. N = 818. ** p < .01.*

Variable	1	2	3	4	5	6	7
1. Pro-environmental climate	–						
2. Autonomy support	.40**	–					
3. Autonomous PEB motivation	.37**	.28**	–				
4. Controlled PEB motivation	.31**	.21**	.54**	–			
5. Workplace PEB	.33**	.21**	.57**	.25**	–		
6. Non-workplace PEB	.39**	.19**	.63**	.48**	.64**	–	
7. Ecological worldview	-.06	-.07	.27**	-.06	.26**	.16**	–
<i>Theoretical range for variables</i>	1-5	1-7	1-7	1-7	1-6	1-7	1-7
<i>Actual range for variables</i>	1-5	1-7	1-7	1-7	1-5	1-7	1-7
<i>Cronbach's alphas</i>	.92	.94	.94	.79	.86	.95	.82
<i>Mean</i>	3.46	4.93	4.89	3.87	3.55	4.30	4.87
<i>Standard deviation</i>	1.04	1.37	1.19	1.05	.64	1.13	.79

Moderated Mediation Analysis

Model 8 in the SPSS PROCESS macro (Hayes, 2018) was used to test whether: (1) employee autonomy support moderated the effect of pro-environmental climate on employees' autonomous and controlled motivation to engage in PEB, and (2) whether the effects of pro-environmental climate and autonomy support on workplace PEB and non-workplace PEB were mediated by employees' autonomous and controlled motivation. The analyses were conducted separately for workplace and non-workplace PEB. See Figure 2.1 for a summary of the results from both analyses.

Beginning on the left side of Figure 2.1, we first examined the effects of the two types of work climate (pro-environmental and autonomy support) and their interaction on respondents' autonomous and controlled motivation to engage in PEB. Both main effect variables were centered at 0 prior to computing the interaction. For autonomous motivation, the main effects for pro-environmental climate and autonomy support were statistically significant, with both predicting higher levels of autonomous motivation to engage in PEB. As predicted, we also found a significant pro-environmental climate by autonomy support interaction. Examination of the conditional effects for the interaction indicated that pro-environmental climate significantly predicted autonomous PEB motivation when autonomy support was

low (16th percentile, $B = .27$, $SE = .05$, 99% CI = .15 to .40), moderate (50th percentile, $B = .39$, $SE = .04$, 99% CI = .29 to .49), and high (84th percentile, $B = .48$, $SE = .05$, 99% CI = .35 to .61), but that the effects were strongest when autonomy support was high. To further probe the interaction, we conducted a Johnson-Neyman regions of significance analysis which indicated that the effect of pro-environmental climate on autonomous PEB motivation became nonsignificant when levels of autonomy support fell below 2.59 (on a 7- point scale). The results from the Johnson-Neyman analysis suggest that positive pro- environmental climate in itself may not be sufficient to generate autonomous motivation to engage in PEB. For autonomous PEB motivation to flourish, organizations must create work climates that support both pro-environmental activities and at least a minimal level of worker autonomy.

Next, we assessed the effects of pro-environmental climate and employee autonomy support on controlled motivation to engage in PEB. In this analysis, while the main effect for pro-environmental climate was strong and significant, the main effect for autonomy support was not. As expected, the climate by autonomy support interaction effect was not significant. Consistent with our prediction, this result suggests that employees' controlled motivation for workplace PEB is driven by the extent to which organizations have policies, protocols, and guidelines that support such initiatives. Other aspects of work climate, such as supporting worker autonomy, appear to be important for fostering an autonomously motivated workforce but have no impact on employees' controlled motivation for PEB.

Finally, we examined the extent that autonomous and controlled motivation for PEB mediated the impact of the work climate variables (pro-environmental climate and autonomy support) on workplace PEB and also non-workplace PEB (spillover). Once again referring to Figure 2.1, we find autonomous motivation for PEB significantly predicted workplace PEB, but controlled motivation did not. Examination of the tests for the indirect (mediation) effects of work climate on workplace PEB through autonomous motivation revealed significant effects at all three levels of autonomy support, with the effect sizes increasing in step with increases in autonomy support: 16th percentile ($B = .07$, $SE = .02$, 99% CI = .03 to

.12), 50th percentile ($B = .11, SE = .01, 99\% CI = .07 \text{ to } .15$), and 84th percentile ($B = .13, SE = .02, 99\% CI = .08 \text{ to } .19$). The indirect effects of the pro-environmental climate ($B = -.01, SE = .01, 99\% CI = -.03 \text{ to } .00$) and autonomy support ($B = -.003, SE = .002, 99\% CI = -.01 \text{ to } .00$) on workplace PEB through controlled motivation both failed to reach significance. Overall, this pattern of results indicates that: (1) autonomous PEB motivation is a much stronger predictor of workplace PEB than controlled PEB motivation, and (2) employees with the highest levels of autonomous PEB motivation are found in organizations with strong pro-environmental climates and provide at least moderate levels of support to encourage employee autonomy.

To assess spillover effects, we tested the same moderated mediation model as above, but replaced workplace PEB with non-workplace PEB as our dependent variable. Given that the effects of the two organizational climate variables on autonomous and controlled motivation were identical in both models, only the effects unique to the spillover analysis are discussed here.

Our spillover analysis indicated that both autonomous motivation and controlled motivation significantly predicted employee participation in non-workplace PEBs, although the effect for autonomous motivation was over twice as strong as it was for controlled motivation. Examining tests for the conditional indirect effects of the work climate variables (pro-environmental climate and employee autonomy support) on non-workplace PEB through autonomous PEB motivation, we found significant effects at all three levels of autonomy support. As was the case for workplace PEB, we found effect sizes increasing in line with increased autonomous motivation when autonomy support was low (16th percentile, $B = .11, SE = .03, 99\% CI = .04 \text{ to } .18$), moderate (50th percentile, $B = .16, SE = .02, 99\% CI = .11 \text{ to } .23$), and high (84th percentile, $B = .21, SE = .03, 99\% CI = .13 \text{ to } .29$). Through controlled motivation, pro-environmental climate had a significant indirect effect on non-workplace PEB ($B = .05, SE = .01, 99\% CI = .03 \text{ to } .09$). As expected, there was no indirect effect of autonomy support through controlled motivation on non-workplace PEB ($B = .01, SE = .01, 99\% CI = -.001 \text{ to } .02$). Overall, our spillover analyses indicated that the effects of work climate on PEB may extend beyond the workplace, driven primarily by autonomous motivation, with a

more limited role played by controlled motivation.

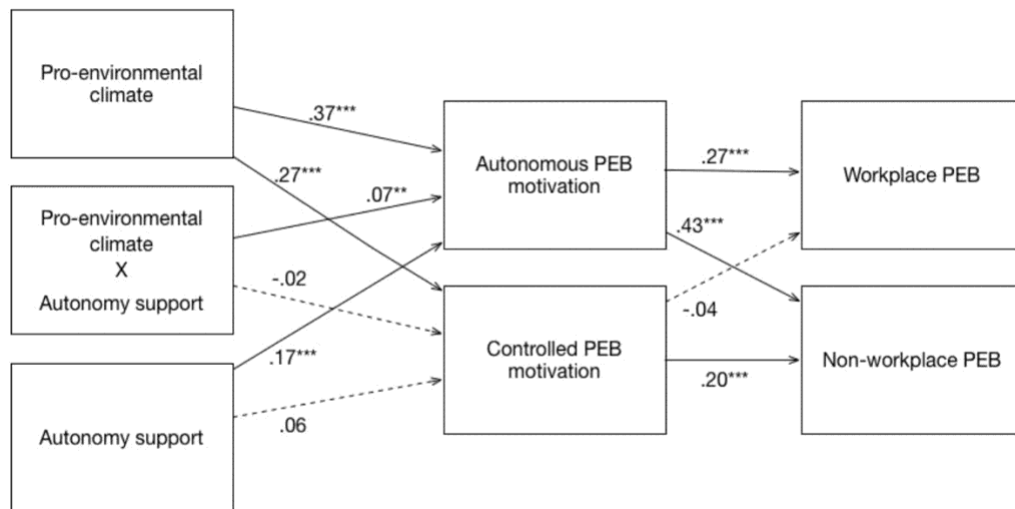


Figure 2.1 Moderated mediation model showing (1) autonomy support moderating the effects of pro-environmental climate on autonomous PEB motivation, and (2) autonomous PEB motivation mediating the effects of the work climate variables on workplace PEB and non-workplace PEB. Participants' ecological worldview, as assessed by the NEP, was included as a covariate in the model to control for common method bias, as well as any pre-existing differences in pro-environmental values and attitudes. Values on pathways represent unstandardized regression weights (** $p < .01$, *** $p < .001$). Model fit indices: $R = 0.60$, $R^2 = 0.36$, $F = 76.62$ *** for workplace PEB and $R = 0.68$, $R^2 = 0.46$, $F = 113.73$ *** for non-workplace PEB.

Discussion

This study investigated how two aspects of work climate (i.e., pro-environmental climate and employee autonomy support) might influence employees' motivation to engage in PEB. A central aim of the study was to assess whether workplaces with climates that support high levels of autonomous motivation for PEB might not only foster higher levels of workplace PEB, but also lead to positive spillover effects by increasing PEB outside of the workplace. We found that both workplace PEB and non-workplace PEB were higher in organizations with work climates that support both pro-environmental activity and worker autonomy, and that these climate effects could be partly explained by the extent to which workers in

such environments experienced increased autonomous and controlled motivation for engaging in PEB. These findings and their implications are discussed in more detail in the sections that follow.

Summary of Main Findings

Our results indicated that pro-environmental work climate predicted employee motivation, both autonomous and controlled, to engage in PEB. However, the nature of the effects varied depending on the level of autonomy provided by the organization. As hypothesized, employees working in organizations with stronger pro-environmental climates, irrespective of the level of autonomy support offered, reported higher levels of controlled PEB motivation. In contrast, employees reported higher levels of autonomous PEB motivation in organizations with strong pro-environmental climates and moderate to high levels of autonomy support. Overall, this pattern of motivational effects is consistent with the SDT model of employee motivation (Gagné & Deci, 2005). The combination of both pro-environmental climate and autonomy support were associated with increased autonomous motivation for PEB, whereas pro-environmental climate alone appeared to be sufficient for higher levels of controlled motivation to emerge.

We also found that employee motivation predicted workplace and non-workplace PEB in both expected and unexpected ways. As predicted, employees with higher autonomous PEB motivation engaged in more workplace PEB and also more non-workplace PEB. That is, we found a positive spillover effect to outside the workplace for workers who scored high on autonomous motivation for PEB. Consistent with SDT, employees working in organizations with strong pro-environmental climates and strong autonomy support reported higher levels of autonomous motivation and, in turn, reported engaging in more PEBs both inside and outside the workplace.

Counter to our hypotheses, higher levels of controlled motivation for PEB were associated with increased employee engagement in non-workplace PEB, but not workplace PEB. This finding runs opposite to the pattern we predicted. One

possible explanation for the non-significant effect of controlled motivation on workplace PEB is that most organizations have multiple work climates that operate simultaneously, and an employee's perception of a strong pro-environmental climate does not necessarily mean that PEB is an organization's highest priority (Zohar & Luria, 2005). Work climates stipulate the workplace behaviors that employees are expected to perform and clarify the specific behaviors that will be rewarded. As such, employees with controlled PEB motivation would be likely to engage in workplace PEB only in organizations that prioritize pro-environmental climate over other potential competing climates, such as those related to safety, service, or other outcomes that an organization may value.

A second possible explanation is methodological in nature. A review of the effects in the study revealed that the motivation variables were consistently stronger predictors of non-workplace PEB than workplace PEB. Examination of the items comprising the non-workplace and workplace PEB scales suggests that many of the workplace behaviors were likely more difficult to perform (e.g., recycling chemical office waste, using narrow margins on office documents, and pointing out co-workers un-ecological behavior) than the non-workplace ones (e.g., recycling newspapers and bottles, avoiding littering, and reusing plastic containers). In the presence of such difficulties, one would expect the predictive effects of motivation on workplace PEB to be smaller than the effects of motivation on non-workplace PEB, a pattern that is consistent with the correlations presented in Table 2.1. The correlations also reveal that controlled motivation was significantly correlated with both workplace and non-workplace PEB, and only when both motivational factors were entered together in the regression analysis did the effect of controlled motivation on workplace PEB become nonsignificant. Thus, it seems plausible that controlled motivation predicts both workplace and non-workplace PEBs, but that the workplace effects in this study were weaker due to the greater difficulty of the items. Future research should systematically explore the impact of item difficulty on the magnitude of motivational effects on PEB across different contexts.

Practical Implications

Our results indicate that autonomous PEB motivation is a much stronger predictor of workplace PEB than controlled PEB motivation. This highlights the importance of considering the reasons why employees engage in PEB when designing workplace interventions to increase PEB. We found that employees with the highest levels of autonomous PEB motivation are found in organizations that support both pro-environmental activity and workers' autonomy, indicating that building an eco-workforce requires organizations to not only have strong pro-environmental policies and procedures but to also support their workers' autonomy.

An optimal workplace, then, would provide the right conditions for engaging in PEBs in the first place. This might involve increasing employees' feelings of autonomy over their own environmental behaviors by, for example, having control over their own electricity use, recycling behavior, etc. This would encourage employees to explore environmental activities they find interesting and challenging, which has the potential to support the internalization of environmental values, providing the motivational foundation for additional pro-environmental behaviors both inside and outside the workplace (Deci & Ryan, 2000).

Limitations and Future Research

This study had several limitations that should be considered when interpreting our findings. First, our study relies on self-reported data provided by employees recruited from a non-probability sample. Although we employed a large, diverse national sample, findings cannot presume to be generalizable to the broader Australian population or to other countries. To evaluate the robustness of our findings, we recommend additional studies using a variety of samples, including those from other countries and cultures and recruited in ways other than through an online panel. We also recommend collecting information using more objective measures for work climate (e.g., independent analysis of organizational policies) and employee PEBs (e.g., data from waste audits and energy monitoring systems).

A second important limitation of this study is that it employed a correlational

research design. Although mediation analysis implies a causal explanation (Hayes, 2018), in the present study, it should not be used to make strong causal claims. Although we identified several significant indirect effects of work climate on employees' PEB through two motivational constructs, at best we can only conclude that this pattern of results is consistent with a causal path. It is possible that some of the associations between climate, motivation, and behavior may in fact be bi-directional. For example, individuals with strong autonomous motivation for PEB may be more likely to perceive their organizations as having green climates, and engaging in PEB may reinforce pro-environmental motivation.

Controlling for participants' ecological worldviews should partially control for these reciprocal effects. Nevertheless, future research using experimental research designs in which variables are experimentally manipulated are necessary to make stronger claims about direction of causality. Future research should also examine other variables such as needs, norms, and self-identity not included in the current study that may explain relationships between work climate and PEB.

A major outstanding challenge for academics and practitioners is evaluating actual changes in PEB and also measuring sustained PEB resulting from a particular intervention. Understanding how to change and permanently shift people's behavior is essential for interventions to be supported within businesses and by government. Thus, we recommend collecting information on employee PEB at multiple time points to test the stability of PEB associated with different interventions.

Conclusion

In this study, we investigated the effects of two types of work climate (pro-environmental climate and organizational support for employee autonomy) on employees' propensity to engage in PEB both at work and outside the workplace. Testing a model based on SDT, we also investigated whether these effects were mediated by two types of employee motivation: controlled and autonomous. We found that in workplaces with stronger pro-environmental climates and at least moderate levels of autonomy support, employees reported higher levels of

autonomous motivation to engage in PEB. In turn, employees with higher levels of autonomous motivation engaged in more PEBs, both inside and outside the workplace. Controlled motivation played a much more limited role in predicting employee PEBs in workplace and non-workplace settings. Overall, our findings suggest work climates that support pro-environmental actions and employee autonomy not only foster PEBs within the workplace but also lay the foundation for PEBs in other non- workplace settings.

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Statement of Originality

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We, the Research Master/PhD candidate and the candidate's Principal Supervisor, certify that the following text, figures and diagrams are the candidate's original work.

Type of work	Page number/s
Text	37 - 61
Table 2.1 Zero order correlations and descriptive statistics for study variables	52
Figure 2.1 Moderated mediation model showing (1) autonomy support moderating the effects of pro-environmental climate on autonomous PEB motivation, and (2) autonomous PEB motivation mediating the effects of the work climate variables on workplace PEB and non-workplace PEB	55

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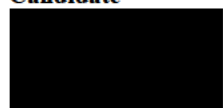
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Research Progression to Study 2 (Chapter 3)

Study 1 found that in workplaces with stronger pro-environmental climates and at least moderate levels of autonomy support, employees reported higher levels of autonomous motivation to engage in PEB. In turn, employees with higher levels of autonomous motivation engaged in more PEBs, both inside and outside the workplace. Study 2 extends the findings of Study 1 in three important ways. First, Study 2 examines pro-environmental work climate and employees' work and job engagement. Second, personal and organizational factors will be investigated as moderators. Finally, employee motivation is operationalized as intrinsic need satisfaction, assessed as participants' reports of their experiences at work.

Chapter 3

Study 2

Does Green-Person-Organization Fit Predict Intrinsic Need Satisfaction and Workplace Engagement?

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Abstract

The current study assessed whether high green-person-organization fit (GPO; the extent to which an organization's commitment to pro-environmental outcomes is congruent with its employees' environmental values) predicts employees' intrinsic need satisfaction and engagement in the workplace. The sample consisted of 818 full-time Australian workers, sourced from an online panel. Consistent with the GPO model, pro-environmental work climate was a more potent predictor of intrinsic need satisfaction and engagement for employees with strong ecocentric values than those with weak ecocentric values. Mediation analyses revealed that the effect of work climate on employee engagement was fully mediated by intrinsic need satisfaction, and this effect was strongest when GPO fit was high. Overall, our findings suggest that organizations with pro-environmental work climates that match their employees' values have more satisfied and committed workforces.

Introduction

Strategies to motivate and retain valued employees are crucial for organizational success (Gagne & Panaccio, 2015). More than ever, organizations expect their employees "to be proactive and show initiative, collaborate smoothly with others, take responsibility for their own professional development, and be committed to high quality performance standards" (Bakker & Schaufeli, 2008, p. 147). For this to happen, organizations need engaged workers. Many organizations offer a competitive salary and benefits as incentives. However, research on workplace engagement has shown that extrinsic benefits such as pay and promotion may be less important to workers than positive work climates characterized by policies, practices, and procedures that align with employees' personal values and beliefs (Deci & Ryan, 2015). This message is resonating with corporate decision makers. A report by PwC (2014), based on a survey of 500 HR professionals, indicated that 36% of responding organizations were developing strategies to enact climates of corporate responsibility that match employees' values and beliefs. Using a large sample of employed Australians, the current study combines person-environment fit with self-determination theory to determine whether the match

between organizations' pro-environmental work climates and employees' pro-environmental values predicts employee engagement in the workplace.

Work Climate

Work climate can be defined as employees' perceptions of their organization in terms of its policies, practices, and procedures (Schneider, Ehrhart, & Macey, 2013). Work climate is similar to work culture in the sense that both terms are used to describe the "character" of working environments. But they emerge from different academic traditions; culture from anthropology, and climate from Lewinian psychology (Schneider, 1990). An organization's culture reflects the underlying assumptions that shape its operations, encompassing embedded narratives and symbols that are largely taken for granted, and guiding behavior primarily at a subconscious level. Climate, on the other hand, reflects more surface-level processes and practices to which employees consciously attend (Kuenzi & Schminke, 2009).

Work climate has important effects on organizations and the people they employ (Kuenzi & Schminke, 2009). It drives employee attitudes and behavior by directing employee performance and enforcing normative standards (Schneider, 2000; Zohar & Luria, 2005). Previous research has linked positive work climates - the presence or absence of policies, practices, and procedures that support corporate responsibility - to a range of workplace behaviors including organizational citizenship (Ehrhart, 2004), safety (Clarke, 2006), ethics (Martin & Cullen, 2006), and performance of both individuals (McKay, Avery, & Morris, 2008) and teams (Colquitt, Noe, & Jackson, 2002).

In an influential review of work climate research, Kuenzi and Schminke (2009) found that positive work climates also elicit higher levels of employee engagement. For example, perceptions of a strong climate for justice were associated with lower turnover intentions (Simons & Roberson, 2003), and perceptions of ethical climates have been linked to employee job satisfaction, commitment, and retention (Ambrose, Arnaud, & Schminke, 2008; Cullen, Parboteeah, & Victor, 2003). Similar effects have been observed for pro-environmental work climates, with

several studies finding that organizations with such climates have more satisfied (Tilleman, 2012) and committed workers (Spanjol, Tam, & Tam, 2015) who are less likely to search for new jobs elsewhere (Lamm, Tosti-Kharas, & King, 2015).

In summary, work climates with policies, practices, and procedures that reflect a commitment to corporate responsibility appear to increase employee satisfaction and engagement. Nevertheless, some studies suggest that not all employees respond to work climates in the same way (Kuenzi & Schminke, 2009). Climates that advocate ethics, justice, and/or pro-environmental outcomes may resonate with some employees but be irrelevant or off-putting to others. For example, Ambrose et al. (2008) found that the effect of ethical work climates on employee job attitudes varied as a function of employees' level of moral development. Similarly, Liao and Rupp (2005) reported that individual differences in employee justice orientation moderated the effect of justice climates on supervisory commitment and satisfaction. Examining work climate as the determinant, Graves, Sarkis, and Zhu (2013) found that environmental leadership moderated the relationship between employee motivation for and frequency of pro-environmental behavior. Person- organization (PO) fit (Kristof, 1996) provides a useful conceptual model for predicting which employees are likely to embrace and flourish under which climates. This is outlined in the next section.

Person-Environment, Person-Organization, and Green-Person-Organization Fit

Person-environment (PE) fit is defined as “the congruence, match, similarity, or correspondence between the person and the environment” (Edwards & Shipp, 2007, p. 211). Fit can be complementary or supplementary. Complementary fit occurs when a “weakness or need of the environment is offset by the strength of the individual, or vice versa” (Muchinsky & Monahan, 1987, p. 271). This is sometimes referred to as demands-ability fit, given that the specific needs of a situation are fulfilled by a person with the right skill set or ability. Supplementary fit refers to situations where the person and environment possess similar characteristics, such as the case when a culture or work climate are based on values that match those of the people who are living and/or working in that environment (Kristof, 1996). The

present study focuses on supplementary fit between organizational climate and employee values as they pertain to pro-environmental outcomes.

PO fit is one type of PE fit that focuses on outcomes arising from the compatibility of employees and the organizations in which they work. Early PO fit research emphasized the extent to which employees' personalities matched their organizations' work climate, referred to as personality-climate congruence (Tom, 1971). More recent research has operationalized PO fit in terms of shared values and goals (i.e., value and goal-congruence), and also the extent to which organizations provide workplace resources that satisfy employee needs (i.e., need satisfaction; Kristof-Brown, Zimmerman, & Johnson, 2005). An early meta-analysis by Kristof-Brown et al. (2005) found PO fit to correlate strongly, in a positive direction, with job satisfaction ($r = .41$), organizational commitment ($r = .51$), and organization satisfaction ($r = .65$), and to negatively correlate with quitting intentions ($r = -.35$).

Green-person-organization (GPO) fit is perhaps best described as a subtype of PO fit that assesses the extent to which an organization's commitment to environmental protection is congruent with its employees' environmental values. The concept of GPO fit appears to have originated with Hoffman (1993) who proposed that potential prosperity for "green" organizations may come from understanding more about the influence of a pro-environmental climate at the level of the employee. That is, pro-environmental work climates may have a differential effect on organizational outcomes depending on the extent to which an organization's environmental values are aligned or misaligned with employees' environmental values. Previous studies have shown that personal values are associated with pro-environmental behavioral intentions (e.g., de Groot & Steg, 2008, 2010). GPO fit provides the opportunity to not only examine the functional relationship of personal environmental values in the work environment, but also to determine whether fit effects extend to activity other than environmental protection.

To date, there has been little empirical work investigating the impact of GPO fit on employee and organizational outcomes. Spanjol et al. (2015) found that GPO fit predicted employee job satisfaction and, in turn, job satisfaction predicted

creativity at work. Specifically, value congruence produced greater job satisfaction and more creativity when employees and employers both greatly cared about the environment (high fit), than when both cared little about the environment (low fit). A review of the literature failed to identify any studies that explored the association between GPO fit and employee engagement, defined in this study as commitment to work tasks and intention to remain with one's current organization. Nor did the review identify any studies investigating the motivational mechanisms through which GPO fit may exert its effects.

A further justification for the current study stems from van Vianen's (2018, p. 86) review of the PO fit literature. She noted that the expected effect of PO fit on employee job attitudes failed to materialise in some studies, and concluded that "some organizational values, such as human relations values, humanity values, and relationships values, are positively related to job attitudes irrespective of employees' own values." This finding is particularly relevant to the current study given that it suggests that, at least in some instances, PO fit is less important than the specific values espoused and enacted within an organization's climate.

A primary aim of the current study is to assess whether pro-environmental values should be added to this list of organizational values that increase employee engagement independently of PO fit. This is not only important from a theoretical perspective, in that it helps define the boundary conditions for PO fit effects, but it may also have important implications for employee recruitment and retention. If a strong corporate commitment to pro-environmental outcomes directly determines employee engagement and retention, unmoderated by employee values, organizations could recruit the most knowledgeable applicants with the strongest skills. However, if fit between organizational climate and employees' values is a more important determinant of engagement than climate alone, then recruitment should also screen applicants for value congruence.

Self-Determination Theory and Fit

Although there is compelling evidence that PO fit is positively associated

with employee satisfaction and engagement (setting aside the possible boundary conditions identified by van Vianen, 2018), the specific mechanisms through which it exerts its effects remain unclear. Self-determination theory (SDT; Deci & Ryan, 2000) offers a potential explanatory framework. SDT explicitly links social contexts, such as work climates, to well-being and optimal functioning through the satisfaction of basic psychological (intrinsic) needs. According to SDT, humans are naturally oriented towards satisfying their intrinsic needs for autonomy (i.e., the natural desire to “self-organize experience and behavior and to have activity be concordant with one’s integrated sense of self”; Deci & Ryan, 2000, p. 231), competence (i.e., a sense of proficiency when operating in a particular environment), and relatedness (i.e., the natural inclination to experience a connection with social groups), and these needs are “necessary for healthy development and effective functioning” (Deci & Ryan, 2000, p. 262).

When employee values are congruent with the climate of the organization that employs them (i.e., when PO fit is high), the potential for need satisfaction should be increased. In value-congruent conditions, employees will more likely experience that they are acting with volition and choice, even if their work activities are directed by policies and procedures. Van den Broeck, Ferris, Chang, and Rosen (2016) provide support for this perspective in a recent meta-analysis. Across six studies, they found an average correlation of .46 between PO fit and employees’ intrinsic need satisfaction for autonomy, competence, and relatedness. They also found that higher need satisfaction was positively associated with workplace engagement across three subdomains ($r_{autonomy} = .54$, $r_{competence} = .33$, and $r_{relatedness} = .40$) and negatively associated turnover intentions ($r_{autonomy} = -.31$, $r_{competence} = -.05$, and $r_{relatedness} = -.21$), with all effects being statistically significant ($p < .05$). In a formal mediation test, Greguras and Diefendorff (2009) integrated PO fit with SDT and found that satisfaction of intrinsic needs partially mediated (explained) the relationship between PO fit assessed as “my personal values match my organization’s values and culture” and organizational commitment. The current study is the first to investigate whether need satisfaction mediates the effect of GPO fit on employee engagement.

The Current Study

The present study assessed the effect of GPO fit (i.e., the extent to which an organization's commitment to pro-environmental outcomes is congruent with its employees' pro-environmental values) on employees' intrinsic need satisfaction and workplace engagement. Based on our review of the work climate literature, we predicted that employees working in organizations with strong pro-environmental climates would report higher levels of intrinsic need satisfaction and work engagement (Hypothesis 1). In addition, we predicted that these positive work climate effects would increase as a function of GPO fit. That is, we expected that the magnitude of the effects of pro-environmental work climate on employee need satisfaction and engagement would be stronger for employees with pro-environmental value orientations than for employees who are less strongly inclined towards conserving the environment (Hypothesis 2). Finally, based on SDT, we predicted that need satisfaction would mediate the effect of pro-environmental work climate on employee engagement (Hypothesis 3), and the magnitude of this mediation effect would be stronger when GPO fit was high than when GPO fit was low (Hypothesis 4).

Methods

Participants

A community sample of 818 Australian adults participated in this study. All were employed full time when they completed the survey. Women accounted for just over half the sample (52%). Ages ranged from 18 to 69 years: 18-24 (8%), 25-34 (35%), 35-44 (29%), 45-54 (16%), 55-64 (11%), and 65+ years (<1%). The sample included a broad range of education levels: less than year 10 (<1%), year 10 high school (5%), year 12 high school (15%), vocational education training certificate (17%), diploma or advanced diploma (14%), graduate diploma or bachelor degree (34%), and postgraduate university degree (15%). The survey was developed using the Qualtrics™ online survey platform (Provo, UT). Participants were recruited from a Qualtrics research panel and received a small monetary payment for completing the survey. The project was reviewed and approved by the home University's Human

Research Ethics Committee.

Measures

The survey consisted of measures assessing employee perceptions of workplace pro- environmental climate, ecological worldview, intrinsic need satisfaction, and frequency of work withdrawal behaviors. The survey also included measures of workplace autonomy support, employee motivation to engage in pro- environmental behavior (PEB), and frequency of workplace and non-workplace PEB, which were used for a separate study (Hicklenton, Hine, & Loi, 2019). In total, participants responded to 159 items. Cronbach's alphas reported in this section were based on data from the current study.

Demographics

Demographic information was measured and used as control variables in all analyses. Single-item measures assessed participants' age, gender, and educational attainment.

Pro-Environmental Work Climate

Employees' perceptions of their organization's commitment to positive environmental outcomes was assessed with the Green Work Climate Perceptions Scale (Norton, Zacher, & Ashkanasy, 2014), with four items, including "Our company is worried about its environmental impact" and "Our company believes it is important to protect the environment". Participants indicated their agreement with each statement on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The items were averaged to compute an overall work climate score in which a high score reflects a perception that the organization is committed to environmental protection. The scale exhibited high internal consistency (Cronbach's $\alpha = .92$).

Environmental Values

Participants' environmental values were assessed using the revised New Ecological Paradigm (NEP) Scale (Dunlap, Van Liere, Mertig, & Jones, 2000)

comprising 15 items and a 7-point scale that ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). High NEP scores reflect ecocentrism, defined as recognition that the earth's carrying capacity is limited and that we are rapidly approaching these limits. Low NEP scores reflect an anthropocentric worldview, defined as believing that the earth's resources should be exploited for human benefit and that our ingenuity as a species will enable us to overcome environmental problems as they arise (Cronbach's $\alpha = .82$).

Intrinsic Need Satisfaction

The extent to which participants experience satisfaction of their basic needs was assessed with the Intrinsic Need Satisfaction Scale (Deci et al., 2001). This scale contains 21- items forming three subscales for autonomy, competence, and relatedness based on employees' experiences on the job during the past year. Representative items include: "I have been able to learn interesting new skills on my job" (autonomy); "On my job I do not get much of a chance to show how capable I am" (competence, reverse scored); and "There are not many people at work that I am close to" (relatedness, reverse scored). Responses were measured using a 7-point scale from 1 (*not at all true*) to 7 (*very true*). Scores on each dimension of the scale were averaged to compute an overall score of intrinsic need satisfaction. A high score reflects positive work experiences, specifically, feeling autonomous, competent, and related to others in the workplace. The decision to use a total need satisfaction score was based on significant intercorrelations ($p > .60$) between the autonomy, competence, and relatedness subscales, and previous research that suggests all three subscales predict employee engagement in the same way. Other researchers (e.g., Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008) also used an overall score. Cronbach's alpha for the scale was .89, indicating high internal consistency.

Employee Engagement

Employee engagement was assessed using the Organizational Withdrawal Scale (Hanisch & Hulin, 1990) which assesses two behavioral aspects of organizational engagement: work withdrawal (the extent to which participants avoid

work tasks), and job withdrawal (the frequency with which participants engage in thoughts about behavior related to leaving the organization altogether). The scale contains six items including, “Neglected tasks that wouldn’t affect your evaluation/pay raise” and “Completed work assignments late” for work withdrawal, and “Thought about quitting because of work related issues” for job withdrawal. Responses were measured using a 4-point scale from 1 (*once or twice a year*) to 4 (*once a week or more*). Items were reverse-scored and then averaged to compute a total workplace engagement score, with higher scores reflecting greater engagement (Cronbach’s $\alpha = .81$).

Employee engagement has been defined in many ways (Macey & Schneider, 2008), with some researchers distinguishing between cognitive, affective and behavioral components (Shuck & Wollard, 2010)¹.

Statistical Analyses

All statistical analyses were conducted using SPSS (Version 25). Moderation and mediation tests were conducted using the PROCESS V3.2 macro (Hayes, 2018). Given all hypotheses were directional, 90% confidence intervals and one-tailed significance tests were employed for the moderation and mediation analyses. The survey used a forced response format, so there were no missing data. Examination of boxplots revealed a small number of univariate outliers on most of the variables included in the model, but no extreme scores. Three multivariate outliers were identified, and the analyses were re-run with the outliers removed. The re-run analyses generated the same substantive findings with outliers included and excluded. Given that outliers are to be expected in large data sets, and that there was no evidence to suggest they were invalid responses, all cases were retained for subsequent analyses reported in this paper.

^{1 1} In the current study, we chose to focus on behavioral engagement, rather than the cognitive and affective components, given that we (1) were primarily interested in the practical behavioral outcomes of GPO fit, and (2) wanted to minimize the conceptual overlap with the perceived work climate and need satisfaction variables in our model.

Results

Descriptive Statistics and Preliminary Analyses

Means, standard deviations, and intercorrelations for the main study variables and demographics are presented in Table 3.1. On average, participants reported that their organizations were moderately committed to environmental sustainability principles and outcomes with the mean on the organizational pro-environmental climate measure falling above the midpoint (3.46 on a 1 to 5 scale). The mean score on the NEP scale also fell above the midpoint (4.87 on a 1 to 7 scale), indicating participants exhibited somewhat stronger levels of ecocentrism than anthropocentrism. On average, participants scored above the midpoint on the intrinsic need satisfaction scale (4.92 on a 1 to 7 scale) and above the midpoint on the (reverse-scored) work withdrawal scale (2.36 on a 1 to 4 scale), indicating they believed their intrinsic needs as individuals were being met at work and they were engaged with their jobs. As is commonly the case in mediation analyses, the correlation between work climate (the IV) and engagement (the DV) was significant but smaller than the correlation between climate and need satisfaction (the proposed mediator). Gender, age, and education correlated significantly with the theoretical variables in the model, and therefore were included as covariates in the moderation and mediation analyses.

Table 3.1 *Zero-Order Correlations and Descriptive Statistics for Study Variables (n = 818)*

Variable	M	SD	Correlation (r)							
			1	2	3	4	5	6	7	
1. Gender	1.54	0.53	-							
2. Age	21.77	11.83	-.11**	-						
3. Education	5.02	1.49	.00	-.15**	-					
4. Environmental values (ecocentrism)	4.87	0.79	.19**	.18**	.02	-				
5. Pro-environmental climate	3.46	1.04	-.06	-.06	.17**	-.06	-			
6. Intrinsic need satisfaction	4.92	0.94	.02	.06	-.03	.01	.30**	-		
7. Employee engagement	2.36	0.70	.06	.24**	-.13**	.13**	.08*	.35**	-	
<i>Theoretical range for each variable</i>						1-5	1-7	1-7	1-4	

Note: Point-biserial correlations were computed for all associations involving gender, and Spearman's *rho* was used for all associations involving education. All other correlations are Pearson's *r*.

* $p < .05$, ** $p < .01$.

Moderation Analyses

According to the GPO fit hypothesis, employees with ecocentric values are more likely to have their intrinsic needs satisfied in organizations with strong pro-environmental work climates and also be more engaged with their jobs. To assess these hypotheses, we conducted two moderation analyses using Model 1 in Hayes' (2018) SPSS PROCESS macro. For both analyses, pro-environmental work climate was the independent variable and ecocentric values, as assessed by the NEP, was the moderator. Employees' intrinsic need satisfaction and work engagement were the dependent variables for the first and second analyses, respectively. As recommended by Hayes (2018), both the independent variable and moderator were centered at 0 prior to computing the interaction effect.

In the first moderation analysis, pro-environmental work climate significantly predicted need satisfaction ($B = .26$, $SE = .03$, 90% CI = .21 to .31), but ecocentric values did not ($B = .03$, $SE = .04$, 90% CI = -.03 to .10). As predicted, the work climate main effect was qualified by a significant interaction between work climate and ecocentric values ($B = .11$, $SE = .04$, 90% CI = .06 to .17). To probe the significant interaction, we conducted a conditional analysis in PROCESS, assessing the effect of pro-environmental work climate on employee need satisfaction at three levels of ecocentric values: weak (16th percentile), moderate (50th percentile), or strong (84th percentile). This analysis indicated that work climate significantly predicted need satisfaction at all three levels of ecocentrism: (1) weak ecocentrism, $B = .18$, $SE = .04$, 90% CI = .11 to .25, (2) moderate ecocentrism, $B = .26$, $SE = .03$, 90% CI = .21 to .31, and (3) strong ecocentrism, $B = .35$, $SE = .04$, 90% CI = .29 to .42. Consistent with the GPO hypothesis, pro-environmental work climate was a stronger predictor of employee need satisfaction for participants with strong ecocentric values than for those with weak ecocentric values.

In the second moderation analysis, pro-environmental work climate, ecocentric values, and their interaction all significantly predicted employee engagement ($B = .07$, $SE = .02$, 90% CI = .03 to .11 for work climate; $B = .12$, $SE = .03$, 90% CI = .07 to .17 for ecocentrism; and $B = .06$, $SE = .03$, 90% CI = .01 to .10

for the interaction). Once again, a conditional analysis was conducted to probe the interaction. The analysis indicated pro- environmental work climate significantly predicted increased work engagement for employees who scored at moderate (50th percentile, $B = .07$, $SE = .02$, 90% CI = .03 to .11) and 84th percentile (1 SD above the mean, $B = .11$, $SE = .03$, 90% CI = .06 to .16) levels on ecocentric values, but not for employees who scored low (16th percentile, $B = .03$, $SE = .03$, 90% CI = -.03 to .08). That is, consistent with the GPO fit model, pro-environmental work climate was a significant predictor of employee engagement for participants with strong ecocentric values, but not for those with weak ecocentric values. Plots for both significant interactions are presented in Figure 3.1.

Moderated-Mediation Analysis

The final set of analyses focused on the extent to which intrinsic need satisfaction mediated the predictive effect of pro-environmental work climate on engagement for employees with weak, moderate, and strong ecocentric values. To test these hypotheses, a moderated mediation analysis was conducted using Model 8 within the SPSS PROCESS macro (Hayes, 2018). The analysis revealed that the indirect effect of pro-environmental work climate on engagement, through need satisfaction, was significant for employees with weak (16th percentile, $B = .04$, $SE = .01$, 90% CI = .02 to .068), moderate (50th percentile, $B = .07$, $SE = .01$, 90% CI = .05 to .09) and strong (84th percentile, $B = .09$, $SE = .01$, 90% CI = .069 to .12) ecocentric values. Once again, consistent with the GPO fit model, the indirect effect of pro-environmental climate on engagement, through need satisfaction, was significantly stronger for employees with strong ecocentric values (i.e., when GPO fit was high) than those with weak ecocentric values (i.e., when GPO fit was low), as reflected by the non- overlapping confidence intervals. The direct effects of work climate on worker engagement was nonsignificant at all three levels of ecocentrism after controlling for the mediator: low ($B = .08$, $SE = .04$, 90% CI = .01 to .16), moderate ($B = .12$, $SE = .03$, 90% CI = .06 to .18), and high ($B = .15$, $SE = .04$, 90% CI = .08 to .21), indicating that need satisfaction fully mediated the effect of climate on engagement.

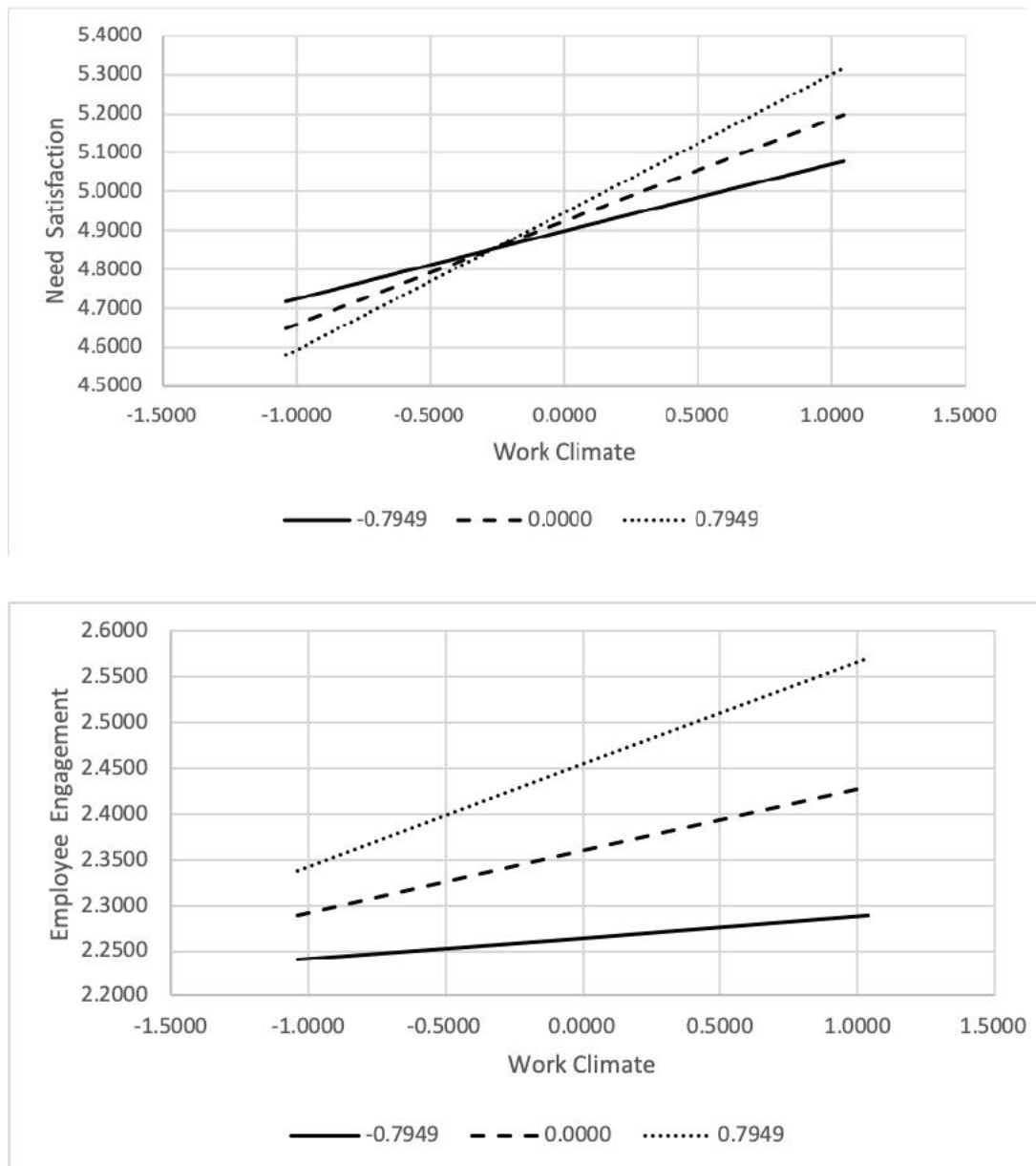


Figure 3.1 Interaction plots of the predictive effects of work climate on employee need satisfaction and engagement for three levels of environmental values.

Discussion

This study investigated whether GPO fit (the extent to which an organization’s commitment to pro-environmental outcomes is congruent with its employees’ pro- environmental values) would predict employees’ intrinsic need satisfaction and work engagement. Consistent with Hypothesis 1, employees working in organizations with pro- environmental work climates reported higher

levels of intrinsic need satisfaction and work engagement. The correlation between work climate and intrinsic need satisfaction was moderate in magnitude, whereas the correlation between work climate and engagement was smaller, but still statistically significant. These findings support previous research on positive work climates; organizations' policies, practices, and procedures that reflect a commitment to corporate responsibility are positively associated with increased employee satisfaction and engagement (Kuenzi & Schminke, 2009). The findings suggest that these effects also apply to organizations with pro-environmental work climates.

To investigate GPO fit, two moderation analyses were conducted. We hypothesized that the positive effects of pro-environmental work climate on intrinsic need satisfaction and workplace engagement would be stronger for employees with strong ecocentric values (i.e., when GPO fit was high) than for those with weak ecocentric values (i.e., when GPO fit was low). This second hypothesis was also supported. Pro-environmental climate was a positive, and statistically reliable, predictor of need satisfaction at all three levels of ecocentrism, but the effect became progressively stronger as a function of employees' ecocentric values. A similar result was found for employee engagement; pro-environmental work climate became an increasingly stronger predictor of engagement as a function of employees' ecocentric values. That is, pro-environmental climate failed to predict engagement when employee ecocentrism was low. However, the climate effect increased in magnitude and reached statistical significance at moderate and high levels of ecocentrism; that is, as GPO fit increased.

Importantly, the presence of a pro-environmental climate never became a negative predictor of intrinsic need satisfaction and engagement, even for employees with weak ecocentric values. This suggests that GPO fit may be a more important determinant of need satisfaction and engagement than GPO misfit. Although GPO misfit weakened the positive effect of pro-environmental climate on worker experiences, it did not ever reverse the effect such that having a pro-environmental work climate actually reduced employee engagement, even for employees with non-green value orientations. The effects of GPO fit in the study, on the other hand, were all positive, and the higher the value-congruence between organizations and workers,

the greater the benefit.

The study also investigated the process by which GPO fit might influence worker engagement by investigating need satisfaction as a potential mediator. Intrinsic need satisfaction is a central concept from SDT, and has been identified as a key determinant of employee motivation and engagement (Deci & Ryan, 2015). Consistent with Hypothesis 3, our results indicate that intrinsic need satisfaction fully mediated the effect of pro- environmental climate on employee engagement. Although this mediation effect held for all participants, regardless of whether they had low, moderate, or high ecocentric values, the indirect effect was significantly stronger when employees' ecocentric values were high as opposed to low, a finding that is consistent with Hypothesis 4.

Practical Implications

Our results indicate that high GPO fit may be an important contributor to employee motivation and engagement. Given previous research linking employee engagement to organization success (Gagné & Panaccio, 2015), organizations should consider strategies for increasing GPO fit. This could be done by recruiting new employees based on person- organization-value-congruence and post-hire with training and workshops. Typically, recruiters use person-job fit to determine whether an applicant's knowledge, skills, and abilities fit with a specific job (Adkins, Russell, & Werbel, 1994). Instruments have also been designed to assess whether the job applicant and the organization align on various values such as being aggressive, competitive, or supportive (O'Reilly, Chatman, & Caldwell, 1991). GPO fit might provide another concrete assessment of value congruence useful in recruitment, particularly for organizations introducing or expanding their pro-environmental policies and procedures.

Socialization and training activities have been shown to increase employees' perceptions of PO fit (Autry & Wheeler, 2005). As a rule, socialization in a work context is a one-way process in which the purpose of the training is for the organization to transmit information to employees about organizational values and

expected role behaviors necessary for employees to be successful in their jobs (Autry & Wheeler, 2005). However, opportunities for two-way socialization should not be overlooked, in which the organization not only conveys environmental information but also recognizes the knowledge and skills of employees and accounts for their concerns about environmental protection. For example, through workshops designed with the purpose of generating interest in environmental protection and supporting employees to integrate environmental tasks with their other work tasks. This might involve allowing employees and work groups to choose how they prioritize different actions aligned to corporate environmental goals (Ryan & Deci, 2000). Where misalignment in environmental values is identified, the purpose of training would be to support employees to internalize corporate environmental values, for example, with information about why the organization has adopted pro-environmental policies and procedures.

Limitations and Future Research

This study had several limitations that should be considered when interpreting our findings. First, our study relies on self-reported data provided by employees recruited from a non-probability sample. Although we employed a large, diverse national sample, findings cannot presume to be generalizable to the broader Australian population or to other countries. To evaluate the robustness of our findings, we recommend additional studies using a variety of samples, including those from other countries and cultures and recruited in ways other than through an online panel. We also recommend collecting information using more objective measures of work climate (e.g., independent analysis of organizational policies) and employee engagement (e.g., data from HR on employee performance and turnover).

A second limitation of this study is that it employed a correlational research design. Although mediation analysis implies a causal explanation (Hayes, 2018), in the present study, it should not be used to make strong causal claims. For example, although our mediation analysis provided evidence consistent with the widely held view that work climate causes need satisfaction and engagement, given that all our measures were based on employees' self-reported perceptions, it is possible that, for

example, perceptions of engagement influence perceptions of climate, and not vice versa. It is also possible, that the work climate effects observed in the study were due to other uncontrolled organizational variables that covary with pro-environmental climate. For example, it is possible that organizations with strong-pro-environmental climates also have other progressive attributes (such as a commitment to ethics and employee welfare) that are the actual drivers of intrinsic need satisfaction and engagement. Future studies should control for these other factors to rule out possible alternative explanations.

Finally, the current study employed a cross-sectional design, whereby all data were collected at a single time point. It would be beneficial for future GPO work to explore how fit can change over time, and which factors drive this change.

Conclusions

The results of the current study extend previous research on work climate, PO fit, and SDT by demonstrating that (1) organizations with pro-environmental policies, procedures, and processes had more satisfied and engaged employees, (2) the positive effects of pro-environmental work climates was particularly pronounced for employees with pro-environmental values, that is, when GPO fit was high, and (3) employees with pro- environmental values working in organizations with pro-environmental work climates were more engaged because such working environments helps them satisfy their intrinsic needs. Overall, our findings highlight the benefits to organizations of implementing pro- environmental policies, procedures, and processes, and an added advantage of striving for value congruence between employers and employees.

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We, the Research Master/PhD candidate and the candidate's Principal Supervisor, certify that the following text, figures and diagrams are the candidate's original work.


Type of work	Page number/s
Text	69 - 91
Table 3.1 Zero order correlations and descriptive statistics for study variables	83
Figure 3.1 Interaction plots of the predictive effects of work climate on employee need satisfaction and engagement for three levels of environmental values	85

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We, the Research Master/PhD candidate and the candidate's Principal Supervisor, certify that all co-authors have consented to their work being included in the thesis and they have accepted the candidate's contribution as indicated in the *Statement of Originality*.

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Research Progression to Study 3 (Chapter 4)

Using person-organization (PO) fit theory (Kristof, 1996), both Study 2 and Study 3 operationalized fit in terms of shared values and goals (i.e., value and goal congruence). Study 2 found that high green-person-organization fit (GPO; the extent to which an organization's commitment to pro-environmental outcomes is congruent with its employees' environmental values) predicted employees' intrinsic need satisfaction and engagement in the workplace, and the effect was most potent when GPO fit was high. Study 3 differs from Studies 1 and 2 by involving a sample of prospective employees. Study 3 extends the findings of Study 2 in two important ways. First, it examines job seekers' perceptions of the attractiveness of a broad range of organizational values, including pro-environmental climate. Second, job seekers' self-enhancement and self-transcendent values are investigated as moderators of the relationships between organization attributes and attractiveness decisions.

Chapter 4

Study 3

How Personal Values Shape Job Seeker Preference: A Policy Capturing Study

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Article Submitted for Publication

Abstract

Does the ‘ideal’ organization exist? Or do different workplace attributes attract different people? And if so, what attributes attract what types of employees? This study combines person-organization fit theory and a policy capturing methodology to determine (a) which attributes are the strongest predictors of perceived organization attractiveness in a sample of Australian job seekers, and (b) whether the magnitude of these predictive effects varies as a function of job seekers’ personal values. Each of the 400 participants received a random subset of 8 of 64 possible descriptions of organizations. Each description presented an organization that scored either high or low on six attributes based on the Employer Attractiveness Scale: economic, development, interest, social, application, and environmental value. Multi-level modelling revealed that all six attributes positively predicted job seekers’ ratings of organization attractiveness; with the three strongest predictors being social, environmental, and application value. Moderation analyses revealed that participants with strong self-transcendent or weak self- enhancement values were most sensitive to the absence of social, environmental, and application value in workplaces, downrating organizations that scored low on these attributes.

Introduction

Securing high-quality employees is critical to the success of business organizations. Successful recruiting involves not only being judged as attractive by desirable job applicants, but also being the employer-of-choice for applicants weighing several offers. But what exactly makes organizations attractive to potential applicants? Industry leaders, such as Google and Apple, can use name recognition and reputation to attract desirable applicants, but other less high-profile organizations must rely on alternative strategies.

Research into the attractiveness of organizational attributes varies substantially across studies. Some studies indicate factors like pay and promotion potential are most important, whereas others highlight the prospect of challenging and interesting work, opportunities for teamwork and positive social interactions (Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005; Uggerslev, Fassina, & Kraichy, 2012). Person-organization (PO) fit (Kristof, 1996), operationalized in this study as the level of congruence between values of organizations and their prospective employees, is a useful theoretical lens for understanding these inconsistencies. This study combines PO fit theory and a policy capturing methodology to determine which organizational attributes are the strongest predictors of perceived organization attractiveness in a sample of Australian job seekers, and whether the magnitude of these predictive effects varies as function of job seekers' personal values.

Organizational Attractiveness

Organizational attractiveness refers to the overall appeal of an organization, to employees, prospective employees, and others who may choose to engage (or not engage) with it. Attractiveness can be conceptualized as an expectancy of “envisioned benefits” (Berthon, Ewing, & Hah, 2005, p. 151) and/or as “an attitude or expressed general positive affect” (Aiman-Smith, Bauer, & Cable, 2001, p. 228), reflecting the general desirability of initiating or maintaining a relationship with a particular organization (Barber, 1998).

To date, two meta-analyses have summarized much of the research on workplace attributes and organization attractiveness (Chapman et al., 2005; Uggerslev et al., 2012). The first review of 71 studies, conducted by Chapman et al. (2005), found that work environment and organization image (reputation) were much stronger predictors of perceived organization attractiveness ($r = .60$ and $.48$, respectively) than job characteristics such as pay ($r = .27$) and promotion opportunity ($r = .27$). A subsequent review of 232 studies by Uggerslev et al. (2012) also found organization image to be a stronger predictor of perceived organization attractiveness ($r = .48$) than pay ($r = .23$) and promotion opportunity ($r = .35$). Interestingly, work environment, the strongest predictor in the first meta-analysis, was more modest in the second ($r = .30$).

Both meta-analyses reported statistically significant Q coefficients for most predictors, reflecting heterogeneity in effect sizes across studies. That is, the effects of specific workplace attributes on perceived organization attractiveness varied significantly across studies; different studies often identified different workplace attributes as the primary drivers of participants' perceptions of organization attractiveness. Moderation analyses conducted in both reviews examined whether average effect sizes for a given attribute varied as a function of sample characteristics such as gender and nationality, and examined measurement approaches for assessing organization attractiveness or organization attributes. For example, Chapman et al. (2005) found that women placed more weight on job characteristics such as location and pay than did men, and job applicants were likely to weigh justice perceptions more strongly than non-applicants.

Heterogeneous effects have also been identified within, as opposed to across, studies. Almiaçık, Almiaçık, Erat, and Akçin (2014) compared the mean attractiveness scores for 25 organization attributes across two nationalities and reported significant cross-national differences for 24 of the 25 attributes. An above-average basic salary was the only attribute for which there was no significant difference in attractiveness rating by nationality.

Many studies investigating the associations between workplace attributes and

job seekers' perceptions of organization attractiveness have employed ad hoc strategies, focusing on one or a few individual attributes making it difficult for business organizations to use research findings for guiding their recruitment strategies. In an attempt to develop a more systematic and comprehensive framework for assessing organization attributes that predict attraction, Berthon, Ewing, and Hah (2005) developed the Employer Attractiveness Scale (EAS).

Benefits of the EAS include a structure derived from both interviews and a factor analysis, with item descriptions that encompass a broad range of work values. The work values in the EAS are categorized from the perspective of potential job applicants, and align with psychological processes that might explain perceptions of attractiveness. The 25 items in the EAS assess five dimensions: (1) *economic value* (basic salary, overall compensation, job security and promotion opportunities); (2) *development value* (supporting employees' personal and career development); (3) *interest value* (supporting novel work practices and forward thinking, and valuing and making use of employees' creativity in the production of high quality and innovative products and services); (4) *social value* (providing a positive and pleasant social environment for employees); and (5) *application value* (being humanitarian and customer-oriented, and providing opportunities for employees to apply their knowledge, teach others, and experience acceptance and belonging).

One important limitation of the EAS is that its *application value* dimension does not include alternative types of corporate social responsibility, such as a commitment to sustainability and positive environmental outcomes. Corporate environmental responsibility is sometimes regarded as a sub-type of corporate social responsibility (e.g., Backhaus, Stone, & Heiner, 2002; Turban & Greening, 1997). In an influential review, Orlitzky, Siegel, and Waldman (2011) suggest researchers should focus on specific sub-dimensions of corporate social responsibility, and several studies have found that corporate environmental responsibility is an important predictor of organization attractiveness (Aiman-Smith et al., 2001; Backhaus et al., 2002; Dögl & Holtbrügge, 2014; Greening & Turban, 2000). Given these findings, in the current study we employ an expanded EAS framework, which includes both application value (reflecting corporate social responsibility) and

environmental value (reflecting corporate environmental responsibility).

Person-Organization Fit and Perceptions of Attractiveness

Person-organization (PO) fit (Kristof, 1996) provides a useful conceptual framework for investigating personal values and perceptions of organization attractiveness, and for understanding why certain workplace attributes are strong predictors of perceived organizational attractiveness in some studies, but not others. PO fit is broadly defined as the compatibility between individuals and organizations (Kristof, 1996). Compatibility is conceptualized as complementary fit and supplementary fit. Complementary fit occurs when a “weakness or need of the environment is offset by the strength of the individual or vice versa” (Muchinsky & Monahan, 1987, p. 271). Supplementary fit refers to situations where the person and the organization possess similar characteristics, such as when work values promoted by recruiting organizations match personal values of potential job applicants (Kristof, 1996). The present study focuses on supplementary fit between work values and personal values as they relate to job-seekers’ perceptions of organization attractiveness. PO fit can help explain that attraction is not based on organization attributes per se but on how those attributes match employees’ or prospective employees’ values, skills, and interests. To date, most of the research on PO fit has employed perception-based measures where respondents are asked how well organizations fit their values and needs (e.g., “To what extent do you feel your values ‘match’ or fit this employer?”, Gully, 2013).

In the present study, we employ an alternative approach. Job seekers were asked to evaluate the attractiveness of a range of organizations that either provide weak or strong support for a range of workplace outcomes (i.e., economic, development, interest, social, application and environmental outcomes). Using a policy capturing methodology, we evaluated whether job seekers would focus on different features of organizations when generating their attractiveness judgements. In this approach, increased PO fit is reflected in the degree to which an organization’s support for specific workplace outcomes matches job seekers’ personal values. Although several studies have examined PO fit using a policy

capturing methodology, the present study is unique because of the sample of Australian job seekers, by evaluating the attractiveness of certain work features and if personal values moderate the results.

Personal Values and Perceived Organization Attractiveness

Schwartz's value theory (2017; Schwartz et al., 2012) provides a useful conceptual model for understanding precisely why job seekers with different values would prefer certain types of organizations more than others. According to Schwartz (1991), personal values reflect desired goals that apply in a broad range of situations, and implicitly or explicitly serve as guiding principles in people's work and personal lives. Schwartz's revised Portrait Values Questionnaire (2012) model is most commonly presented as a circumplex with nine value dimensions: self-direction, universalism, benevolence, conformity, security, power, achievement, hedonism, and stimulation. The values captured by Schwartz's (2012) circumplex are often combined into sets of superordinate values. Of relevance to this study are two superordinate values: self-transcendence and self-enhancement. These are sometimes referred to as 'other' and 'self' orientations (Bridoux, Stofberg, & Den Hartog, 2016).

Self-transcendent values "emphasize concern for the welfare and interests of others" (Schwartz, 2012, p. 8) and encompass universalism and benevolence. Universalist values derive from "the survival needs of individuals and groups" which contrasts with the in-group focus of benevolence values. Benevolence values are defined by goals of "preserving and enhancing the welfare of those with whom one is in frequent personal contact" (Schwartz, 2012, p. 7). Self-enhancement value types, on the other hand, prioritize achievement and power. Achievement is defined as "competent performance that generates resources". Power is defined as "control or dominance over people and resources" (Schwartz, 2012, pp. 5-6).

Schwartz (1991) argues that people tend to endorse all personal values to some degree, but prioritize them differently. The process of value prioritization makes certain organization attributes more personally relevant to job seekers than others. For example, someone who prioritizes self-enhancement might rate

organizations that provide employees with generous financial remuneration, and opportunities for training advancement, as more attractive than organizations that do not. Alternatively, a job seeker who prioritizes self-transcendence might be more attracted to organizations with a strong commitment to corporate social responsibility.

To date, several studies have assessed how personal values predict job seekers' and current employees' perceptions of organization attractiveness. In an early study, Cable and Judge (1994) hypothesized that certain types of pay systems would be generally preferred over others, and that different types of job seekers would prefer different pay systems.

They found that job seekers, overall, preferred organizations that offered high pay, flexible benefits, pay based on individual performance, and fixed pay that was not contingent on the overall performance of the organization. Consistent with the pay-person fit hypothesis, they also found that job seekers with stronger materialist values were particularly attracted by high pay levels, whereas those with stronger collectivist values were more opposed to pay systems that rewarded individual as opposed to group performance.

More recently, Bridoux et al. (2016) conducted a study assessing the trade-offs stakeholders are willing to make when deciding to associate with a firm (e.g., by purchasing a product from the firm or seeking employment there). They found that stakeholders who scored higher on self-transcendent values were more willing to trade-off personal material benefits to secure improved conditions for suppliers from developing nations. In contrast, stakeholders with stronger self-enhancement values were more attracted to firms that favoured their own in-group. The current study extends previous research by examining the interplay between a much broader range of workplace attributes and personal values on perceptions of organization attractiveness.

The Current Study

This study employed a policy capturing methodology to determine which

workplace attributes are the most important drivers of perceived attractiveness of organizations in a sample of Australian job seekers. Utilizing PO fit theory (Kristof, 1996) and multi-level modeling (Raudenbush & Bryk, 2002), it also evaluated whether the magnitude of predictive effects varied as a function of job seekers' values. This study extends previous work by examining the attractiveness of different types of positive work outcomes and how job seekers with different values prioritize these outcomes.

Based on research conducted using the EAS (Berthon et al., 2005), and meta-analyses by Chapman et al. (2005) and Uggerslev et al. (2012), we predicted that organizations that support positive workplace outcomes related to economic, development, interest, social, application, and environmental values would be more attractive than organizations that do not support these values (Hypothesis 1). Based on the effect sizes presented in the meta-analyses, we predicted that organization support for positive employee relations (social value) would be a particularly strong driver of perceived attractiveness (Hypothesis 2). Challenging and interesting work (interest value), personal and career development (development value), and pay and promotion opportunities (economic value), would be reliable but weaker predictors of attractiveness than social value (Hypothesis 3). Given previous findings that commitment to positive societal and environmental outcomes are stronger predictors of perceived organization attractiveness than promotion opportunities and pay (Aiman-Smith et al., 2001; Greening & Turban, 2000), we predicted the attractiveness of both application value (Hypothesis 4) and environmental value (Hypothesis 5) would be stronger than economic value, interest value, and development value.

Based on PO fit theory and research (Kristof-Brown, Zimmerman & Johnson, 2005), we predicted that job seekers' self-transcendent and self-enhancement values would moderate the predictive effects of workplace attributes on perceived attractiveness. Specifically, organizations with strong commitment to supporting social, application and environmental outcomes would be perceived as more attractive by job seekers with stronger self-transcendent values, relative to those with weaker self-transcendent values (Hypothesis 6). Organizations committed to

supporting positive economic, interest, and development outcomes would be perceived as more attractive to job seekers with stronger self-enhancement values relative to those with weaker self-enhancement values (Hypothesis 7).

Methods

Participants

A sample of 400 Australian adults, recruited from a Qualtrics™ (Provo, UT) online panel, participated in this study. At the time of recruitment, all participants indicated that they were employed full-time, but looking to change jobs in the next 12 months (assessed by a screening question at the beginning of the survey). Close to two-thirds of participants were women (62%). Ages ranged from 19 to 75 years: 18-24 (6%), 25-34 (19.5%), 35-44 (30%), 45-54 (23%), 55-64 (16%), and 65+ years (5.5%). The sample included a broad range of education levels: less than year 10 (<1%), year 10 high school (4%), year 12 high school (10%), vocational education training certificate (15%), diploma or advanced diploma (13%), graduate diploma or bachelor degree (43%), and postgraduate university degree (16%).

Procedure

The survey was developed and delivered using the Qualtrics™ online survey platform. Prior to data collection, the host institution's Human Research Ethics Committee reviewed and approved the project. The surveys were administered between 26 June and 13 July, 2017. All participants received a small payment, administered by Qualtrics™, after completing the survey. The first part of the survey, immediately following the screening question, assessed demographics and personal value orientations. Each participant then read a random selection eight descriptions of organizations (selected from 64 in total), which varied all possible combinations of six attributes relevant to job search (e.g., salary, opportunities for career development, environmental policies, etc.). Effective policy capturing design requires enough scenarios and cues for stable estimates, but not too many for respondents to become bored or fatigued (Aiman-Smith et al., 2001). For continuity,

the six attributes were presented in the same order in each organization description. After reading each description, participants completed five items that assessed how attracted they were to the organization as a potential employer. A central aim of the study was to assess whether certain types of work environments would be perceived as more attractive, depending of participants' values. Details about the experimental stimuli and measures are presented below.

Manipulations and Measures

Organization attributes.

Based on the EAS (Berthon et al., 2005), we created 64 unique descriptions of organizations that varied on six dichotomous attributes reflecting the degree to which the organization: (a) provided a good salary and promotion opportunities (economic value); (b) supported employees' personal and career development (development value); (c) possessed a reputation for being exciting and innovative, encouraging creativity, and providing a challenging work environment (interest value); (d) provided a positive and pleasant social environment for employees (social value); exhibited a strong commitment to customer focus, social and racial equality, and operating in a manner that supports society (application value); and (f) had strong pro- environmental policies and procedures, and encouraged environmentally sustainable practices (environmental value). The first five attributes were based on five facets of the EAS (Berthon et al., 2005). Environmental value was a new attribute developed for this study to assess the degree to which prospective job applicants value organizations' commitment to environmental sustainability when considering employment options. The organization descriptions reflected all possible combinations of the attributes, ensuring that the attributes were all orthogonal (uncorrelated). A summary of the high and low descriptors for each organizational attribute is presented in Table 4.1. Scenarios were created by combining the text presented in Table 4.1 in all possible combinations. No additional text was added, and all scenarios were constructed with text blocks in the same order (i.e., economic value first, followed by development, interest, social, application and environmental value).

Table 4.1 *High and Low Descriptors for Workplace Attributes (Based on Employer Attractiveness Scale Dimensions)*

Predictor	Low variant	High variant
Economic value	The organization offers average salary and promotion opportunities.	The organization offers above-average salary and promotion opportunities.
Development value	The organization has few internal programs to support employee personal and career development.	The organization has many internal programs to support employee personal and career development.
Interest value	The organization has a reputation for being conservative and traditional. It has well-developed policies and procedures to guide employee actions, and offers a highly predictable work environment.	The organization has a reputation for being exciting and innovative. It encourages employees to think creatively, and provides a challenging work environment where employees face new problems each day.
Social value	The organization has a reputation for providing a somewhat negative and unpleasant social environment for its employees.	The organization has a reputation for providing a positive and pleasant social environment for its employees.
Application value	The organization does not have a strong customer focus. Its primary aim is to maximize returns to shareholders. It does not believe that corporations should publicly comment on issues such as social and racial equality.	The organization has a strong customer focus. It aims to balance profitability with operating in a manner that benefits society. It publicly supports social and racial equality.
Environmental value	Profitability is at the heart of this organization's business model. It does not have a well-developed set of environmental policies and procedures. It does not encourage employees to adopt environmentally sustainable practices at work.	Environmental sustainability is at the heart of this organization's business model. It has a well-developed set of environmental policies and procedures. It encourages employees to adopt environmentally sustainable practices at work.

Organization attractiveness.

Following the presentation of each description, organization attractiveness was assessed as the extent to which participants felt attracted to the organization and intended to pursue employment with that organization. Using multi-level modeling (Raudenbush & Bryk, 2002) participants' reactions to each organization description were assessed as organization attraction and job pursuit intention with five items used by Aiman-Smith et al. (2001). Representative items include, "This would be a good company to work for" and "I would like to work for this company" for organization attraction, and "I would actively pursue obtaining a position with this company" and "I would accept a job offer from this company". All responses were measured using a 7-point scale (1 = *very unlikely*, 7 = *very likely*). An overall attractiveness scale was computed by taking the mean of all attraction and job-pursuit items. Cronbach's alpha for the scale was .98.

Self-transcendence and self-enhancement values.

Participants' personal values were assessed by the self-transcendence (15 items) and self-enhancement (9 items) subscales of the most recent version of the Portrait Values Questionnaire (Schwartz et al., 2012). All items were comprised of brief, gender-matched portraits portraying the motivation or aspirations of a fictitious person (e.g., "It is important to her to care for nature" and "It is important to her to be wealthy"). Participants rated how similar they are to the person portrayed in the portrait on a 6-point scale (1 = *not like me at all*, 6 = *very much like me*). Scores for self-transcendent and self-enhancement value orientations were computed by taking the mean of relevant items identified by Schwartz (2012). Self-transcendence was computed by taking the mean scores across 15 items assessing universalism and benevolence ($\alpha = .88$), and self-enhancement was computed as the mean of nine items assessing power and achievement ($\alpha = .87$).

Results

Descriptive Statistics

Means, standard deviations, and intercorrelations for organization attractiveness, self-enhancement, and self-transcendent values were examined using SPSS V25. On average, participants reported they were moderately attracted to organization attributes as presented in the scenarios with the mean on the organization attractiveness measure falling above the midpoint (4.22 on a 1 to 7 scale, $SD = 1.78$). The sample mean on the self-enhancement scale (3.38, $SD = .93$) fell just below the midpoint on the 1 to 7-point scale, and the mean for self-transcendence (4.77, $SD = .63$) fell above the midpoint. Self-enhancement and self-transcendent values were weakly correlated ($r = .09$, $p = .07$).

Workplace Attributes Predicting Job Seekers' Perceptions of Organization Attractiveness

We used policy capturing and multilevel modelling to test our hypotheses. Policy capturing is a method used in applied psychology to investigate the associations between people's judgements and cues in the environment used to make those judgements (Cooksey, 1996). The present study explored which workplace attributes job seekers use when constructing judgements about the attractiveness of organizations as potential employers. Multilevel modelling is a highly flexible, regression-based statistical strategy for quantifying the magnitude of the relationship between environmental cues and judgements. It is specifically designed to analyse data with hierarchical or nested structures. Given that each participant in the study provided attractiveness judgements for eight hypothetical workplaces, participants' judgements (level of organization attraction and job pursuit intention) were nested within their reactions to each organization description presented.

In the Level 1 (within-person) analysis, regression equations were created for each participant using attractiveness as the outcome variable and the six organization attributes from the scenarios as predictors (i.e., economic value, development value,

interest value, workplace value, application value, and environmental value). This enabled the study to determine which organization attributes predicted higher ratings of perceived attractiveness. Each of the organization attributes were coded 1 for the low condition and 2 for the high condition.

The Level 2 (between-person) analysis involved regressing the intercepts and beta coefficients from the Level 1 analysis on participants' scores on self-enhancement and self-transcendent values. The Level 2 analysis assessed whether the relations between organization attributes and attractiveness decisions varied systematically as a function of pre-existing personal values. In this study, all policy capturing analyses were conducted using HLM 6 (Raudenbush & Bryk, 2002), using restricted maximum likelihood estimates and robust standard errors. For all analyses, a conservative α cut-off of $p < .01$ was adopted.

Unconditional model

An initial unconditional model (i.e., no predictors at within-person or between-person levels) divided the total variance in organization attractiveness judgments into within and between person components. The intraclass correlation computed from the unconditional model was .40, indicating that 40% of the variance in attractiveness was attributable to individual differences (between-subjects variance). In other words, irrespective of the specific workplace attributes presented in the organization descriptions, substantial variation in perceived attractiveness judgements across participants was evident. The remaining 60% of the variance in the data set reflected within-subjects variance across the six attributes, indicating substantial variation within participants depending on the specific array of workplace attributes in each organization description. Given that the intraclass correlation was large, multi-level analysis was an appropriate strategy (Garson, 2014).

Level 1 model: Which workplace attributes predict organization attractiveness?

The Level 1 analysis involved regressing organization attractiveness (the criterion variable) on six dichotomous predictors reflecting low or high economic, development, interest, social, application, and environmental value. Average

unstandardized coefficients and robust standard errors for the intercept and each of the workplace attributes are presented in Table 4.2. The intercept value of 4.25 ($SE = .05$) indicates that, on average, participants' organization attractiveness judgements fell just above the midpoint on the 6- point scale. All six attributes significantly predicted participants' attractiveness judgements, with social, environmental, and application value being the three strongest predictors. That is, providing positive social environments, strong environmental policies and practices, and a commitment to customer and societal welfare were the strongest drivers of job seekers' judgements of organization attractiveness.

Table 4.2

Level 1 Analysis: Workplace Attributes Predicting Organization Attractiveness

Variable	Coefficient	99% CI [LL, UL]	SE	t (399)
Intercept	4.22		.051	82.35**
Economic value	0.22	0.10, 0.34	.046	4.75**
Development value	0.29	0.17, 0.41	.046	6.29**
Interest value	0.18	0.06, 0.30	.048	3.73**
Social value	1.50	1.32, 1.68	.069	21.91**
Application value	0.65	0.51, 0.79	.053	12.36**
Environmental value	0.71	0.55, 0.87	.061	11.66**

** $p < .001$ Coefficients were computed using HLM's restricted maximum likelihood algorithm and are interpreted as average unstandardized beta coefficients. Given that the number of observations per participant was small, we computed the effects for each predictor using a random intercept and coefficient model in which all predictors were fixed, other than the one being tested. This involved re-running the model six times, once for each predictor. All predictors in the model were grand mean centred. All significance tests were based on robust standard errors.

Level 2 model: Do personal values moderate the effects of workplace attributes on perceived attractiveness?

A major aim of the study was to determine whether the degree to which workplace attributes predict perceived organization attractiveness varies as a function of job seekers' personal values. As previously stated, the PO fit hypothesis suggests that organizations with work environments that match workers' personal values should be perceived as more attractive. To address this, we conducted a Level 2 analysis in which the strength of job seekers' self-enhancement and self-transcendent values were used to predict the intercepts and beta coefficients associated with each of the organization attributes from the Level 1 analysis. Significant Level 2 effects are referred to as cross-level interactions because they indicate the magnitude of the relations between the Level 1 predictors (workplace attributes) and the criterion (perceived organization attractiveness). Significant cross-level indirect effects show the extent that perceptions of attractiveness vary as a function of the value of Level 2 predictors (personal values). To aid in the interpretation of cross-level interactions, all significant Level 2 effects were plotted using HLM's graph module. A summary of the Level 2 analysis is presented in Table 4.3. Plots of the interactions are presented in Figure 4.1.

Examination of the intercept analyses indicated that participants with higher self-enhancement values were significantly more attracted to the organizations described in the study than participants with lower self-enhancement values. The opposite pattern was evident for self-transcendence. Participants with higher self-transcendence values were less attracted to the organizations, overall, than participants with low self-transcendence values, although this effect just failed to reach statistical significance ($p = .01$).

Examination of the cross-level interactions revealed significant effects between personal values and workplace attributes related to social, application, and environmental value. All the interactions involving self-transcendence followed the same general pattern (see Figure 4.1, top row). Organizations with high social, application, and environmental value were perceived as being highly attractive by all

participants (irrespective of whether they had weak or strong self-transcendence values), with very little differentiation between the two groups. However, participants with high self-transcendence values were more sensitive to the absence of these three organizational attributes. Consistent with the PO fit hypothesis, high 'self-transcenders', relative to low 'self-transcenders', rated organizations that scored low on these attributes as much less attractive.

Interactions involving self-enhancement took a slightly different form than for self-transcendence. Overall, organizations, regardless of whether they had high or low social, application and environmental value were perceived as more attractive by participants with strong self-enhancement values than those with weak self-enhancement values. However, high self-enhancers were less sensitive to the absence of these three attributes than low self-enhancers. That is, whereas high self-enhancers perceived organizations with low social, application, and environmental value to be only somewhat less attractive compared to organizations that scored high on these attributes, low self-enhancers perceived organizations with low social and application value as significantly less attractive. Low self-enhancers also perceived organizations with low environmental value as less attractive, although this interaction effect failed to reach statistical significance ($p = .06$).

Table 4.3

Level 2 Analyses: Job Seekers' Personal Values Predicting Level 1 Effects

Effect	Coefficient	99% CI [LL, UL]	SE	t(397)
<i>L1 intercept (mean attractiveness)</i>	4.22		.046	87.06**
Self-enhancement	0.46	0.32, 0.60	.053	8.80**
Self-transcendent	-0.17	-0.37, 0.03	.078	-2.53
<i>Economic value</i>				
Self-enhancement	-0.04	-0.17, 0.09	.049	-.77
Self-transcendent	-0.06	-0.27, 0.15	.080	-.78
<i>Development value</i>				
Self-enhancement	-0.10	-0.21, 0.01	.044	-2.31
Self-transcendent	0.06	-0.11, 0.23	.066	.86
<i>Interest value</i>				
Self-enhancement	-0.04	-0.17, 0.09	.049	-.91
Self-transcendent	0.09	-0.10, 0.28	.074	1.16
<i>Social value</i>				
Self-enhancement	-0.46	-0.64, -0.28	.071	-6.50**
Self-transcendent	0.37	0.13, 0.61	.093	4.00**
<i>Application value</i>				
Self-enhancement	-0.23	-0.36, -0.10	.050	-4.47**
Self-transcendent	0.28	0.07, 0.49	.082	3.46**
<i>Environmental value</i>				
Self-enhancement	-0.13	-0.28, 0.02	.060	-2.13
Self-transcendent	0.58	0.40, 0.76	.071	8.01**

* $p < .01$, ** $p < .001$. Coefficients were computed using HLM's restricted maximum likelihood algorithm and are interpreted as average unstandardized beta coefficients. Given that the number of observations per participant was small, we computed the effects for each predictor using a random intercept and coefficient model in which all predictors were fixed, other than the one being tested. This involved re-running the model six times, once for each predictor. All Level 1 and Level 2 predictors in the model were grand mean centred. All significance tests were based on robust standard errors.

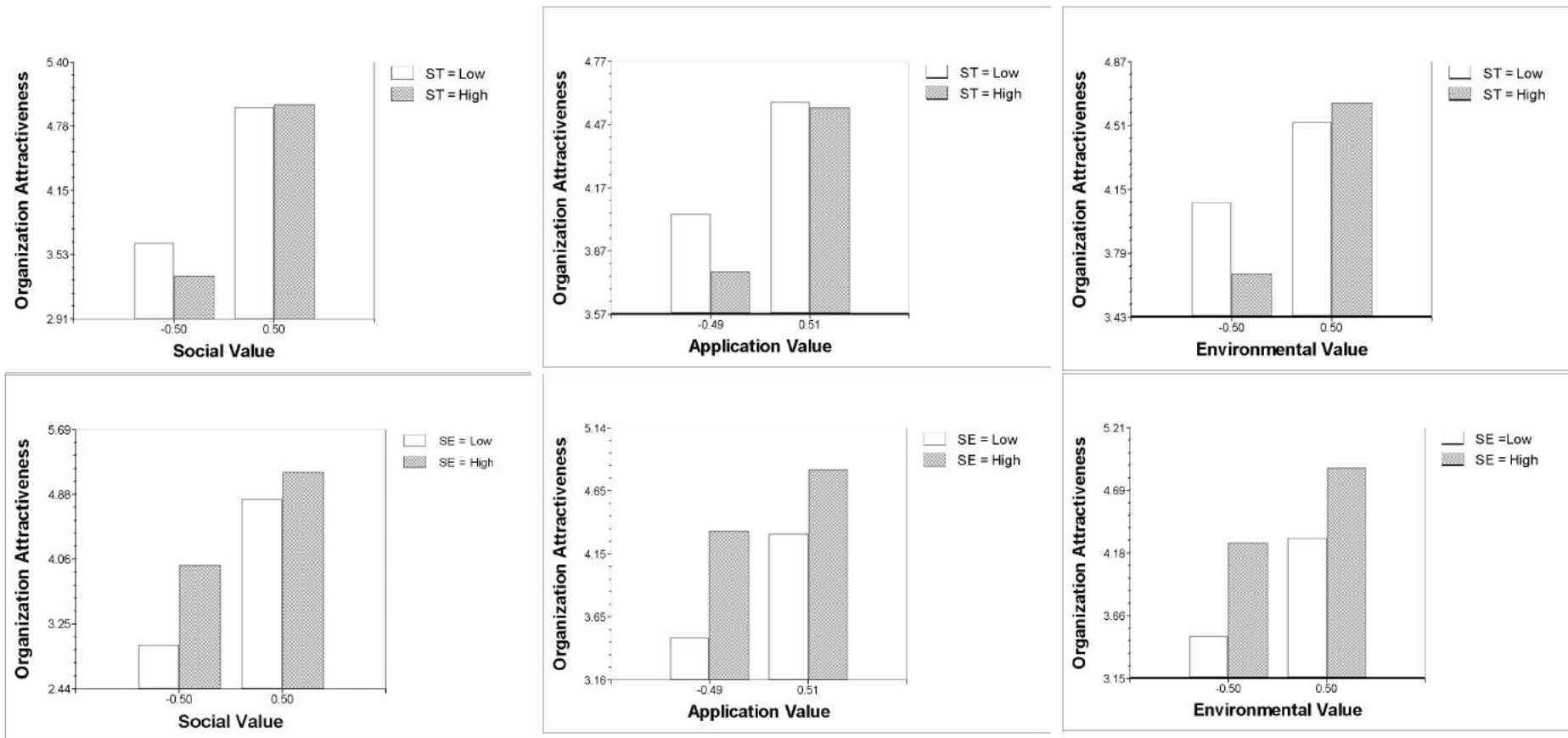


Figure 4.1. Cross-level interactions between personal values and workplace attributes predicting job-seekers' perceptions of organizational attractiveness. Note that the cross-level interaction between environmental value and self-enhancement failed to reach statistical significance ($p = .06$), but exhibited the same general pattern as the social value and application values interactions with self-enhancement.

Discussion

This study investigated which workplace attributes most strongly predict perceptions of organization attractiveness in a sample of Australian job seekers, and whether the magnitude of these predictive effects vary as function of job seekers' personal values. We found workplaces with attributes reflecting higher levels of economic, development, interest, social, application, and environmental value were perceived as more attractive than workplaces lacking these attributes. We also found that the strength of the predictive effects for social, application, and environmental value varied as a function of job seekers' personal values. This finding is broadly consistent with PO fit theory (Kristof, 1996), which suggests that matches between workplace attributes and job seekers' personal values should produce higher ratings of perceived organization attractiveness. These findings are explored in more detail in the sections that follow, along with comments regarding the limitations of the study, and recommendations for future research.

Which Workplace Attributes are the Strongest Predictors of Organization Attractiveness?

When job seekers decide to apply or not apply for a job, they often do so based on how well potential workplaces stack up on key dimensions related to remuneration, corporate social responsibility, intellectual stimulation, etc. A central aim of this study was to determine which of six workplace attributes, based on the Employee Attractiveness Scale (Berthon et al., 2005), are the primary drivers of job seekers' perceptions of organization attractiveness. Consistent with Hypothesis 1, organizations that support positive workplace outcomes related to economic, development, interest, social, application, and environmental values were judged as more attractive than organizations that do not support these values. Also as hypothesized, the strongest predictors of perceived attractiveness were social value (providing positive social environments; Hypothesis 2), application value (commitment to customer and societal welfare; Hypothesis 4), and environmental value (strong environmental policies and practices; Hypothesis 5), all of which were significantly stronger predictors of perceived organization attractiveness than

economic value (pay and promotions), development value (supporting personal and career development), and interest value (provision of challenging and interesting work), providing support for Hypothesis 3. Of all the workplace attributes evaluated as part of this study, social value was by far the strongest predictor of perceived organization attractiveness, with a coefficient more than twice the size of the next highest predictor, environmental value. This result is consistent with Uggerslev et al.'s (2012) meta-analysis which also found positive employee relations and treatment to be the strongest predictor of attractiveness.

In the current study, environmental value (reflecting corporate environmental responsibility) was the next strongest predictor of attractiveness, followed by application value (reflecting corporate social responsibility). Beta coefficients for environmental and application value, while roughly half the size of social value, were each about three times larger than the predictive effects for economic, development, and interest value. These findings support previous research highlighting the importance of having highly visible corporate social and environmental responsibility strategies (Dögl & Holdbrügge, 2014; Greening & Turban, 2000). Not only are these strategies good for society and the environment, they are also attractive to prospective employees and customers.

Our findings also support previous research which suggest that while good pay and promotion opportunities are significant predictors of perceived organization attractiveness, their effect sizes are modest (Chapman et al., 2005; Uggerslev et al., 2012). This finding supports the meta-analysis by Uggerslev et al. (2012) in which pay ($r = .23$), promotion ($r = .35$) and development ($r = .49$) each were statistically reliable, though not particularly strong predictors of attractiveness. Our results also mirror the overall pattern of findings in Uggerslev et al.'s (2012) meta-analysis, in which the effect size for training and development opportunities (development value) was stronger than for challenging and stimulating work environments (interest value), which in turn was stronger than pay (economic value). When job seekers evaluate prospective employers, pay rates are important but they are not the predominant driver of attractiveness judgements. Other factors such as providing positive social environments and commitments to corporate social and

environmental responsibility appear to be much more important.

Fit between Workplace Attributes and Job Seekers' Personal Values

A major aim of the study was to determine whether the effects of specific workplace attributes on perceived organization attractiveness would vary as a function of job seekers' personal values. Based on PO fit theory (Kristof, 1996), we hypothesized that organizations would be perceived as particularly attractive when workplace attributes matched job seekers personal values. More specifically, we predicted organizations with strong commitment to supporting social, application, and environmental outcomes would be perceived as more attractive by job seekers with stronger self-transcendent values relative to those with weaker self-transcendent values (Hypothesis 6). Organizations committed to supporting positive economic, development, and interest outcomes would be perceived as more attractive to job seekers with stronger self-enhancement values relative to those with weaker self-enhancement values (Hypothesis 7).

Our results only partially supported these hypotheses. With respect to Hypothesis 6, we found that organizations providing high social, application, and environmental value were perceived to be quite highly attractive for all respondents regardless of their weak or strong self-transcendent value orientation. However, differences emerged when workplace attributes related to social, application, and environmental value were absent. Job seekers with stronger self-transcendent values were more sensitive to the absence of these attributes, judging organizations without these attributes as much less attractive than organizations that had them. This suggests that when it comes to PO fit, the absence of key attributes that job seekers value may be a more important determinant of decisions not to pursue a specific job than the presence of workplace attributes they do not value. For example, job seekers who score low on self-transcendence would still find attractive a workplace that fosters strong positive social ties and supports corporate social and environmental responsibility even if they do not highly value these attributes. However, a job seeker who values these same workplace attributes would find their absence to be off-putting and potentially intolerable.

Our findings on PO misfit support previous research. For example, the study on pay preferences by Cable and Judge (1994) found that among all the interactions, the strongest interaction, reflecting PO misfit, was for collectivism and individual pay ($r = -.37$). This negative relationship was much stronger than the next closest interaction, which was a positive interaction for risk aversion and fixed pay ($r = .27$) reflecting PO fit.

In terms of Hypothesis 7, we found no evidence to support our prediction that job seekers with stronger self-enhancement values, relative to those with weaker self-enhancement values, would perceive organizations committed to strong economic, development, and interest values to be more attractive. No significant cross-over interactions between self-enhancement values and these three workplace attributes were present, indicating that organizations that provided high economic, development, and interest value (relative to those that did not) were perceived as more attractive to all respondents regardless of their value orientations. However, as noted earlier, it is important to acknowledge these effects were modest in magnitude.

Although not included in our a priori hypotheses, we did find significant cross-over interactions between self-enhancement values and workplace attributes related to positive social environments and corporate social and environmental responsibility (i.e., social, application, and environmental value, in EAS terminology). These interactions indicated that organizations with high or low social, application and environmental attributes were perceived as more attractive by participants with stronger self-enhancement values than those with weaker self-enhancement values. However, low self-enhancers were more sensitive than high self-enhancers to the absence of social, environmental, and application value, rating organizations that scored low on social and application value as being significantly less attractive and low environmental value as narrowly missing significance (at $p > .01$). Our findings support findings by Bridoux et al. (2016) who found that individuals with a high other orientation (self-transcendent values) were more likely to want to associate with an organization that displayed high CSR.

Practical Implications

The current study provides general guidance to businesses about increasing the attractiveness of their public profile and brand. Many organizations already have such initiatives in place. However, for the most part they mainly target potential consumers or investors. Initiatives aimed at potential employees are less common. Our results indicate that highlighting corporate social and environmental responsibility and supportive collegial working environments may also be an important tool for recruiting participants. For example, a multi-national manufacturer of boots, shoes, and clothing claims an “unwavering commitment to environmental and social responsibility” (DeAcetis, 2019) and pays its employees to volunteer on projects for “underserved communities” such as Urban- Greening-Los-Angeles. On its website, the business promotes the multi-million-dollar initiative as being a “huge benefit for us as a company” as it “brings us together as a team (Timberland, 2020). The website promotes employees as Earthkeepers, highlighting their activities, background, and motivation to enact the company’s values. One employee said she lives “Timberland’s purpose every day” in her personal life. This strategy is supported in an article on employer branding, in which Ambler and Barrow (1996) argue that businesses should focus broadly when aiming to build brand loyalty and target prospective and current employees as well as consumers and investors.

Organizations can also make better use of new online tools, such as the CSRHUB (2020), to benchmark their progress on CSR, and use this comparative information to attract high quality staff. Currently, 18,958 companies from 143 countries have signed up to CSRHUB, indicating social responsibility is a priority for many organizations. The program is voluntary, so likely the organizations are leaders not laggards in CSR implementation. The category on ‘employees’ collects data on diversity, labour relations and labour rights, compensation, benefits, and employee training, health and safety and evaluation. Evaluation of this category has a top- down focus by assessing, for example, “robust delivery (EEO-1) programs and training”. Likewise, the subcategory compensation and benefits also indicates only a management perspective in evaluation by covering “the company’s capacity to increase its workforce loyalty and productivity through rewarding, fair, and equal

compensation and financial benefits” (CSRHUB, 2020). It appears that investors are the target of this reporting, however, employees could be too by energizing the reports with the employee perspective. Doing this has the potential to impact the organization’s image, not only for workers but also consumers and investors.

Overall, the three big programs that organizations should develop and then emphasize when refining and marketing their brands are that they provide a positive social working environment, are committed to positive environmental outcomes, and to customer and societal well-being. Other research has identified a long list of factors that predict attractiveness, but our study show that these three features are particularly important.

Limitations and Future Research.

This study had several limitations that should be considered when interpreting our findings. First, our study relies on self-reported data provided by job seekers recruited from a non-probability sample. Although we employed a large, diverse national sample, findings cannot presume to be generalizable to the broader Australian population or to other countries. To evaluate the robustness of our findings, we recommend additional studies using a variety of samples, including those from other countries and cultures and recruited in ways other than through an online panel, and with more balanced gender distributions.

A second limitation is that our study focused on only six organization attributes, five derived from the core dimensions identified by Berthon et al. (2005) in their work developing the EAS, and one additional dimension related to corporate environmental responsibility. The EAS encompasses a broad range of attributes, from pay to positive social interactions. However, dimensions such as work / life balance, and the organization’s image and familiarity to the applicant, which have been shown to be significantly associated with perceived organization attractiveness, are not covered in our study. Previous research has shown that recruiter behaviors and characteristics of the recruitment processes significantly influence attraction (Chapman et al., 2005; Uggerslev et al., 2012). Future research should systematically

examine these and other attributes.

Third, the magnitude of the difference between the high-low variants used in our scenarios were not exactly equal across the organizational attributes assessed in the study. For example, whereas social value conditions varied from negative and unpleasant (low) to positive and pleasant (high), economic value conditions varied from average pay and conditions (low) to above average pay and conditions (high). This likely contributed to the stronger Level 1 effects exhibited by the social value predictor.

Finally, concerning individual difference factors, we focused on two types of personal values: self-transcendence and self-enhancement. Other personal characteristics may act as potential moderators and should be investigated in subsequent research. For example, a recent meta-analysis on individual-level differences and organization attraction found that applicant ability, personality, and experience were more important predictors of attraction than race, gender, and age (Swider, Zimmerman, Charlier, & Pierotti, 2015). A framework developed by Ambler and Barrow (1996) categorizes job and organization attributes based on functional, economic, and psychological benefits associated with employment. This framework facilitates the systematic study of personal characteristics and psychological processes that might influence perceptions of organization attractiveness for both current and future employees.

Conclusion

The study combined person-organization fit theory and a policy capturing methodology to determine (a) which workplace attributes are the strongest predictors of perceived organization attractiveness in a sample of Australian job seekers, and (b) whether the magnitude of these predictive effects varied as a function of job seekers' personal values. The three strongest drivers of perceived organization attractiveness were the provision of positive social environments, commitment to customer / societal well-being, and pro-environmental responsibility. These drivers were significantly more impactful than pay rates, opportunities for personal and career development, and stimulating / innovative work environments. We also found

that personal values moderated the impact of workplace attributes and perceived attractiveness of organizations. In particular, job seekers with strong self-transcendence values and weak self-enhancement values were most sensitive to the absence of social, environmental, and application value, downrating organizations that scored low on these attributes. Overall, our findings highlight the importance of understanding both workplace conditions and the values of job seekers in the recruitment process. Noncollegial workplaces that undervalue customer, societal, and environmental outcomes are less attractive to job seekers, and this effect is particularly pronounced for those with who value “bigger than self” outcomes.

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We, the Research Master/PhD candidate and the candidate's Principal Supervisor, certify that the following text, figures and diagrams are the candidate's original work.

Type of work	Page number/s
Text	102 - 132
Table 4.1 High and Low Descriptors for Workplace Attributes (Based on Employer Attractiveness Scale Dimensions)	114
Table 4.2 Level 1 Analyses: Workplace Attributes Predicting Organization Attractiveness	119
Table 4.3 Level 2 Analyses: Job Seekers' Personal Values Predicting Level 1 Effects	122
Figure 4.1 Cross-level interactions between personal values and workplace attributes predicting job-seekers' perceptions of organizational attractiveness	123

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Chapter 5

General Discussion and Conclusion

This thesis had two overarching goals. The first aim was to investigate the potential impacts of work climate on employee motivation, workplace engagement, and pro-environmental behavior (PEB). The second aim was to examine how personal values interact with organizational values in a work context and show the specific work environments in which higher levels of motivation and engagement are most likely. Understanding the potential for work climate to influence employee motivation and PEB is vital to the successful implementation of organization initiatives to increase PEB. Additionally, understanding the potential for various work climates to influence workplace engagement is critical to corporate performance (Macey & Schneider, 2008).

Person-organization (PO) fit (Kristof, 1996) and self-determination theory (SDT; Deci & Ryan, 2000) were the main theoretical frameworks used in this program of research in order to investigate work-related motivation and behavior. Moreover, the literature on work climate, PEB, personal values, and organization attractiveness were used to address these three principal aims:

(1) The literature on SDT, work climate, and workplace and non-workplace PEB were reviewed in order to identify gaps in current knowledge and appropriate measures for assessing relationships between work climate (pro-environmental work climate and employee autonomy support) and employees' motivation for engaging in PEB, as well as their PEB inside and outside the workplace. Using moderated-mediation analysis, Study 1 examined: (a) the effects of pro-environmental climate on employees' autonomous and controlled motivation for PEB at weak, moderate, and strong levels of supervisory support for employees' work tasks, and (b) both types of motivation (autonomous and controlled) as mediators of the relationships between work climate and employee PEB.

(2) Theory and research on PO fit, SDT, personal environmental values, pro-environmental work climate, and employee engagement were reviewed to identify

knowledge gaps and appropriate measures to assess the relationships between pro-environmental work climate, and employees' motivation and work and job withdrawal. Study 2 examined high green-person-organization fit (GPO; the extent to which an organization's commitment to pro-environmental outcomes is congruent with its employees' environmental values). The study assessed whether high GPO predicts intrinsic need satisfaction and worker engagement. Using moderated mediation analysis, this study investigated: (a) the effects of pro-environmental climate on intrinsic need satisfaction at weak, moderate, and strong levels of employees' pro-environmental values, and (b) need satisfaction as a mediator of the relationships between pro-environmental climate and engagement at the same three levels of employee environmental values.

(3) Theory and research on PO fit, personal values, and organization attractiveness in recruitment were reviewed in order to identify knowledge gaps and appropriate measures to examine (a) which organization attributes are the strongest predictors of perceived organization attractiveness, and (b) whether the magnitude of the predictive effects vary as a function of job seekers' personal values. Policy capturing methodology and multi-level modelling were used in Study 3 to determine which organizational attributes job seekers focus on when forming their perceptions of the attractiveness of various organizations in the Level 1 (within-person) analysis. The moderating effect of personal values was assessed in the Level 2 (between-person) analysis.

A summary of the main findings and a discussion of theoretical and practical implications are presented in the sections that follow. The limitations of the current research and future research directions are discussed, and a final summary of the main conclusions is presented.

Main Findings and Theoretical and Practical Implications

Work Climate, Employee Motivation and Pro-Environmental Behavior (Study 1, Chapter 2)

Study 1, presented in Chapter 2, investigated how two aspects of work

climate (i.e., pro-environmental climate and employee autonomy support) might influence employees' autonomous and controlled motivation to engage in PEB. Previous studies have shown that autonomous motivation positively predicts workplace performance (Deci & Ryan, 2015) and non-workplace PEB (Pelletier et al., 1998). A central aim of Study 1 was to assess whether workplaces with climates that support high levels of autonomous motivation for PEB might not only foster high levels of workplace PEB but also lead to positive spillover effects by increasing non-workplace PEB. A conservative critical p-value of .01 and 99% confidence intervals were used for mediation and moderation tests. The findings showed that (1) autonomous motivation for PEB is a much stronger predictor of both workplace and non-workplace PEB than controlled motivation, and (2) employees with the highest levels of autonomous motivation were found in organizations with strong pro-environmental climates and moderate to high levels of autonomy support. Specifically, the effect of pro-environmental climate on employees' autonomous motivation depended on the level of autonomy support provided. Although pro-environmental climate significantly predicted autonomous motivation at low, moderate, and high levels of autonomy support, effects were strongest when autonomy support was high. The spillover analysis indicated that the effects of work climate on PEB may extend beyond the workplace, driven primarily by autonomous motivation, with controlled motivation playing a more limited role.

The results of Study 1 offer several conclusions that contribute to the literature on employee PEB (Norton, Parker, Zacher, & Ashkanasy, 2015; Pelletier & Aitken, 2014), employee motivation (Deci & Ryan, 2015; Gagné & Deci, 2005), and employee engagement (Macey & Schneider, 2008). First, the results provide evidence that the relationship between strong pro-environmental policies and procedures and higher levels of autonomous motivation for PEB is moderated by the extent to which supervisors support their workers' autonomy. Previous research has examined both pro-environmental climate and supervisor support as antecedents of employee PEB (Norton et al., 2015), and transformational leadership as an antecedent of employee motivation for PEB (Graves, Sarkis, & Zhu, 2013). However, support by supervisors or leaders as moderators of employee motivation or PEB had not been previously examined.

Earlier studies suggested that pro-environmental climate and supervisor support each might support PEB through different processes (Raineri & Paillé, 2016; Ramus & Steger, 2000). However, this had not been empirically tested. The findings in Study 1 showed that employees' autonomous motivation for PEB fully mediated the relationship between work climate and employee PEB, and the strength of the positive relationship between pro-environmental climate and autonomous motivation depends on the extent to which supervisors support workers' autonomy. This finding contributes to the literature on PEB and employee engagement.

Previous studies have examined job satisfaction (Spanjol, Tam, & Tam, 2015) and organization commitment (Raineri & Paillé, 2016) as mediators of work climate and PEB. Study 1 assessed employees' autonomous or controlled reasons for engaging in PEB as mediators of work climate and PEB. Previous studies in non-work contexts have shown that autonomous motivation is associated with higher levels of PEB engagement (Pelletier, Tuson, Green-Demers, Noels, & Beaton, 1998). In a recent model for employee PEB (Norton et al. (2015) suggested using autonomous and controlled motivation as mediators of work climate and PEB and proposed that it is important to distinguish between intrinsic and extrinsic reasons for employee PEB. Our findings empirically support their proposed model. Autonomous motivation is reflected in PEB through a high degree of individual internalization and volition. In contrast, controlled motivation is reflected in PEB through the regulation of consequences administered either by others (e.g., external rewards such as bonuses) or by individuals to themselves (e.g., feelings of guilt). Study 1 found that, compared with controlled motivation, autonomous motivation is a much stronger predictor of employee PEB.

Finally, we found that in organizations with strong pro-environmental climates and strong support for worker autonomy, employees reported higher levels of autonomous PEB motivation and, in turn, more frequent workplace and non-workplace PEB. This result suggests that certain aspects of work climate might be associated with positive spillover effects from workplace to non-workplace PEB. In a recent review of the literature, Truelove, Carrico, Weber, Raimi, and Vandenberg (2014) proposed that PEB spillover from a role-related behavior is most likely to

occur when the PEB is internally (as opposed to externally) motivated. Study 1 of this thesis provides the first evidence of this.

Future research is needed to validate our finding of a positive spillover effect from workplace to non-workplace PEB. For example, in the framework for PEB spillover effects, Truelove et al. (2014) propose that positive spillover is most likely to occur when (1) the behaviors in the primary and spillover domains are similar to each other, and (2) the spillover behaviors are relatively easy to perform. A scale with commensurate measures for workplace and non-workplace PEB is needed to test these hypotheses. Additionally, longitudinal studies should investigate changes in employee motivation and PEB over time.

The practical implications of these findings for employee PEB become apparent when considering whether organization initiatives to increase PEB are likely to generate employees' autonomous motivation for engaging in PEB. This could be done with interventions designed to give employees control over their own electricity use, recycling behavior, and so on. Employees' feelings of autonomy for their workplace PEB would encourage employees to explore environmental activities they find interesting and challenging. This, then, has the potential to support the internalization of environmental values, and to provide the motivational foundation for additional PEBs both inside and outside the workplace.

Green-Person-Organization (GPO) Fit and Worker Engagement (Study 2, Chapter 3)

Study 2, presented in Chapter 3, investigated whether GPO fit would positively predict employees' intrinsic need satisfaction and work engagement. Given that all hypotheses were directional, 90% confidence intervals and one-tailed significance tests were employed for the moderation and mediation analyses. The results showed that employees working in organizations with pro-environmental work climates reported higher levels of intrinsic need satisfaction and work engagement, and while the positive effects of pro-environmental work climates held for employees with weak, moderate, and strong pro-environmental values, the

relationship was particularly pronounced for employees with strong pro-environmental values; that is, when GPO fit was high. Importantly, the presence of a pro-environmental climate never became a negative predictor of employee motivation and engagement, even for employees with weak pro-environmental values. Intrinsic need satisfaction fully mediated the effect of pro-environmental work climate on employee engagement, and the magnitude of this mediation effect was stronger when GPO fit was high than when GPO fit was low.

These results offer several conclusions that contribute to the literature on positive work climates (Kuenzi & Schminke, 2009; Deci & Ryan, 2015), PO fit theory (Kristof, 1996) and SDT on work motivation (Deci & Ryan, 2015; Gagné & Deci, 2005). First, they provide preliminary evidence that a pro-environmental work climate is positively associated with employee motivation and engagement. This finding supports previous research on positive work climates – characterized as those that support positive societal outcomes such as climate for justice or ethical climates (Kuenzi & Schminke, 2009), or align with employees’ personal values and beliefs (Deci & Ryan, 2015). Previous research has linked positive climates to a range of workplace behaviors including organizational citizenship (Ehrhart, 2004) and the performance of both individuals (McKay, Avery, & Morris, 2008) and teams (Colquitt, Noe, & Jackson, 2002). The present finding suggests that these effects also apply to organizations with pro-environmental work climates. Second, our findings suggest that GPO fit may be a more important determinant of employee motivation and engagement than GPO misfit. Although GPO misfit weakened the positive effect of pro-environmental climate on worker experiences, it did not ever reduce employee engagement, even for employees with non-green value orientations. The effects of GPO fit in the present study, on the other hand, were all positive, and the higher the value congruence between organizations and workers, the greater the benefits. Finally, the finding of an indirect effect of GPO fit on employee engagement through employees’ intrinsic need satisfaction provides the first evidence that GPO fit affords the opportunity for employees to satisfy their intrinsic needs at work through feeling autonomous, competent, and by relating to others in the workplace. This, in turn, has a positive effect on employees’ work and job engagement.

The practical implications of these findings point to the potential for high GPO fit to boost employee motivation and engagement. Given previous research linking employee engagement to organizational success (Gagné & Panaccio, 2015), organizations should consider strategies for increasing GPO fit. This could be done by recruiting new employees based on person-organization-value-congruence and post-hire with training and workshops. Typically, recruiters use person-job fit to determine whether an applicant's knowledge, skills, and abilities fit with a specific job (Adkins, Russell, & Werbel, 1994). Instruments have also been designed to assess whether the job applicant and organization align on various values such as being aggressive, competitive, or supportive (O'Reilly, Chatman, & Caldwell, 1991). GPO fit might provide another concrete assessment of value congruence useful in recruitment, particularly for organizations introducing or expanding their pro-environmental policies and procedures. Research has shown that socialization and training activities can increase employees' perceptions of PO fit (Autry & Wheeler, 2005). Perceptions of GPO fit could be increased, for example, through workshops designed with the purpose of generating interest in environmental protection and supporting employees to integrate environmental tasks with their other work tasks. This might involve allowing employees and work groups to choose how they prioritize different actions aligned with corporate environmental goals (Ryan & Deci, 2000). Where misalignment in environmental values is identified, the purpose of training would be to support employees to internalize corporate environmental values, for example, with information about why the organization has adopted pro-environmental policies and procedures.

Person-Organization (PO) Fit and Organization Attractiveness (Study 3, Chapter 4)

When job seekers decide to apply (or not apply) for a job, their decision is often based on how well potential workplaces stack up on key dimensions related to remuneration, corporate social responsibility (CSR), intellectual stimulation, and so on. A central aim of Study 3, presented in Chapter 4, was to determine (1) which of six workplace attributes, based on the Employer Attractiveness Scale (EAS; Berthon,

Ewing, & Hah, 2005), were the strongest predictors of job seekers' perceptions of organization attractiveness, and (2) whether the magnitude of these effects varied as function of job seekers' personal values. Using multi-level modelling we examined cross-level interactions of the variables in our model. The within-person analysis at Level 1 revealed that workplaces with attributes reflecting higher levels of economic, development, interest, social, environmental, and application value were perceived as more attractive than workplaces lacking these attributes. Social value (i.e., providing a positive and pleasant social atmosphere for employees), environmental value (i.e., having strong pro-environmental policies and procedures, and encouraging environmental sustainability), and application value (i.e., exhibiting a strong commitment to customer focus, social and racial equality, and operating in a manner than supports society) were the three strongest predictors (Berthon et al., 2005). Of these, social value was by far the strongest predictor of perceptions of organization attractiveness, with a coefficient more than twice the size of the next highest predictor. In contrast, economic, development, and interest value were relatively weak predictors of perceptions of attractiveness. The between-person analysis at Level 2 revealed that the strength of perceptions of attractiveness for social, environmental, and application values varied as a function of job seekers' self-transcendence and self-enhancement values. Specifically, participants with strong self-transcendence and weak self-enhancement values were most sensitive to the absence of social, environmental, and application value, downrating organizations that scored low on these attributes. This finding is broadly consistent with PO fit theory, which suggests that matches between workplace attributes and job seekers' personal values should produce higher ratings of perceived organization attractiveness.

The findings of Study 3 point to three applications that organizations should develop and then emphasize when refining and marketing their brands. These include: (a) providing a positive social working environment, (b) being committed to positive environmental outcomes, and (c) being committed to customer and societal well-being. Many organizations already have these initiatives in place (e.g., CSRHUB). However, for the most part, they mainly target potential consumers and investors. Initiatives aimed at potential employees are less common. Our results

indicate these programs may also be an important tool in recruitment. This strategy is supported in an article on employer branding, in which Ambler and Barrow (1996) argue that businesses should focus broadly when aiming to build brand loyalty and target prospective and current employees as well as consumers and investors.

For many organizations, developing or enhancing an employer brand could involve asking current and prospective employees what they think about existing corporate programs. Doing this has the potential not only to inform strategy, but also attract new employees. For example, a multi-national manufacturer of boots, shoes, and clothing pays its employees to volunteer on community development and local greening projects such as Urban-Greening-Los-Angeles (Timberland, 2020). To date, employees have chalked-up over one million hours. The company website highlights the program and employees' activities as well as their background, and motivation to enact the company's values. However, currently, there is no mention of the program in the careers and employment section of the company's website (Timberland, 2020). An employment website (Indeed, 2020) only shows ratings from employees on the pros and cons of Timberland's culture and from job candidates on the interview process. According to the findings of Study 3, information on the million-hours-program should be emphasized, and could easily be added to these websites, in order to attract high quality staff. Including this information could also have the added benefit of benchmarking employees' progress with the program.

Strengths, Limitations, and Future Research

The three studies presented in this thesis rely on self-reported data provided by individuals recruited from non-probability samples of employees and job seekers in Australia. To evaluate the robustness of the findings in these empirical chapters, additional studies are recommended using a variety of samples, including those from other countries and cultures and recruited in ways other than through online panels. Collecting information using more objective measures of work climate (e.g., independent analysis of organizational policies) and employee engagement (e.g., data from human resources on employee recruitment, performance, and turnover) is

also recommended.

Another limitation is that both Studies 1 and 2 employed a correlational research design. Although mediation analysis implies a causal explanation (Hayes, 2018), it should not be used to make strong causal claims. For example, in Study 2, although the mediation analysis provided evidence consistent with the widely held view that work climate causes employee motivation and engagement (Deci & Ryan, 2015; Gagné, 2005), given that all of the measures were based on employees' self-reported perceptions, it is possible that, for example, perceptions of engagement influenced perceptions of climate, and not vice versa. It is also possible that the work climate effects observed in Study 1 and Study 2 were due to other uncontrolled organizational variables that covary with work climate. For example, in Study 2, it is possible that organizations with strong-pro-environmental climates also have other progressive attributes (e.g., a commitment to ethics and employee welfare) that are the actual drivers of intrinsic need satisfaction and engagement. Future studies on GPO fit and engagement should control for these and other factors to rule out possible alternative explanations. Likewise, future studies examining the relationship between work climate and PEB should also examine other variables such as needs, norms, and self-identity not included in the present study that may explain the relationships found in this thesis.

A third limitation is that each of the studies in this thesis employed a cross-sectional design, whereby all data were collected at a single time point. It would be beneficial for future studies on work climate, employee motivation, workplace engagement and PEB to explore how relationships can change over time, and which factors drive this change.

Finally, a major outstanding challenge for academics and practitioners is evaluating actual changes in motivation and engagement and also measuring how these are sustained as the result of a particular intervention. Understanding how to favourably change and permanently shift people's motivation and behavior is essential for interventions to be supported by business organizations. Thus, it is recommended that information on motivation, engagement, and PEB be collected at

multiple time points in order to test the stability of behavioral effects associated with different interventions.

Conclusion

This thesis examined the influence of work climate on motivation and engagement for current and prospective employees in Australia. SDT and PO fit theory were the main theoretical frameworks used in this program of research in order to investigate employees' motivation, work engagement, and workplace and non-workplace PEB; and job seekers' perceptions of the attractiveness of a range of workplace attributes. A total of three empirical studies were conducted in order to address three previously unanswered questions: (1) How does work climate (i.e., pro-environmental work climate and employee autonomy support) influence employee motivation to engage in PEB inside the workplace, and can certain aspects of work climate foster high levels of autonomous motivation for PEB that encourages its spillover to areas outside the workplace?, (2) Does high GPO fit predict employees' intrinsic need satisfaction and engagement in the workplace?, and (3) Which organizational attributes are the strongest predictors of perceived organization attractiveness, and does the magnitude of these predictive effects vary as a function of job seekers' personal values?

The results of Study 1 on work climate, employee motivation, and PEB extends previous research on employee PEB (Norton et al., 2015; Pelletier & Aitken, 2014) and work motivation (Deci & Ryan, 2015; Gagné, 2005) in two important ways. First, by showing the process by which work climate influences employee motivation and PEB at low, moderate, and high levels of employee autonomy support and, second, by demonstrating that autonomous PEB motivation is a much stronger predictor of both workplace and non-workplace PEB than controlled PEB motivation. This study found that organizations can generate autonomous PEB motivation by supporting workers' autonomy in addition to promoting pro-environmental policies and procedures. Overall, our findings suggest that certain work environments can foster not only PEBs inside the workplace but also lay the foundation for PEBs in other non-workplace settings.

The results of Study 2 on GPO fit and employees' intrinsic need satisfaction and engagement extend previous research on pro-environmental work climate, PO fit (Kristof- Brown, Zimmerman, Ryan & Johnson, 2005) and SDT (Deci & Ryan, 2015; Gagné, 2005) by demonstrating that (1) organizations with pro-environmental policies, procedures, and processes had more satisfied and engaged employees, (2) the positive effects of pro- environmental work climates were particularly pronounced for employees with pro- environmental values, and (3) employees with pro-environmental values working in organizations with pro-environmental work climates were more engaged because such working environments helps them satisfy their intrinsic needs. Overall, our findings indicate not only a functional relationship of personal environmental values in the work environment, but also that GPO fit effects extend to activity other than environmental protection.

The results of the recruitment study in Study 3 extend previous research on organization attractiveness (Chapman et al., 2005; Uggerslev et al., 2012) and PO fit (Kristof- Brown et al., 2005) by demonstrating that (1) organizations that provide a positive social environment and are committed to customer/societal well-being and pro-environmental responsibility are highly attractive, (2) the attractiveness of these organization attributes applies irrespective of job seekers' weak or strong self-transcendent values, (3) job seekers with strong self-transcendent values and weak self-enhancement values were most sensitive to the absence of these attributes, downrating organizations that scored low on these attributes, and (4) the EAS as a framework for assessing organization attributes should be expanded to include corporate environmental responsibility as a sixth value dimension.

Overall, this program of research adds to the literature on PO fit, SDT, employee motivation, PEB, work-related engagement, and organization attractiveness in three important ways. First, by showing the potential impacts of work climate on employee motivation and workplace engagement. Second, by demonstrating the role of employee motivation in mediating the relationships between work climate, and workplace engagement and PEB. Finally, to show how personal values and organizational values interact to influence work related motivation and engagement, and PEB.

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