Bullying the Boss:
Upwards bullying as a response to destructive supervisory leadership in the workplace

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List of Contents

Table of Contents

List of Tables

List of Figures

Abstract

Introduction
What is workplace bullying?
An overview of the workplace bullying research
Measuring upwards bullying in the workplace
Organizational factors and upward bullying in the workplace
Upward bullying as a form of subordinate retaliation
Leadership style and upwards bullying in the workplace
Destructive leadership
Subordinate perceptions of interactional justice and upward bullying
Measuring leadership style
Continuance commitment and upward bullying
Work-related meaning and upward bullying
Demographic variables
  Sample population
  Gender differences
  Age differences
The present research

Method
Participants
  Post-graduate students
  Work-based subordinate employees

Materials
Multifactor Leader Questionnaire
Perceived Interactional Justice Scale
Continuance Commitment Scale
Work Related Meaning Scale
Negative Acts Questionnaire
Demographic Variables
Pilot Study

Procedure
Post-graduate Students
Work-based Subordinate Employees

Results
Descriptive Analysis
Post-graduate students
Work-based subordinate employees

Discussion
Practical implications
Directions for future research
Conclusion

References

Appendices

Appendix A: Workplace Relationships Survey
List of Tables

Table 1. Summary statistics and zero-order correlations of post-graduate students

Table 2. Hierarchical regression of Perceived Interactional Justice, Continuance Commitment and Perceived Interactional Justice X Continuance Commitment on Upward Bullying in post graduate students

Table 3. Cell means for the interaction of Perceived Interactional Justice and Continuance Commitment on Upward Bullying in post-graduate students

Table 4. Hierarchical regression of Perceived Interactional Justice, Work-related Meaning and Perceived Interactional Justice X Continuance Commitment on Upward Bullying in post-graduate students

Table 5. Cell means for the interaction effect of Perceived Interactional Justice and Work-related Meaning in post-graduate students

Table 6. Summary statistics and zero-order correlations of work-based subordinate employees

Table 7. Hierarchical regression of Perceived Interactional Justice, Continuance Commitment and Perceived Interactional Justice X Continuance Commitment on Upward Bullying in work-based subordinate employees

Table 8. Cell means for the interaction of Perceived Interactional Justice and Continuance Commitment on Upward Bullying in work-based subordinate employees

Table 9. Hierarchical regression of Perceived Interactional Justice, Work-related Meaning and Perceived Interactional Justice X Continuance Commitment on Upward Bullying in work-based subordinate employees

Table 10. Cell means for the interaction effect of Perceived Interactional Justice and Work-related Meaning in work-based subordinate employees
List of Figures

Figure 1. Research model of the predicted relationships between variables

Figure 2. Regression analyses testing the relationship of Destructive Leadership on Upward Bullying through Perceived Interactional Justice in post-graduate students

Figure 3. Plot of the Perceived Interactional Justice by Continuance Commitment Interaction on Upward Bullying in post-graduate students

Figure 4. Plot of the Perceived Interactional Justice by Work-related Meaning interaction on Upward Bullying in post-graduate students

Figure 5. Regression analyses testing the relationship of Destructive Leadership on Upward Bullying through Perceived Interactional Justice in work-based subordinate employees

Figure 6. Plot of the Perceived Interactional Justice by Continuance Commitment interaction on Upward Bullying in work-based subordinate employees

Figure 7. Plot of the Perceived Interactional Justice by Work-related Meaning interaction on Upward Bullying in work-based subordinate employees
Abstract

Despite a growing acknowledgement of the negative outcomes for organizational functioning and the health and well-being of individuals attributable to workplace bullying, research into the phenomenon of upward bullying (supervisors bullied by their subordinates), particularly its aetiology, has received modest attention. The aim of the present study was to explore the link between destructive supervisory leadership and upward bullying and the mediating or moderating roles of perceived interactional justice, continuance commitment and work-related meaning in this relationship. Two hundred and eight post-graduate students and two hundred and four work-based subordinate employees completed an online survey of their perceptions of the leadership style and interactional justice of their immediate supervisor, the levels of their own continuance commitment and work-related meaning, and the frequency with which they engaged in specific bullying behaviours targeting their supervisor. As expected, subordinate perceptions of destructive supervisory leadership were strongly associated with an increased incidence of upward bullying, with the strength of this relationship partially mediated by subordinate perceptions of interactional justice within supervisory interactions. In addition, subordinate levels of continuance commitment and work-related meaning moderated the relationship between subordinate perceptions of interactional justice and the incidence of upward bullying, such that this relationship was intensified when either, or both the level of subordinate continuance commitment or work-related meaning was higher. This paper offers preliminary support for conceptualizing upwards bullying as a retaliatory response to destructive leadership, however due to a reliance on cross-sectional data, inferences of causality cannot be made. Practical implications and directions for future research are discussed.
Bullying the Boss:
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Across the industrialized world, workplace bullying has become an increasingly significant and costly problem both for organizations and employees. Acknowledgement among scholars and managers alike, of the negative outcomes for organizational functioning and the health and well-being of individuals attributable to workplace bullying has seen a recent surge in academic research and media attention devoted to workplace bullying (Barling 1996). While it is appropriate that the majority of this attention has been devoted to supervisor-initiated workplace bullying and bullying between co-workers, this focus has resulted in a gap in the bullying literature in terms of understanding subordinate-initiated bullying targeting supervisors. The aim of the present research is to enhance awareness and understanding of the nature of upwards bullying by exploring the relationship between supervisory leadership behaviour and the incidence of upward bullying in the workplace.

What is Workplace Bullying?

'Workplace Bullying' refers to a plethora of concepts relating to workplace behaviours that treat individuals in an inappropriate or dysfunctional manner (Hadikin & O'Driscoll, 2000). Workplace bullying is often euphemistically labelled intimidation, rudeness, bad attitude, conflict or simply a clash of personalities. However, these kinds of labels are inadequate and unhelpful for describing such behaviours, and may actually contribute to the conditions under which bullying thrives, therefore it is important to recognize bullying for what it is and label it appropriately (Hadikin & O'Driscoll, 2000).

Workplace bullying occurs whenever individuals or groups engage in cruel, vicious or intimidating behaviour which humiliates others and dominates working relationships. Abusive behaviour of this nature occurs along a continuum of severity, ranging from less severe forms such as intentionally withholding information, questioning another's professional ability or spreading damaging rumours, to more severe behaviours such as engaging in explosive outbursts, physical abuse, violence or threats (Zapf & Einarsen 2001). The key defining element of workplace bullying is the persistent use of inappropriate behaviours, be it regular
use of these behaviours, or an ongoing threat (or perceived threat) resulting from a single event (Einarsen, 2000). A sustained and regular pattern of abusive behaviour over six or more months meets most widely accepted bullying criteria. While there is an implicit assumption of specific negative consequences for the recipient (Randall, 1992) this element is not considered a necessary condition for inclusion in workplace bullying definitions (Einarsen, 2000).

Beyond the variability in the characteristics of behaviours, bullying definitions differ most fundamentally in the degree to which contextual features related to the experience of these behaviours, such as elements of time, intention, power imbalances and norm violations are incorporated as central features of the construct they reflect (Keashly, 1998).

Taking into account these central definitional elements of workplace bullying, the following definition of workplace bullying, adapted from Einarson, Hoel, Zapf and Cooper (2003; p.17) is applied for use within this paper:

'Workplace bullying can be defined as harassing, offending, socially excluding someone or negatively affecting someone’s work tasks. In order for the label of bullying to be applied to a particular behaviour, activity, interaction or process the behaviour must occur repeatedly and persistently (one or more times per week) over a six or more month period. A conflict is not considered to constitute bullying if the incident is an isolated event'.

Contrary to the impression typically fostered by the media, which suggests that workplace bullying is predominantly a highly visible form of physical aggression, extensive research now shows that the majority of workplace bullying incidents manifest as covert psychological abuse (Baron, Newman & Geddes, 1999). In most ostensibly rational workplaces, the cause of these non-violent or passive forms of psychological bullying, such as barrages of hostile communications from managers, co-workers or subordinates, cannot simply be attributed to poor individual work performance (Baron et al., 1999). Rather, the employee most vulnerable to workplace bullying is the personally invested high achiever who somehow threatens the beliefs or status of his or her colleagues. Fame, money, class, skill,
clothes, gender appeal or any number of other factors can all contribute towards the establishment of threat perceptions held by other employees (Westhues, 2006).

Recently, a substantial body of available research has accumulated confirming the potential negative and detrimental outcomes attributable to bullying. Research has indicated that as a direct consequence of bullying, work-related stress, psychological and physical illness have increased among employees, with concomitant costs to the individual, their family and the organization (Fulcheri, Barzega, Maina, Novara & Ravizza, 1995). Dysfunctional outcomes for the organization and its stakeholders include reduced employee commitment, reduced creativity and loyalty, higher absenteeism and turnover rates, impaired organizational performance and smaller profit margins. It appears that when employees perceive a necessity for self-protection against workplace bullying they have little time, inclination or mental energy for considerations of organizational productivity (O'Leary-Kelly et al., 1996).

Efforts to minimise this costly social threat to organizational effectiveness and employee well-being has led a growing number of researchers to acknowledge that bullying may occur across all levels of the organizational hierarchy (Davenport, Distler-Schwartz & Pursell-Elliot, 1999). Not only can subordinates and co-workers be targeted by bullies in the workplace, it now appears that supervisors and managers can, and do, become targets of subordinate or employee initiated workplace bullying (Zapf, Einarsen, Hoel & Vartia, 2003), a practice referred to hence forth in this paper as 'upwards bullying'. It is this form of workplace bullying that is the focus of the present research.

An Overview of the Upwards Bullying Research

Relatively little is known about the nature of upwards bullying (Rayner & Cooper, 2003). However, the small number of prevalence studies into workplace bullying recognising upward bullying as a distinct form of workplace bullying have reported the percentage of employees engaging in upwards bullying in their place of work as between 2% and 27%, with a mean of 11% (see Zapf, Einarsen, Hoel & Vartia, 2003).
The focus of workplace bullying research to date has been predominantly on downwards bullying (bullying conducted by managers towards their staff) and more recently, on horizontal bullying, which entails bullying from one colleague to another (Lewis & Sheehan, 2003). While it is legitimate to focus on supervisors and co-workers as the main perpetrators of workplace bullying, (Raynor & Cooper, 2003), this emphasis has left one part of the workplace-bullying puzzle particularly unclear, an understanding of the nature of upward bullying.

Preliminary research conducted by Leymann, (1996) suggested that upward bullying is somewhat different from other forms of workplace bullying. Leymann, (1996) identified the key differentiating element between upward bullying, and downwards and horizontal bullying as the speed with which this particular form of workplace conflict degenerates into ongoing abuse of escalating severity (Leymann, 1996; Zapf & Einarsen, 2001). It is therefore inappropriate for researchers to assume that findings from downward and horizontal workplace bullying will generalize to upward directed bullying. It is argued here that a comprehensive and accurate understanding of workplace bullying requires in-depth examination of all forms of workplace bullying, including upwards bullying. The current study aims to provide organizations and the academic community alike, with a more comprehensive understanding of upward bullying and contribute towards the construction of an upward bullying model on which to base intervention strategies.

Organizational Factors and Upward Bullying in the Workplace

Within the organizational context, Hoel, Cooper and Faragher (2001) argue that during times of high stress and increased pressure to perform, bullying can occur in almost any workplace. However, certain organizational characteristics make some workplaces more susceptible to bullying than others. According to Shallcross (2006), workplace bullying appears to be more dominant in large bureaucratic organizations, particularly those organizations in which work roles are stereotypically segregated on the basis of gender, such as the public service, police and defence forces, health and education. Shallcross, (2006) further suggests that dysfunctional organizational structure, a break-down in
communication and destructive leadership, are particularly conducive to cultivating a culture of workplace bullying, especially under conditions of economic rationalism or increasing competition. Accordingly, employees working under these conditions often report perceptions of greater work-related pressure and stress, while organizations report a reduction in their ability and motivation to implement effective anti-bullying strategies (Shallcross, 2006). Consequently, as employees seek effective strategies to obtain relief from unpleasant work environments, it is becoming increasingly common for managers and supervisors to become targets for subordinate-initiated bullying (Salin, 2003).

**Upward Bullying as a Form of Subordinate Retaliation**

Salin, (2003) conceptualized subordinate-initiated supervisory bullying as an outward manifestation of internal dissent, and suggested that bullying behaviour may be part of a game played by subordinates to get ahead, or preserve the status quo, in an increasingly negative and dissatisfying work environment. For example, within work-related interpersonal conflicts, inappropriate bullying behaviours such as gossip, threats or malicious accusations, can be used by subordinates to punish their comparatively more powerful supervisors for a lack of overall satisfaction with their working conditions, creating a shift in the balance of power as a direct result (Leymann, 1996; Mechanic, 1962, 2003; Vartia, 1996; Yukl, 1989).

Unlike supervisors and those further up the organizational hierarchy whose primary power accrues from their position, subordinates typically acquire the majority of their work-related power from personal sources. These sources include manipulating supervisory access to information and knowledge, such as deliberately withholding information which may affect the supervisor's performance (Porter, Angle & Allen, 2003; Yukl, 1989). For example, subordinates with power created through expertise may consciously withdraw their expertise and skills as a way of punishing their supervisor for job dissatisfaction and deteriorating working conditions (Argyle & Henderson, 1985). However, Argyle and Henderson (1995) suggested that while this approach might provide the subordinate with an effective short-term solution, in the medium to long-term this strategy merely sustains a self-perpetuating cycle of compromised organizational functioning, and elevated internal
pressure and stress on employees. This, in turn cultivates a pervasive bullying culture in which subordinates may engage in supervisor-directed upward bullying as a form of retaliation against low work-related satisfaction.

If Argyle and Henderson (1995) are correct in their assumption, a comprehensive understanding of the antecedents of subordinate retaliation is pivotal for the reduction of the incidence of upward bullying in the workplace.

**Measuring the Incidence of Upward Bullying in the Workplace**

Although numerous well-validated measures of workplace bullying have been developed, these measures have almost exclusively been created for the measurement of downward and horizontally directed bullying. To date, no standard measure specifically orientated toward the measurement of upwards bullying is in existence. Of the more established measures, the Negative Acts Questionnaire (NAQ; Einarsen & Hoel, 2001) has consistently proved a reliable and valid tool for the measurement of downward and horizontal bullying in the workplace. Previous research has reported Cronbach's alpha ranging from .81 to .92 (Mikkelsen & Einarsen, 2001; 2000a; b; Salin, 2001). On this basis, and in the absence of a dedicated upward bullying measurement tool, the NAQ was selected as the measure of upward workplace bullying in this study.

The NAQ employs an operational approach to assess bullying and victimization at work in which all items are written in behavioural terms without any explicit reference to bullying terminology. Einarsen and Hoel, (2001) suggest this approach will yield more objective estimates of the prevalence of bullying, than those in which respondents are asked to indicate whether or not they engaged in bullying behaviour on the basis of a given definition, in which a certain degree of underreporting is likely to follow. Although inaccurate reporting of bullying behaviour is a serious problem, it is becoming increasingly apparent that any occurrence of workplace bullying, irrespective of the frequency of the behaviour, or the specific act, is likely to contribute towards the creation of an exploitative and destructive workplace environment (Liefooghe & Davey, 2001; Lynch, 2004).
The present research focuses on exploring the ways in which the incidence of upward bullying in the workplace is related to supervisory destructive leadership style.

**Leadership Style and Upwards Bullying in the Workplace**

The broader construct of leadership, and those constructs closely associated with leadership, have enjoyed a considerable amount of multi-disciplinary research attention over the years, particularly in the last decade (e.g. Harvey, Buckley, Heames, Zinko, Brouer & Ferris, 2007; Khoo & Burch, 2008; Skogstad, Einarsen, Torsheim, Aasland & Hetland, 2007), and while a great deal of debate and controversy still exists, there has been some degree of academic agreement on a number of issues. One of these issues is the way in which different styles of leadership are differentiated, classified and measured. The current trend among leadership scholars is towards the measurement and classification of leadership style based on the impact of specific leader behaviours on organizational and individual outcomes such as productivity, employee well-being, effort and motivation (Jolson, Dubinsky, Comer and Yammarino, 1997). Following this approach, Bass (1985) proposed a tripartite system for the classification of leadership style: transformational leadership, transactional leadership and laissez-faire leadership. This terminology has subsequently been adopted by much of the academic community.

Broadly defined, transformational leadership is a form of leadership in which leaders promote awareness and acceptance of group purposes and motivate employees to look beyond their own self-interest for the overall good of the group. Essentially, transformational leaders focus on a collective vision and seek to communicate it effectively to all employees. The second approach to leadership - transactional leadership - implements a system of rewards and disciplinary measures to motivate employees, based on the principle that workers are motivated to follow their own self-interests through the exchange of status and wages for work-effort and expertise. Research suggests that the most effective leaders are those who perform using a full range of both transformational and transactional leadership styles, applied at the appropriate time, motivating subordinates to perform to their full potential over time (Avolio, 1999; Bass, 1985, 1998; Bass & Avolio, 1993).
In contrast, the third leadership style, laissez-faire leadership, refers to a hands-off approach in which leaders avoid specifying agreements, clarifying expectations and providing goals and standards to be achieved by followers (Bass, 1990). Laissez-faire leadership has a predominantly destructive effect (the opposite of what is intended by the leader) and violates the legitimate interests of organizations. For example, by potentially undermining the motivation, well-being and job satisfaction of subordinates by failing to meet their legitimate expectations of guidance and support, which explains why the terms ‘laissez-faire’ and ‘destructive’ are often used interchangeably in the leadership literature. Destructive leadership is the leadership style of primary interest in the present research.

**Destructive Leadership**

Within many organizations effected by a negative workplace culture, leadership dissatisfaction frequently emerges as a powerful antecedent of pervasive work-related bullying (Hoel & Cooper, 2000). Leymann (1996) suggested that a hostile organizational climate or culture promotes ineffective or destructive leadership among managers and supervisors. Related research by Vartia, (2003) and Zapf et al., (1996) has substantiated Leymann’s theory by identifying a clear association between the prevalence of bullying in the workplace and destructive leadership.

To date, destructive leadership has been differentially and inconsistently defined and come to mean different things to different researchers. Broadly speaking however, components of organizational leadership are more and less destructive to the extent that they work against, or even violate the legitimate interests of the organization or of subordinates within the organization (Van de Vliert & Einarsen, 2008). For the purposes of this study, and based on definitions used in previous research (Einarson, Aasland & Skogstad, 2007; Hall, Blass, Ferris & Massengale, 2004; Johnson & Huwe, 2002) the following definition of destructive leadership has been proposed:

Counterproductive leadership behaviours that undermine and/or sabotage the organizations goals, tasks, resources and effectiveness and/or the motivation, well-being, or work-related satisfaction of subordinates in a supervisor/subordinate relationship.
This definition is useful for two primary reasons. Firstly, it encompasses behaviour in two domains; physical and verbal behaviours directed toward subordinates, and physical and verbal behaviours directed towards the organization. Secondly, and perhaps more importantly, this definition is consistent with Bass’, (1985), tripartite approach to the measurement of leadership which is the measurement approach employed in the present research.

Padilla, Hogan and Kaiser, (2007) have described destructive leadership as a self-orientated process that focuses on meeting leader-driven objectives and goals, as opposed to the needs of constituents and the larger social organization (Bass & Steidlmeyer, 1999; Howell & Avolio, 1992; O’Conner, 1995; Rosenthal & Pittinsky, 2006). Consequently, efforts to maintain the regime of a destructive leader are predominantly grounded in control and coercion rather than persuasion and commitment, and often preclude developing, empowering and involving followers (Conger, 1990; Howell & Avolio, 1992; Sankowsky, 1995). Like workplace bullying, the effects of destructive leadership appear in organizational outcomes that compromise the quality of life for organizational stakeholders (whether internal or external to the organization) and detract from the organizations main purpose (Hogan & Kaiser, 2005).

Until recently, leadership related research has been dominated by examinations of factors associated with constructive leadership, often with an implicit assumption that destructive leadership simply reflects the absence of leadership (Ashforth, 1994). However, recent exploratory research investigating the destructive aspects of leadership clearly documents the ability of leaders to consciously engage in destructive behaviour towards subordinates (Ashforth, 1994; Bies & Tripp, 1998; Kelloway, Mullen & Francis, 2006). In support of this notion, Van de Vliert and Einarsen (2008) substantiated that destructive leadership behaviours proved to be more significant predictors of work withdrawal and turnover (as an indicator of individual efficiency), than the absence of leadership altogether. For example, a qualitative study of Swedish PhD students who had dropped out of doctoral programmes identified destructive leader behaviours as the predominant explanation for
student attrition (Fischer & Larsson, 2000). In related research, Hogan and Kaiser, (2005) found a significantly greater number of bullying recipients reported working under the supervision of a destructive leader than did non-victimized counterparts.

Taken collectively, these findings imply that poor organizational outcomes are not simply due to a lack of leadership but rather can be attributed to active destructive leader behaviours. Recent empirical research conducted by O'Moore and Lynch (2007) and Kelloway, Mullen and Francis, (2006) exploring this notion, concluded that a destructive style of leadership perpetuates and sustains a culture of workplace bullying because negative behaviours are often unrecognized and consequently go unchallenged. On this basis the following hypothesis for the present research is made:

**H1: Subordinates perceptions of the degree of destructive leadership shown by their immediate supervisor will be positively correlated with the incidence of subordinate initiated upward bullying.**

In the present research, the leadership style of supervisors (as perceived by subordinates) is measured on the Multifactor Leadership Questionnaire (MLQ 5X Short; Bass & Avolio, 1993).

**Measuring Leadership Style**

The MLQ 5X Short (Bass & Avolio, 1993), is one of the most well-validated and respected measures of leader behaviour and outcomes (Bass, 1985). The MLQ utilizes Bass' (1985) tripartite system for the classification of leadership style to capture a full range of leadership behaviours and outcomes. Specific leadership acts are described in behavioural terms and arranged along a continuum of highly destructive to highly constructive behaviours, in terms of the effectiveness of the outcome. Three subscales of leadership style; transformational, transactional, and laissez-faire, are used to assess leadership style. Behaviours located at the highly constructive end of the spectrum are measured on the transformational sub-scale; behaviours which produce moderately constructive or moderately destructive outcomes and are located midway along the constructive-destructive leadership spectrum are measured on the transactional sub-scale;
and those behaviours located at the destructive end of the continuum and which produce highly destructive outcomes are measured on the laissez-faire subscale.

The primary focus of the present research is on those leader behaviours which consistently produce a destructive outcome for both the organization and individuals. Thus, for the purposes of this study, the leader acts and behaviours located at the destructive end of the MLQ leadership continuum (as measured on the laissez-faire subscale of the MLQ) are used as an indicator of the extent to which a particular supervisor is perceived by subordinates to exhibit destructive leader behaviour. This approach is consistent with Einarsen, Aasland and Skogstad's (2007) conceptual model of destructive leadership, which, like the MLQ, emphasizes the importance of perceptions in determining subordinate responses to destructive leadership.

**Subordinate Perceptions of Interactional Justice and Upward Bullying**

Investigations of leader-behaviour perceptions conducted by Fischer and Larsen, (2000) and De Cremer and Tyler, (2007) concluded that many subordinates exhibit a tendency towards interpreting destructive leadership as a breach of interactional justice, (the extent to which people perceive they are treated with respect, politeness, and dignity). Subsequent research has identified subordinate perceptions of low interactional justice as an important antecedent of upward bullying in the workplace (Cohen-Charash & Mueller, 2007; Fox, Spector & Miles, 2001; Kelloway, Mullen & Francis, 2006). Furthermore, the level of respect subordinates have for their leader appears to be positively correlated with interactional justice perceptions (Colquitt et al., 2001; Johnson & O'Leary-Kelly, 2003).

Within organizations, supervisors and line-managers have primary responsibility for implementing the decisions that have the greatest direct impact on the working lives of subordinates. Consequently, the supervisor's attitude and behaviour during subordinate interactions may provide subordinates with an observable measure on which to base their perceptions of organizational justice (the perceived fairness of organizational systems). Organizational justice assessments of this nature are made on a number of different but overlapping justice dimensions, including distributive justice, which relates to the perceived
fairness of the allocation of outcomes or rewards to organizational stakeholders (Homans, 1961); procedural justice, related to the perceived fairness of the process (or procedure) by which ratings are assigned or rewards are distributed (Folger & Greenberg, 1985); informational justice which is defined in terms of the perceived fairness of communication systems and channels (Cohen-Charash & Spector, 2001) and interactional justice, relating to the extent to which individuals feel they are treated with respect politeness and dignity (Colquitt, 2001).

Although previous research has suggested the salience of procedural injustice as a predictor of counterproductive behaviour (Cohen-Charash & Spector, 2001), this paper focuses exclusively on interactional justice for three reasons. Firstly, this focus is consistent with findings on aggression identifying the importance of interactional provocation on aggression (Anderson & Bushman, 2002). Secondly, experiencing a lack of interactional justice appears to be strongly associated with supervisor-directed workplace aggression and bullying in previous research (Anyee, Budhwar & Chen, 2002; Baron et al., 1999; Niehoff & Moorman, 1993). Finally, while other forms of justice may appear to be more systemic or apply more consistently across employees, the uniquely interpersonal nature of interactional justice suggests interactional justice as the most appropriate justice construct for examining relationships between subordinates and their supervisors (Cohen-Charash & Spector, 2001). Moreover, interactional justice has been widely accepted by the academic community as an appropriate construct to aid understanding of the aetiology of upward bullying in the workplace (Kabanoff, 1991).

Additional support for the importance of interactional justice in examinations of workplace bullying is provided by Tepper (2000), who suggested that an individual's perception of high or low justice in the workplace will influence the behavioural and emotional reactions of that individual to the work environment. It follows, therefore, that low perceptions of justice held by an individual may result in that individual engaging in negative behaviour, such as bullying. Gilliland and Chan (2001) attempted to explain negative reactions and behaviour attributable to low justice perceptions by suggesting that injustice, once experienced, leads to retaliation or reduced effort and motivation, whereas perceptions
of justice lead to extra effort and feelings of inclusion and contribution. Furthermore, a lack of justice appears to have a much greater and long-lasting impact on subsequent attitudes, emotions, and behaviours, than situations perceived as more just (Gilliland, Benson & Schepers, 1998).

In related research, Greenberg (1993), concluded that subordinates who interpret their supervisor’s leadership style as unjust may be motivated towards re-establishing a sense of fairness within their supervisor-subordinate relationship, and that one strategy aimed at re-establishing interactional justice is the use of aggressive retaliatory behaviour, such as bullying (Aquino, Tripp & Bies, 2001; Cropanzano & Folger, 1989). Aggressive retaliation involves the desire to punish the offender, in this context the supervisor, for unjust negative acts (Averill, 1982). When individuals perceive a low justice situation, and in the absence of alternative solutions, retaliation is often considered by the individual involved to be a deliberate, rational response (Aquino, Tripp & Bies, 2001; Bies & Tripp, 1996).

Typically, low justice situations are interpreted by subordinates as a violation of the psychological contract inherent in supervisor-subordinate relationships, an interpretation which research has shown to significantly predict supervisor-directed retaliatory behaviour, such as upward bullying (Jones, 2003; Lester, Turnley, Bloodgood & Bolino, 2002). Further to this, a meta-analysis by Hershcovis, Turner, Barling, Arnold, Dupre and Inness, (2007) found subordinate perceptions of unjust supervisor treatment strongly predicted upward bullying, consistent with suggestions that destructive leader behaviour promotes frustration and hostility in subordinates and produces a work climate characterized by counter-productive and negative behaviours, such as bullying (Einarsen, 2008).

In the present study, interactional justice perceptions are measured on the Perceived Interactional Justice scale, a subscale of Moorman’s (1991) Procedural and Interactive Justice Scale. Moorman’s (1991) scale was selected as the measure of interactional justice in the present study based on previous research reporting high scale reliability and validity when applied in a workplace bullying context.

Taken together, the findings from empirical research exploring destructive leadership and interactional justice imply that interactional justice perceptions are likely to represent at
least part of a causal chain of events initiated by destructive supervisory leadership leading to changes in the incidence of upward bullying. On this basis the following hypothesis for the present research is made:

**H2**: Subordinates' perceptions of the level of interactional justice shown by their immediate supervisor will partially mediate the relationship between destructive leadership and upward bullying.

The rationale underlying a prediction of partial, rather than full mediation of the relationship between destructive leadership and upward bullying by subordinate perceptions of interactional justice is based on evidence suggesting that causality is likely to be multidirectional, with background mood or emotional state predisposing people to perceive or not perceive lower interactional justice (Fox & Spector; 1999; Skarlicki & Folger, 1997; Zohar, 1995). Subordinates experiencing high levels of negative mood may be hyper-reactive to perceptions of lower interactional justice within supervisory interactions, resulting in a cycle in which background mood predisposes a person to perceive the work environment as low in interactional justice, which further induces negative mood and heightened strain (Fox et al., 2003; Moorman, 1991). This notion is consistent with suggestions that some aspects of personality may also partially mediate the relationship between destructive leadership and upward bullying.

Furthermore, it is unlikely that perceptions of interactional justice will effect the behaviour of all subordinates in the same way, raising the possibility that the relationship between perceived interactional justice and the incidence of upward bullying is potentially moderated by a particular workplace factor or factors. Based on the findings of previous research, at least two independent variables appear to influence the magnitude of the relationship between interactional justice and upward bullying - the subordinate's internal levels of continuance commitment (the passive commitment and loyalty relating to the perceived costs associated with leaving the organization; Meyer & Allen, 1997), and the extent to which subordinate's feel they are empowered in their working role (work-related meaning; Tepper, 2000).
Continuance Commitment and Upward Bullying

Economic or logistical considerations may make some individuals unwilling to quit their jobs, even if their supervisors’ behaviour makes those jobs undesirable (Tepper, 2000). For these individuals, the injustices invoked by destructive leadership should translate into higher continuance commitment; or an attachment to an organization based on need (Meyer & Allen, 1997). Accordingly, Myer and Allen (1993) suggested that subordinates higher in continuance commitment are more likely to remain, rather than exit an organization, despite reporting a lack of work-related satisfaction, particularly in their supervisor-subordinate relationship. In addition, subordinates who report high continuance commitment typically also report higher organizational loyalty and greater commitment towards achieving the goals of the organization (Davenport et. al., 1999).

Continuance commitment has been strongly linked in the Industrial/Organizational psychology literature with interactional justice perceptions (Meyer & Allen, 1997) workplace bullying (Lynch, 2004) and job satisfaction (Davenport et al., 1999). For instance, Lynch (2004) found evidence to suggest that subordinates who perceive an absence of practical solutions to low-justice working conditions, such as leaving the organization, may adopt a less visible resolution strategy and resort to retaliatory bullying of their supervisor in an attempt to restore justice.

In contrast, individuals who report lower continuance commitment and perceive less economic or logistical need to remain in their current work situation are more likely to interpret low justice conditions as an indication that their employing organizations do not value their contribution or care about their circumstances (Konovsky & Cropanzano, 1991). These subordinates are unlikely to feel an obligation to remain with the organization, nor are they likely to develop a sense of identification with their organization. Indeed, these individuals typically perceive a greater number of solutions to work-related dissatisfaction, such as changing roles within the organization, or seeking alternative employment altogether (Davenport et. al., 1999). Thus, individuals lower in continuance commitment and who feel less financial or logistical need to remain with the organization, are more likely to resolve
low-justice and undesirable work situations by exiting the organization, rather than remaining and resorting to retaliatory upwards bullying of their supervisor (Tepper, 2000).

Hypothesis 3 states that when subordinates have low perceptions of interactional justice yet feel unable, (due to a lack of alternatives), or unwilling (due to high loyalty and commitment) to extract themselves from the unsatisfactory work environment, they will engage in retaliatory upwards bullying in an attempt to restore interactional justice.

H3: It is predicted that the relationship between perceived interactional justice and upward bullying will be moderated by continuance commitment, such that the negative relationship between perceptions of supervisors' interactional justice and the incidence of upward bullying will be stronger when continuance commitment is higher.

For the purposes of the current study subordinate continuance commitment is measured with the revised edition of the continuance commitment subscale from Meyer and Allen's, (1997) Affective, Normative and Continuance Commitment Scale. Meyer and Allen's scale was selected as the measure of subordinate continuance commitment in the present study based on previous research reporting high reliability and validity when the scale is applied in the context of workplace bullying.

Work-related Meaning and Upward Bullying

A second potential moderator of the relationship between subordinate perceptions of interactional justice within their supervisory interactions and the incidence of upward bullying, is the subordinate's level of work-related meaning.

Work-related meaning reflects the extent to which employees feel empowered in their working role, and studies examining the dimensions of empowerment have shown meaning to be one of the most powerful predictors of employee outcomes (Carless, 2004; Kraimer, Seibert & Liden, 1999; Spreitzer, Kizilos & Nason, 1997). Perceived empowerment at work, particularly the extent to which an employee feels they are empowered in their working role, influences the relationship between perceptions of interactional justice and counter-productive workplace behaviour (Tepper, 2000).
Conservation of Resources Theory (COR; Hobfoll, 1989) can be used to explain the effect of the interaction between perceived interactional justice and work-related meaning on the incidence of upward bullying. COR theory suggests that as the loss of resources accumulates, the negative impact of individual outcomes will be intensified (Fritz & Sonnentag, 2006; Hobfall & Shirom, 2000). Individuals who experience higher work-related meaning typically have a substantial investment in their work, value highly the resources they have invested, experience high levels of person-job fit, and experience ultimate purpose in their work (Spreitzer, 1995). As a result, it is expected that the lowest incidence of bullying for those who derive meaning from their jobs will result when perceptions of interactional justice are high. However, when perceptions of interactional justice are low, individuals high in work-related meaning are expected to engage more in retaliatory upward bullying, consistent with the notion that subordinates who experience higher meaning may be less willing to extract themselves from the negative work environment, due to the associated loss of investment.

In contrast, individuals who derive little meaning from their work typically perceive a weaker fit between themselves and their jobs and gain little value from the workplace (Carless, 2004). Consequently, they have little invested in their work and are more likely to exit the organization as a solution to the problem of low interactional justice (Spreitzer, Kizilos & Nason, 1997). As a result, the negative impact of low justice perceptions on the incidence of upward bullying is expected to be weaker on low work-related meaning individuals than on their high meaning of work colleagues.

Thus, Hypothesis 4 states that when subordinates have low perceptions of interactional justice, yet high involvement and connectedness with their work, they will engage in retaliatory upward bullying.

H4: It is predicted that the relationship between perceived interactional justice and upward bullying will be moderated by work-related meaning, such that the negative relationship between interactional justice perceptions and the incidence of upward bullying will be stronger, when the level of work-related meaning is higher.
The three item work-related meaning subscale of Spreitzer's (1995) Empowerment at Work Scale is used as a measure of work-related meaning in this study. Spreitzer's work-related meaning sub-scale was selected as the measure of work-related meaning in the current study based on previous research reporting high reliability and validity of this scale when applied in the context of workplace bullying.

**Demographic Variables**

**Sample Population**

There is some evidence in the literature to suggest occupational differences in susceptibility to workplace bullying (Hershcovis et al., 2007), In order to produce findings which can be generalized across occupations the hypotheses were tested on independent samples drawn from two different populations. Population 1 consisted of a sample of postgraduate doctoral, thesis and dissertation students currently studying full-time with a supervisor at a New Zealand University. The second population was made up of fulltime workers employed in a subordinate role.

There are two primary reasons underlying this choice of participant groups. The first reason is that the supervisor-student relationship is an appropriate analogy to organizational settings given the hierarchical nature of this relationship, with power held by one party over the current working life and future prospects (e.g. through reference letters) of the other. The second reason is that studying workplace aggression between students and supervisors is appropriate considering the challenging and stressful nature of the relationship. Psychological abuse is subtle but appears to be pervasive in higher education and reported incidents of aggression between doctoral students and their supervisors in University settings have been frequent in recent years (e.g. Gabrielson, 2002; Nadis, 1998; Parker, 2000).

University and workplace settings provide two examples of subordinate-supervisor relationships in which bullying may occur, and including the different groups allows for a consideration of whether the same relationships between destructive leadership, perceived
interactional justice, continuance commitment, work-related meaning and upward bullying exist in groups that are differentially composed.

**Gender Differences**

There is a great deal of debate among researchers concerning potential differences in the form and frequency of aggressive workplace behaviour (including bullying) attributable to gender. Several studies have reported a relationship between gender and aggressive workplace behaviour such that males generally show a greater tendency towards aggressive behaviour than females (Feshbach, 1997; Geen, 1990). However, a number of researchers have pointed out that this difference is often reduced when provocation is controlled for and suggested that the reported gender differences concerning whether males or females are exhibiting more or less aggressive behaviours may be misleading (Bettencourt & Miller, 1996). The present study will investigate possible effects attributable to the gender of respondents.

**Age Differences**

Age appears to be correlated with the frequency of workplace aggression and bullying such that higher incidences of workplace bullying are associated with younger and older employees. There is also some evidence in the literature of positive correlations between age and work-related meaning (Hanlon, 1986); and age and continuance commitment (Lee & Wilbur, 1992; White & Spector, 1987). The present study will investigate possible age-related effects.

**The Present Research**

The present research aims to explore the link between subordinate perceptions of destructive supervisory leadership and upward bullying, and the mediating and moderating roles of perceived interactional justice, continuance commitment and work-related meaning in this relationship. Specifically, it is suggested that subordinates perceptions of the degree of destructive leadership shown by their immediate supervisor will be positively correlated with the incidence of subordinate initiated upward bullying, and this relationship is expected
to be partially mediated by subordinate perceptions of the level of interactional justice within their supervisory interactions. In addition to the main effect of subordinate perceptions of interactional justice on the incidence of upward bullying, it is expected that subordinate continuance commitment and work-related meaning will play a moderating role in this relationship, such that the negative association between subordinate perceptions of interactional justice and upward bullying will be intensified among subordinates who feel unable, (high continuance commitment), or unwilling (and high work-related meaning) to extract themselves from an environment they perceive as low in interactional justice.

The relationships examined by each of the four hypotheses are described in Figure 1.

Figure 1
Research model of the predicted relationships between variables
Method

Participants

Post-graduate Students

Two-hundred and eight post-graduate doctoral, thesis and dissertation students (102 males and 106 females), currently working full-time with a supervisor at a New Zealand University, for duration greater than 6 months volunteered to participate in return for the chance to win one of twelve vouchers worth $100. Mean participant age was 28.8 years with a range between 22 and 55 years.

Work-based Subordinate Employees

Two hundred and four subordinate employees (99 males and 104 females) in full-time paid work, who had worked under the same supervisor for 6 or more months volunteered to participate in return for the chance to win one of twelve vouchers worth $100. Mean participant age in years was 36.1 with a range from 20 to 67 years. Occupation was grouped into eight industry categories, based on similar categorical groupings utilized by Statistics New Zealand, and www.seek.co.nz and www.monster.com recruitment websites. Respondents were distributed across the eight industry categories as follows: HR and recruitment (e.g. recruitment consultants, HR professionals, I/O psychologists), 12.4%; hospitality and tourism (e.g. chefs, waiters, track guides), 26.2%; healthcare professionals (e.g. doctors, nurses, radiographers), 17.7%; sport and recreation (e.g. ski instructors, personal trainers, coaches), 5.2%; professionals (e.g. lawyers, accountants, architects), 18.2%; trades and services (e.g. builders, plumbers, bakers) 6.4%; education and training (e.g. teachers, lecturers, trainers), 8.4%; and administration and sales (e.g. retail assistants, managers, receptionists), 5.5%.

There was no incidence of both the student/subordinate, and supervisor within a given relationship being respondents.
Materials

The five questionnaires employed in this study are described below in the order in which they were completed by each participant. A complete copy of the questionnaire is presented as Appendix A.

Multifactor Leadership Questionnaire (MLQ 5X Short: Bass & Avolio, 1993).

The MLQ 5X short contains 45 items that identify and measure key leadership and effectiveness behaviours and attributes shown in prior research as strongly associated with both individual and organizational success. Respondents indicate on a likert-type scale how frequently, or to what degree, they have observed their primary supervisor engage in 36 specific behaviours, where 1 = not at all; 2 = once in a while; 3 = sometimes; 4 = fairly often; 5 = frequently, if not always. Examples of the MLQ items include 'Talks optimistically about the future'; 'Spends time teaching and coaching me'; and 'Avoids making decisions'.

The 36 behavioural items constitute three subscales of leadership style: transformational leadership (20 items), transactional leadership (8 items), and destructive leadership (8 items).

Although responses were obtained on each of the leadership subscales the focus of the present research is exclusively on the elements of destructive leadership. Thus, transformational and transactional leadership scores were omitted from the data analysis. A mean score was calculated from the 8 item destructive leadership subscale for each respondent.

The remaining 9 items on the MLQ 5X Short are ratings of leader attributions, comprising three subscales related to leadership outcomes; leader effectiveness, follower motivation towards extra effort, and subordinate satisfaction with leader behaviour. Respondents indicate on a likert-type scale the frequency with which their supervisor exhibits behaviour consistent with each of the 9 attributes where 1 = not at all; 2 = once in a while; 3 = sometimes; 4 = fairly often; 5 = frequently, if not always. Participant responses on the nine attribute items were collected, but were also omitted from the data analysis process as the attributional element of leadership style was outside the scope of the present study.
Previous research using the 45 item MLQ 5X short has demonstrated high internal consistency, and reported Cronbach’s alpha range from .89 to .96 (Bass & Avolio, 1993; Lipman-Blumen, 2005). In this study, Cronbach’s alpha of the 45 items was .95.

**Perceived Interactional Justice Scale (PIJ; Moorman, 1991)**

The 6-item perceived interactional justice subscale from Moorman’s (1991) Procedural and Interactive Justice Scale was applied to measure respondent’s perceptions of the extent to which the interactions with supervisors that accompany the organizations formal procedures are fair and considerate. Scale items include ‘Your supervisor considers your viewpoint’ and ‘Your supervisor reviews your performance with you and discusses plans or objectives to improve performance’.

Items were rated on a 5-point likert-type scale where 1 = not at all; 2 = once in a while; 3 = sometimes; 4 = fairly often; 5 = frequently, if not always. An average score for the six items was calculated.

Coefficient alphas for the interactional justice scale in previous research ranged from .93 to .95 (Moorman, 1991; Skarlicki & Folger, 1997). In this study the alpha value was .95.

**Continuance Commitment Scale (Meyer & Allen, 1997)**

The revised edition of the Continuance Commitment subscale from Meyer and Allen’s, (1997) Affective, Normative and Continuance Commitment Scale was utilized to measure employee intention to terminate and perceptions of job mobility. The revised version of this subscale consists of six items.

Items from the scale include "Right now, staying with your current organization or supervisor is a matter of necessity as much as desire" and "It would be very hard to leave your organization or supervisor right now". Items are rated on a 5-point likert-type scale where 1 = strongly disagree; 2 = somewhat disagree; 3 = neither disagree nor agree; 4 = somewhat agree; 5 = strongly agree. An average score for the six items was calculated.

Previous research has reported coefficient alpha values ranging from .69 to .84 (Allen & Myer, 1990a; Cohen, 1996, 1999; Cohen & Kirchmeyer, 1995; Myer & Allen, 1997; Myer,
Irving & Allen, 1998; Somers, 1995; Somers & Birnbaum, 1998). Alpha coefficient in this study was .84.

**Work Related Meaning Scale (Spreitzer, 1995)**

The three item work-related meaning subscale from the Empowerment at Work Scale (Spreitzer, 1995) was employed as an indicator of the importance each respondent attached to their work and the fit between the requirements of their work role and personal beliefs, values, and behaviours (Spreitzer, 1995).

The three scale items were: "The work you do is very important to you"; "Your job activities are personally meaningful to you"; and "The work you do is meaningful to you". Items are rated on a 5-point likert type scale where 1 = Not at all; 2 = Once in a while; 3 = Sometimes; 4 = fairly often; 5 = frequently, if not always. An average score from the three items was calculated.

Previous research has found alpha coefficient values ranging from .81 to .87 (Markel & Frone, 1998; Spreitzer, 1995, 1996; Spreitzer, Kizilos, & Nason, 1997). In this study the alpha coefficient was .84.

**Negative Acts Questionnaire (NAQ; Einarsen & Hoel, 2001)**

Part one of Einarsen and Hoel's (2001) Negative Acts Questionnaire was applied in this research as a measure of the prevalence of specific acts of upward workplace bullying. The 21 acts contained in part one of the NAQ, are each described in specific behavioural terms, and make no explicit reference to the term 'bullying'. The individual items vary in the severity of the acts the describe, ranging from less severe, more covert behaviours such as 'Deliberately working below your level of competence' and 'Ignoring your supervisors views and opinions' to more severe and typically overt behaviours such as 'Making threats of violence or physical abuse or engaging in actual violence or physical abuse' and 'Shouting at, or subjecting your supervisor to spontaneous outbursts of anger or rage'. Prior to completing the questionnaire respondents received the following instructions:
"Please rate the frequency with which YOU have engaged in each of the following behaviours while interacting with your immediate workplace supervisor in the past 6 months. Please check the appropriate frequency box on the scale provided".

Responses were recorded on a five point likert-type scale where 1 = never; 2 = now and then; 3 = monthly; 4 = weekly; 5 = daily. A mean score across the 21 items was calculated for each respondent, representing the frequency with which the respondent engaged in some form of upwards bullying directed towards their immediate supervisor. Consistent with both the workplace bullying definition utilized in this study (see Introduction for this definition) and with previous research using the NAQ, (see Einarsen, 2000 for a review) a mean cut-off score of ≥ 4.0 was applied to the data in order to measure the prevalence of upward-directed workplace bullying. Respondents with a mean NAQ score ≥ 4.0 (i.e. individuals engaging in some form of upward bullying, one or more times a week over the preceding 6-month period), were considered to meet the upward bullying criterion employed in this study.

Previous research has demonstrated high internal consistency across the 21 items with Cronbach’s alpha ranging from .81 to .92 (Mikkelsen & Einarsen, 2001; Salin, 2001). In this study, Cronbach’s alpha was .92.

Demographic Variables

Primary occupation, age at last birthday and gender of respondents have been identified in previous workplace bullying research as having an effect on bullying prevalence rates. Accordingly, these variables were examined using open-ended questions. Participant occupation were subsequently categorized and coded for analysis purposes.

Pilot Study

A pilot study was conducted on 20 fourth year honours students involved in supervised honours research during 2008. This population was selected based on the premise that they were representative of the target population; yet did not overlap with potential participants. Pilot study participants completed the online version of the questionnaire, and provided feedback on their experience, identifying any important factors that had been omitted, assessing the layout and logic of the questions and directing researcher attention to any
problems or potential problems they may have encountered. Based on the pilot study feedback, several minor phrasing alterations and word substitutions to the measurement tool were adopted.

**Procedure**

The questionnaires as described above were entered on to an online self-report survey and administered through surveymonkey.com. The primary objective of the study was explained as an examination of the relationship between primary supervisors and their subordinates, with the long-term goal of improving the quality of these interactions. A copy of the information provided to respondent's prefaces the questionnaire contained in Appendix A. Approximately 30 minutes was required to complete the survey, which was accessible from any computer with an internet connection.

Four hundred and ninety one individuals started the survey, of which four hundred and twelve (83.7%) successfully completed and returned the survey. Data was collected over a 50 day period during August and September 2008.

**Post-graduate Students**

The survey was distributed via email to graduate students undertaking supervised research-intensive study at Auckland, Canterbury, Otago and Victoria Universities during 2008. Students meeting research criteria were identified by the administration of the University at which they were enrolled, and an email generated by the researcher containing a hyperlink to the survey was dispatched via University administrators. The e-mail outlined the aim and background of the study and identified members of the research team. It was stressed that the study was intended for research purposes only and any information collected would remain anonymous and confidential. Following the initial email, potential participants were allocated a two week period within which to complete and return the survey online, at which time a reminder email generated by the researcher was distributed via University administrators.

The sequence with which each participant completed the individual scales was identical; however the order of the individual items within each questionnaire was randomised by
surveymonkey.com. A response was required on all displayed items before the participant was able to proceed with subsequent pages of the survey. Clicking on the 'Next page' button located in the bottom right hand corner of the screen returned the completed page to surveymonkey.com, and initiated the delivery of a new page. This mechanism was intended to prevent respondents from revisiting previously viewed items and altering their initial response.

A comprehensive debriefing form concluded the survey, in which participants were reminded of the key research objectives, what the researcher intended for the collected data, and advised which specific components of supervisor/subordinate workplace relationships were measured by the 115 item questionnaire they had completed. Participants were thanked for their involvement in the study and provided with contact details for the research team, and a range of professional services and support groups, should they experience any degree of emotional distress or mental stress as a result of their participation in the study.

Workplace bullying was not explicitly referred to in the debriefing of participants. A complete copy of the participant debriefing form is presented as the final page of the questionnaire contained in Appendix A.

No member of the research team had personal contact with any participant or direct access to participant email addresses.

**Work-based Subordinate Employees**

Participants in Population 2 were recruited from a combination of public and private sector organizations. Contact with organizations was made exclusively through each organization's internal HR department or upper-level management team, as was most appropriate for each organization. Research-related involvement by employees was contingent on obtaining explicit consent from each organization approached.

The administration of participating organizations dispatched an email to all employees, advising them of the study and encouraging their participation in the project. A researcher generated email, identical to that distributed to Population 1 was sent as an attachment.
No member of the research team had direct contact with any employee, or access to their private email. An identical procedure to that for Population 1 was followed.

This research project was reviewed and approved by the University of Canterbury Human Ethics Committee.
Results

Descriptive Analysis

To determine the prevalence of upward bullying amongst the 412 respondents in the present research, a 4.0 cut-off was applied to NAQ scores. A score of 4.0 or above on the NAQ indicated the individual had engaged in upward bullying behaviour at least once a week during the preceding 6 month period. This criterion is consistent with previous upwards bullying research using the NAQ as a measure of the frequency with which an individual engages in specific bullying behaviours. The cut-off was exceeded by 8.3% of respondents, a prevalence rate consistent with previous studies of upward bullying (see Zapf, Einarsen, Hoel & Vartia, 2003).

A comparison of proportions test revealed a significant difference in prevalence rates among male and female respondents (Ms = 13.3% vs. 3.4%, p < .001) but no significant difference in prevalence among work-based subordinate employees and post-graduate student respondents (Ms = 10.0 % and 6.7%).

A 2 (Gender: male/female) X 2 (Population: post-graduate students/work-based subordinate employees) factorial ANOVA on NAQ scores revealed main effects of both gender, $F(1,408) = 17.38, p < .001$, and population, $F(1,408) = 20.98, p < .001$. Mean NAQ scores were higher for male than female respondents (Ms = 2.04 vs. 1.64) and for work-based employees than for students (Ms = 2.06 vs. 1.63)

The reported mean NAQ scores were low in both the student and work-based populations, which raised the possibility that the data were not normally distributed. Probability plots confirmed that the distribution of NAQ data was positively skewed among both post-graduate students and work-based employees. All other research variables were normally distributed. Accordingly, a log transformation was conducted on the NAQ scores and the transformed data analyzed. The results of these analyses are consistent with the results obtained using the raw data, which, for ease of understanding, are the results reported in this paper.
To determine whether it was necessary to analyse the data from the student and work-based samples independently or whether it was justifiable to combine the two samples, independent t-tests were run on each of the dependent variables. The results identified significant differences between post-graduate students and work-based subordinates on all research measures: destructive leadership, \( t(410) = -5.16, p < .001, M_s=2.55 \text{ vs. } M_s=3.15 \); perceived interactional justice, \( t(410) = 4.56, p < .001, M_s=3.47 \text{ vs. } M_s=2.86 \); work-related meaning, \( t(410) = 4.08, p < .001, M_s=4.76 \text{ vs. } M_s=4.46 \); continuance commitment, \( t(410) = 7.68, p < .001, M_s=4.06 \text{ vs. } M_s=3.19 \); and upwards bullying, \( t(410) = -4.39, p < .001, M_s=1.63 \text{ vs. } M_s=2.06 \). That is, the post-graduate students had lower levels of perceived destructive leadership and upward bullying but higher levels of perceived interactional justice, work-related meaning and continuance commitment than the work-based employees. Accordingly, independent data analysis was conducted.

Although data was collected on several additional variables, these are not included in the following analysis since the information yielded by these variables was outside the scope of the present research.

**Post-graduate Students**

Descriptive statistics and inter-correlations of the study variables are presented in Table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>( M )</th>
<th>( SD )</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Destructive Leadership</td>
<td>2.55</td>
<td>1.13</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Interactional Justice</td>
<td>3.47</td>
<td>1.22</td>
<td>-.84**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Work-related Meaning</td>
<td>4.76</td>
<td>1.60</td>
<td>.07</td>
<td>-.07</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Continuance Commitment</td>
<td>4.06</td>
<td>1.93</td>
<td>.50**</td>
<td>-.39**</td>
<td>.14*</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>5. Upward Bullying</td>
<td>1.63</td>
<td>.94</td>
<td>.82**</td>
<td>-.87**</td>
<td>.19**</td>
<td>.46**</td>
<td>-</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

The age of respondents was not significantly correlated with any of the dependent variables for this population, \( r < .25, p > .07 \) and accordingly age was not included in the subsequent analyses. Independent t-tests did reveal significant gender differences on all
research measures: destructive leadership, t (206) = 3.02, p = .003; perceived interactional justice, t (206) = -2.88, p = .004; upwards bullying, t (206) = 4.27, p < .001; continuance commitment, t (206) = 2.85, p = .005; and work-related meaning, t (206) = 2.11, p = .004, measures and accordingly gender was considered in the relevant analyses below.

Hypothesis 1 stated that there would be a significant positive correlation between students' perceptions of destructive supervisory leadership and upward bullying. A significant positive correlation between destructive leadership and upward bullying was found for males (r (106) = .87, p < .001) and females (r (102) = .72, p < .001), however a z-test indicated that the difference in the strength of the correlations of males and females was not statistically significant. Accordingly, the correlational analysis was collapsed across gender. A significant positive correlation between the destructive leadership scores from the MLQ and the NAQ scores was found, r (208) = .82, p < .001, indicating that the greater the student's perception of his or her supervisor's leadership as destructive, the more supervisor-directed upward bullying behaviour s/he engaged in, supporting Hypothesis 1.

Hypothesis 2 stated that perceptions of interactional justice would partially mediate the relationship between destructive leadership style and upward bullying. Analysis of the associations between the variables revealed significant negative correlations between destructive leadership and interactional justice perceptions, r (208) = -.84, p < .001, and between interactional justice perceptions and upwards bullying, r (208) = -.87, p < .001. A significant positive correlation was reported between destructive leadership and upwards bullying, r (208) = .82, p < .001.

The proposed mediatory role of perceived interactional justice was tested under Baron and Kenny's (1986) criteria for mediation, in which three regression models were investigated: destructive leadership on upward bullying; perceived interactional justice (the proposed mediator) on upward bullying; and destructive leadership on perceived interactional justice and upward bullying together. According to Baron and Kenny (1986) mediation would exist if: (a) destructive leadership influenced perceived interactional justice; (b) destructive leadership influenced upward bullying; and (c) in a regression of destructive leadership on perceived interactional justice and upward bullying, perceived interactional justice remained
significant and upward bullying declined in significance or magnitude. Partial mediation occurs when the Sobel's z-value is significant, and the beta weight for the basic relationship remains significant (Baron & Kenny, 1986).

The results of preliminary z-tests indicated no significant gender differences in the strength of the correlations between variables in the regression model. Accordingly, the regressions were collapsed across gender. Destructive leadership predicted student perceptions of interactional justice ($\beta = -0.838, p < .001$) and predicted upward bullying ($\beta = 0.816, p < .001$). Figure 2 shows that perceived interactional justice was a partial mediator of the relationship between destructive supervisory leadership and the incidence of upward bullying. The mediation effect of perceived interactional justice was partial since the significance of this predictor was reduced (Sobels $z = 9.157, p < 0.001$), but not eliminated, when the effect of perceived interactional justice was controlled ($\beta = 0.301, p < .001$). The results support Hypothesis 2.

![Diagram of mediation model](image)

**Figure 2.** Regression analyses testing the relationship of destructive leadership on upward bullying through perceived interactional justice in post-graduate students

*Note.* ** Significance $< .001$

Hypothesis 3 stated that continuance commitment would moderate the relationship between perceived interactional justice and upwards bullying, such that the negative relationship between perceived interactional justice and upward bullying would be stronger when continuance commitment was higher.

To test Hypothesis 3, the relationships between upward bullying, subordinate continuance commitment, and perceived interactional justice were investigated using Pearson product-moment correlation coefficients. As expected, post-graduate students showed a significant negative correlation between interactional justice perceptions and
upward bullying, \( r(208) = -0.87, p < 0.001 \). There was also a significant negative correlation between perceived interactional justice and continuance commitment, \( r(208) = -0.19, p < 0.001 \), and a significant positive correlation between upward bullying and continuance commitment, \( r(208) = 0.46, p < 0.001 \). To examine the predictive utility of perceived interactional justice and continuance commitment in accounting for variance in upward bullying, a hierarchical regression analysis was conducted. The results of preliminary z-tests indicated no significant gender differences in the strength of the correlations between variables in the regression model. Accordingly, the regression analysis was collapsed across gender.

Following the recommendation of Cohen, Cohen, West and Aiken (2003), the predictor variable (perceived interactional justice) and the moderator variable (continuance commitment) were converted to deviation scores so that each variable had a mean of zero, or was mean centred. Centring the variables circumvents the problems of multicollinearity, and of evaluating one main effect at an extreme value of the other main effect. A product term representing the interaction between perceived interactional justice and continuance commitment was created by multiplying together the centred variables.

The variables were entered into the regression equation in three steps, in which the main effect of perceived interactional justice was entered in step 1, followed by the main effect of continuance commitment, (the moderator) in step 2. To test for a perceived interactional justice by continuance commitment interaction consistent with the research model, the multiplicative term was entered in the final step of the equation. Results of the analyses for predicting unique variance in upward bullying are presented in Table 2.

**Table 2.**
Hierarchical regression of Perceived Interactional Justice, Continuance Commitment and Perceived Interactional Justice X Continuance Commitment on Upward Bullying in post-graduate students

<table>
<thead>
<tr>
<th>Variables</th>
<th>( B )</th>
<th>( R^2 )</th>
<th>( \Delta R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived interactional justice</td>
<td>-0.32**</td>
<td>.75</td>
<td></td>
</tr>
<tr>
<td>Step 2:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived interactional justice Continuance commitment</td>
<td>0.37**</td>
<td>.77</td>
<td>.02**</td>
</tr>
<tr>
<td>Step 3:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived interactional justice Continuance commitment</td>
<td>-0.28**</td>
<td>.83</td>
<td>.06**</td>
</tr>
</tbody>
</table>

\( *p < 0.01 \)
\( **p < 0.001 \)
Reviewing the output of Table 2, 75% of the variance in upward bullying was explained by the significant main effect of perceived interactional justice alone, $B = -.32, p < .001$. The addition of the main effect of continuance commitment in step 2 explained a further 2% of the total variance in upward bullying ($\Delta R^2 = .02, p < .001$). The interaction effect of perceived interactional justice by continuance commitment was significant, $B = -.28, p < .001$ and accounted for an additional 6% of the variance in upward bullying over and above the 77% explained by the first order effects of perceived interactional justice and continuance commitment alone ($\Delta R^2 = .06, p < .001$).

The significant interaction term indicates that the association between perceived interactional justice and NAQ score was significantly different between high and low levels of continuance commitment. To visually inspect the manner in which perceived interactional justice and continuance commitment interacted in predicting the incidence of upward bullying, the regression of upwards bullying on perceived interactional justice at low and high levels of continuance commitment was plotted, and is displayed in Figure 3. *High continuance commitment* represents a value one standard deviation above the mean, and *low continuance commitment* represents a value one standard deviation below the mean. The cell means are presented in Table 3.

### Table 3.

*Cell means for the interaction of Perceived Interactional Justice and Continuance Commitment on Upward Bullying in post-graduate students*

<table>
<thead>
<tr>
<th>Continuance Commitment</th>
<th>Perceived Interactional Justice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Low</td>
<td>1.26</td>
</tr>
<tr>
<td>High</td>
<td>2.68</td>
</tr>
</tbody>
</table>
Figure 3 suggests that the slopes of the two lines were significantly different from each other, but that the high continuance commitment slope ($b = -.63$) was steeper than the low continuance commitment slope ($b = -.09$). Indeed the slope of the high continuance commitment line was significantly greater than zero; $t (204) = 5.23, p < .001$, whereas the slope of the low continuance commitment line did not differ significantly from zero. This demonstrates a moderating effect of continuance commitment on the relationship between interactional justice perceptions and NAQ score among post-graduate students. These findings offer support for Hypothesis 3.

Hypothesis 4 stated that work-related meaning would moderate the relationship between perceived interactional justice and upwards bullying, such that the negative relationship between perceived interactional justice and upward bullying would be greater when work-related meaning was higher.

To test Hypothesis 4, the correlations between work-related meaning, upward bullying, and perceived interactional justice were investigated using Pearson product-moment correlation coefficients. As expected, a significant negative correlation was found between perceived interactional justice and upward bullying, $r (208) = -.87 p < .001$, while a significant
positive correlation was found between work-related meaning and upward bullying, $r(208) = .19, p < .001$. However, work-related meaning was not significantly correlated with perceived interactional justice. To examine the predictive utility of perceived interactional justice and work-related meaning in accounting for variance in upward bullying, a hierarchical regression analysis was conducted.

The results of preliminary z-tests indicated no significant gender differences in the strength of the correlations between variables in the regression model. Accordingly, the regression analysis was collapsed across gender. The predictor variable, (perceived interactional justice) and the moderator variable (work-related meaning) were mean centred, and a product term representing the interaction between perceived interactional justice and work-related meaning was created by multiplying together the centred variables.

The variables were entered into the regression equation in three steps, in which the main effect of perceived interactional justice was entered in step 1, followed by the main effect of work-related meaning, (the moderator) in step 2. To test for a perceived interactional justice by work-related meaning interaction consistent with the research model; the multiplicative term was entered in the final step of the equation. Results of the analyses for predicting unique variance in upward bullying are presented in Table 4.

<table>
<thead>
<tr>
<th>Variables</th>
<th>$B$</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Perceived interactional justice</td>
<td>-.56**</td>
<td>.75</td>
<td>[]</td>
</tr>
<tr>
<td>Step 2: Perceived interactional justice Work-related meaning</td>
<td>.38**</td>
<td>.77</td>
<td>.02*</td>
</tr>
<tr>
<td>Step 3: Perceived interactional justice Work-related meaning Perceived interactional justice * work-related meaning</td>
<td>-.33**</td>
<td>.79</td>
<td>.02*</td>
</tr>
</tbody>
</table>

* $p < .01$  
** $p < .001$

Reviewing the output of Table 4, 75% of the variance in upward bullying was explained by the significant main effect of perceived interactional justice alone, $B = -.56, p < .001$. There was a significant main effect of work-related meaning ($B = .38, p < .001$) which
explained an additional 2% of the total variance in upward bullying (ΔR² = .02, p < .001). The interaction effect of perceived interactional justice X work-related meaning was significant, B = -.33, p < .001 and accounted for a further 2% of the variance in upward bullying over and above the 77% explained by the first order effects of perceived interactional justice and work-related meaning alone (ΔR² = .02, p < .001).

The significant interaction term indicates that the association between perceived interactional justice and NAQ score was significantly different between high and low levels of work-related meaning. To visually inspect the manner in which perceived interactional justice and work-related meaning interacted in predicting the incidence of upward bullying, the regression of upwards bullying on perceived interactional justice at low and high levels of work-related meaning was plotted, and is displayed in Figure 4. High work-related meaning represents a value one standard deviation above the mean, and low work-related meaning represents a value one standard deviation below the mean. The cell means are presented in Table 5.

Table 5.
Cell means for the interaction of Perceived Interactional Justice and Work-related Meaning on Upward Bullying in Post-graduate students

<table>
<thead>
<tr>
<th>Work-related Meaning</th>
<th>Perceived Interactional Justice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Low: 1.35</td>
</tr>
<tr>
<td></td>
<td>High: 1.04</td>
</tr>
<tr>
<td>High</td>
<td>Low: 2.88</td>
</tr>
<tr>
<td></td>
<td>High: 1.06</td>
</tr>
</tbody>
</table>
Figure 4 suggests that the slopes of the two lines were significantly different from each other, but that the high work-related meaning line ($b = -.76$) was steeper than the low continuance commitment slope ($b = -.24$). However, the slope of both the high work-related meaning line, ($t (204) = -3.62, p < .001$), and the slope of the low continuance commitment line were significantly greater than zero ($t (204) = -2.18, p = .036$). This demonstrates a moderating effect of work-related meaning on the relationship between interactional justice perceptions and NAQ score among post-graduate students. These findings offer support for Hypothesis 4.
Work-based Subordinate Employees

Descriptive statistics and inter-correlations of the study variables are presented in Table 6.

Table 6. Summary Statistics and Zero-Order Correlations for Work-based Subordinate Employees (N = 204)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Destructive Leadership</td>
<td>3.15</td>
<td>1.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Interactional Justice</td>
<td>2.87</td>
<td>1.47</td>
<td>-.91**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Work-related Meaning</td>
<td>4.46</td>
<td>.44</td>
<td>.01</td>
<td>.07</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Continuance Commitment</td>
<td>3.19</td>
<td>.66</td>
<td>.65**</td>
<td>-.71**</td>
<td>-.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Upward Bullying</td>
<td>2.06</td>
<td>.94</td>
<td>.81**</td>
<td>-.85**</td>
<td>-.09</td>
<td>.58**</td>
<td></td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

The age of respondents was not significantly correlated with any of the dependent variables for this population, \( r < .25, p > .08 \) and accordingly age was not included in the subsequent analyses. Independent t-tests did reveal significant gender differences on the work-related meaning, \( t(202) = -2.01, p = .04 \); and upwards bullying, \( t(202) = 1.83, p = .04 \), measures and accordingly gender was considered in the relevant analyses below.

Hypothesis 1 stated that there would be a significant positive correlation between employees' perceptions of destructive supervisory leadership and upward bullying. A significant positive correlation between destructive leadership and upward bullying was found for males \( r(99) = .87, p < .001 \) and females \( r(105) = .79, p < .001 \), however a z-test indicated that the difference in the strength of the correlations of males and females was not statistically significant. Accordingly, the correlational analysis was collapsed across gender. A significant positive correlation between the destructive leadership scores from the MLQ and the NAQ scores was found, \( r(204) = .81, p < .001 \), indicating that the greater the employees' perception of his or her supervisor's leadership as destructive, the more supervisor-directed upward bullying behaviour s/he engaged in, supporting Hypothesis 1.

Hypothesis 2 stated that subordinate perceptions of interactional justice would partially mediate the relationship between destructive leadership style and upward bullying. Analysis of the associations between the variables identified significant negative correlations between destructive leadership and interactional justice perceptions, \( r(204) = -.91, p < .001 \), and
between interactional justice perceptions and upward bullying, \( r(204) = -.85, p < .001 \). A significant positive correlation was reported between destructive leadership and upward bullying, \( r(204) = .81, p < .001 \).

The proposed mediatory role of perceived interactional justice was tested under Baron and Kenny's (1986) criteria for mediation described previously. The results of z-tests comparing the strength of the correlations between variables in the regression model indicated no significant gender differences. Accordingly, when the regressions were collapsed across gender, destructive leadership predicted employee perceptions of interactional justice (\( \beta = -.914, p < .001 \)) and predicted upward bullying (\( \beta = .814, p < .001 \)). Figure 5 shows that perceived interactional justice was a partial mediator of the relationship between destructive supervisory leadership and upward bullying amongst work-based subordinates. The mediation by perceived interactional justice was partial since the significance of this predictor was reduced (Sobels \( z =7.212, p < .001 \)), but not eliminated, when the effect of perceived interactional justice was controlled (\( \beta = .210, p < .001 \)). The results support Hypothesis 2.

![Figure 5](image)

**Figure 5.**
Regression analyses testing the relationship of destructive leadership on the incidence of upwards workplace bullying through perceived interactional justice in work-based subordinate employees

*Note.* **Significance < .001

Hypothesis 3 stated that continuance commitment would moderate the relationship between perceived interactional justice and upwards bullying, such that the negative relationship between perceived interactional justice and upward bullying would be stronger when continuance commitment was higher.

To test Hypothesis 3, the relationships between upward bullying, continuance commitment, and perceived interactional justice, were investigated using Pearson product-
moment correlation coefficients. As expected, work-based subordinates showed a significant negative correlation between interactional justice perceptions and upwards bullying, $r(204) = - .85, p < .001$, and a significant negative correlation between perceived interactional justice and continuance commitment, $r(204) = - .71, p < .001$. However, the correlation between continuance commitment and upwards bullying was not significant.

To examine the predictive utility of perceived interactional justice and continuance commitment in accounting for variance in upward bullying, a hierarchical regression analysis was conducted. The results of z-tests comparing the strength of the correlations between variables in the regression model indicated no significant gender differences. Accordingly, the regression analysis was collapsed across gender. The predictor variable (perceived interactional justice) and the moderator variable (continuance commitment) were mean centred and a product term representing the interaction between perceived interactional justice and continuance commitment was created by multiplying together the centred variables.

The variables were entered into the regression equation in three steps, in which the main effect of perceived interactional justice was entered in step 1 followed by the main effect of continuance commitment, (the moderator) in step 2. To test for a perceived interactional justice by continuance commitment interaction consistent with the research model, the multiplicative term was entered in the final step of the equation. Results of the analyses for predicting unique variance in upward bullying are presented in Table 7.

Table 7. Hierarchical regression of Perceived Interactional Justice, Continuance Commitment and Perceived Interactional Justice X Continuance Commitment on Upward Bullying in work-based subordinate employees

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived interactional justice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived interactional justice</td>
<td>- .67**</td>
<td>.73</td>
<td></td>
</tr>
<tr>
<td>Continuance commitment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived interactional justice</td>
<td></td>
<td>.04</td>
<td>.00</td>
</tr>
<tr>
<td>Continuance commitment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived interactional justice * continuance commitment</td>
<td>- .06*</td>
<td>.75</td>
<td>.01</td>
</tr>
</tbody>
</table>

* $p < .01$
** $p < .001$
Reviewing the output of Table 7, 73% of the variance in upward bullying was explained by the significant main effect of perceived interactional justice alone, $B = -.67, p < .001$. The addition of the main effect of continuance commitment to the regression model in step 2 was not significant; continuance commitment alone did not account for any of the total variance in upward bullying. The interaction between perceived interactional justice and continuance commitment was significant, $B = -.06, p < .01$ and accounted for an additional 1% of the variance in upward bullying, over and above the 73% explained by the first order effect of perceived interactional justice and continuance commitment alone ($\Delta R^2 = .01, p < .01$).

The significant interaction term indicates that the association between perceived interactional justice and NAQ score was significantly different between high and low levels of continuance commitment. To visually inspect the manner in which perceived interactional justice and continuance commitment interacted in predicting the incidence of upward bullying, the regression of upwards bullying on perceived interactional justice at low and high levels of continuance commitment was plotted, and is displayed in Figure 6. High continuance commitment represents a value one standard deviation above the mean, and low continuance commitment represents a value one standard deviation below the mean.

The cell means are presented in Table 8.

**Table 8.**
*Cell means for the interaction of Perceived Interactional Justice and Continuance Commitment on Upward Bullying of work-based subordinate employees*

<table>
<thead>
<tr>
<th>Continuance Commitment</th>
<th>Perceived Interactional Justice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Low</td>
<td>2.51</td>
</tr>
<tr>
<td>High</td>
<td>3.34</td>
</tr>
</tbody>
</table>
Interaction Effect of Perceived Interactional Justice and Continuance Commitment on the NAQ score of Work-based Subordinate Employees

Figure 6 suggests that the slopes of the two lines were significantly different from each other, but that the high continuance commitment slope ($b = -.82$) was steeper than the low continuance commitment slope ($b = -.49$). However, the slope of both the high continuance commitment line ($t (200) = -4.96, p < .001$), and the slope of the low continuance commitment line were significantly greater than zero ($t (200) = -2.24, p = .002$). This demonstrates a moderating effect of continuance commitment on the relationship between interactional justice perceptions and NAQ score among work-based employees. These findings offer support for Hypothesis 3.

Hypothesis 4 stated that work-related meaning would moderate the relationship between perceived interactional justice and upwards bullying, such that the negative relationship between perceived interactional justice and upward bullying would be intensified by stronger work-related meaning, when perceptions of interactional justice were low.

To test Hypothesis 4 the correlations between work-related meaning, upward bullying, and perceived interactional justice were investigated using Pearson product-moment correlation coefficients. As expected, the negative correlation between perceived interactional justice and upward bullying was significant, $r (204) = -.91, p < .001$. However,
work-related meaning was not significantly correlated with upward bullying or perceived interactional justice perceptions. To examine the predictive utility of perceived interactional justice and work-related meaning in accounting for variance in upward bullying, a hierarchical regression analysis was conducted.

The results of z-tests comparing the strength of the correlations between variables in the regression model indicated no significant gender differences. Accordingly, the regression analysis was collapsed across gender. The predictor variable, (perceived interactional justice) and the moderator variable (work-related meaning) were mean centred, and a product term representing the interaction between perceived interactional justice and work-related meaning was created by multiplying together the centred variables.

The variables were entered into the regression equation in three steps, in which the main effect of perceived interactional justice was entered in step 1 followed by the main effect of work-related meaning, (the moderator) in step 2. To test for a perceived interactional justice by work-related meaning interaction consistent with the research model, the multiplicative term was entered in the final step of the equation. Results of the analyses for predicting unique variance in upward bullying are presented in Table 9.

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Perceived interactional justice</td>
<td>-.62**</td>
<td>.73</td>
<td></td>
</tr>
<tr>
<td>Step 2: Perceived interactional justice Work-related meaning</td>
<td>.04</td>
<td>.73</td>
<td>.00</td>
</tr>
<tr>
<td>Step 3: Perceived interactional justice Work-related meaning Perceived interactional justice * work-related meaning</td>
<td>-.15**</td>
<td>.75</td>
<td>.02**</td>
</tr>
</tbody>
</table>

** $p < .01$

Reviewing the output of Table 9, 73% of the variance in upward bullying was explained by the significant main effect of perceived interactional justice alone, $B = -.62, p < .001$. The main effect of work-related meaning was not significant, nor did it account for any unique variance in upward bullying. The interaction between perceived interactional justice and work-related meaning was significant, $B = -.15, p < .001$ and accounted for an additional 2%
of the variance in upward bullying over and above the 73% explained by the first order effects of perceived interactional justice and continuance commitment alone ($\Delta R^2 = .02, p < .001$).

The significant interaction term indicates that the association between perceived interactional justice and NAQ score was significantly different between high and low levels of continuance commitment. To visually inspect the manner in which perceived interactional justice and work-related meaning interacted in predicting the incidence of upward bullying, the regression of uppers bullying on perceived interactional justice at low, medium and high levels of continuance commitment was plotted, and is displayed in Figure 7. High work-related meaning represents a value one standard deviation above the mean, and low work-related meaning represents one standard deviation below the mean. The cell means are presented in Table 10.

Table 10.  
Cell means for the interaction of Perceived Interactional Justice and Work-related meaning on the NAQ score of work-based subordinate employees

<table>
<thead>
<tr>
<th>Work-related Meaning</th>
<th>Perceived Interactional Justice</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>2.37</td>
<td>1.39</td>
</tr>
<tr>
<td>High</td>
<td>3.39</td>
<td>1.01</td>
</tr>
</tbody>
</table>

![Interaction Effect of Perceived Interactional Justice and Work-related Meaning on the NAQ score of Work-based Subordinate Employees](image)

**Figure 7.**  
Plot of the significant Perceived Interactional Justice X Work-related Meaning interaction effect on Upward Bullying of work-based subordinate employees
Figure 7 suggests that the slopes of the two lines were significantly different from each other, but that the high work-related meaning line ($b = -0.78$) was steeper than the low continuance commitment slope ($b = -0.47$). However, the slope of both the high work-related meaning line, ($t (200) = -5.12, p < .001$), and the slope of the low continuance commitment line were both significantly greater than zero ($t (200) = -2.19, p = .003$). This demonstrates a moderating effect of work-related meaning on the relationship between interactional justice perceptions and NAQ score among work-based employees. These findings offer support for Hypothesis 4.
Discussion

The aim of the present research was to investigate the link between destructive leadership and upwards bullying and the mediating and moderating roles of perceived interactional justice, continuance commitment and work-related meaning in this relationship. A quantitative questionnaire study sampling two independent populations - post-graduate students and subordinate work-based employees - was administered on-line to examine the relationship between destructive leadership and the incidence of upward bullying in the workplace.

The notion that supervisors can, and do, become targets for subordinate initiated upward bullying, both in an academic setting and in workplace environments, was supported by the findings of this paper indicating an upwards bullying prevalence of 8.3%, which is consistent with previous studies reporting the prevalence of upward bullying as ranging between 2% and 27% (see Zapf, Einarsen, Hoel & Vartia, 2003).

Supervisor-directed upwards bullying was initiated more often by males than by females, consistent with suggestions that there is a relationship between gender and aggressive workplace behaviour, including bullying, such that males generally show a greater tendency towards aggressive behaviour than do females (Feshbach, 1997; Geen, 1990). However, this notion is highly controversial and has attracted considerable research debate for many years (Hershcovis et. al., 2007). Several researchers have pointed out that reported gender differences in aggressive behaviour may be misleading, often disappearing when the effects of provocation are controlled (Anderson & Bushman, 2002). Potential effects due to provocation were not considered in the current study, thus the reported gender difference concerning whether males or females exhibited more or less upward bullying behaviour should be interpreted with some caution (Anderson & Bushman, 2002). To help resolve this highly contentious issue, future research exploring potential differences in the nature of upward bullying attributable to gender might consider including both a measure of provocation, and a measure of the occurrence among males and females of specific bullying acts, varying in both severity (from less to more severe) and form (physical, verbal or
relational) on which to compare and contrast male and female initiated bullying in the workplace.

Overall, the findings of the current study were similar across the two samples, suggesting that the supervisor-student relationship in Universities is similar, at least in terms of upward bullying, to supervisor-subordinate relationships in other organizational settings. There was no difference in the prevalence of upward bullying between post-graduate students and work-based employees; however the NAQ scores, indicating the frequency of specific bullying behaviours - although low for both students and employees - were higher for work-based employees. Thus, although the occurrence of upward bullying in a work-place setting was greater than in a University setting, the proportion of individuals exceeding the NAQ cut-off score necessary to be labelled a “bully” did not differ between work-based employees and post-graduate students.

This finding may reflect the greater opportunity for bullying in a workplace environment as compared to academic settings, due to a higher frequency of supervisor-subordinate interactions (Harris et. al., 2007). For instance, in a workplace environment subordinates are likely to be involved in interactions with their supervisor several times each week, or as frequently as several times each day. In contrast, post-graduate students may meet with their supervisor as infrequently as once each month, reducing both the likelihood, and the opportunity for supervisor-directed bullying to occur. This notion is supported by the findings of O'Moore and Lynch (2007), who identified a positive relationship between the frequency of supervisor-subordinate contact and the incidence of upward bullying when the subordinates overall satisfaction with their supervisor was low.

The findings of the current paper are consistent with suggestions that subordinates may initiate upwards bullying as a retaliatory response to destructive supervisory leadership in a workplace environment (Salin, 2003b). However, due to a reliance on cross-sectional data, and the fact that no measures of provocation or retaliation were included in the research questionnaire, inferences of causality cannot be made. While this conceptualization of the relationship between destructive supervisory leadership and the incidence of upward bullying is consistent with previous work in which destructive leadership
is an antecedent of subordinate behaviour (Einarson, Aasland & Skogstad, 2007; Hall, Blass, Ferris & Massengale, 2004; Hoel & Cooper, 2000; Johnson & Huwe, 2002; Leymann, 1996; Vartia, 2003; Zapf et al., 1996), other explanations for the findings reported in this paper may exist. For example, it is possible that destructive supervisory leadership is a response to, rather than a cause of upward bullying, such that subordinate bullying may elicit supervisor responses such as avoiding supervisor-subordinate interactions or arbitrarily raising performance targets to unrealistic levels, that are perceived as acts of destructive leadership. However, it is difficult to understand why subordinate perceptions of interactional justice would partially mediate the relationship between supervisor-directed upward bullying and destructive supervisory leadership, (as reported in this paper), if causality ran in this direction.

A partial mediatoy effect on the relationship between destructive leadership and the incidence of upward bullying due to subordinate perceptions of interactional justice within supervisory interactions was indicated in the findings, consistent with suggestions that when supervisors are perceived by their subordinates as exhibiting destructive leader behaviour; ignoring legitimate leadership expectations from students by a lack of presence, involvement, feedback, or rewards, such behaviours may influence subordinates’ perceptions of justice in their supervisor-subordinate relationship (Aryee, Budhwar & Chen, 2002; Baron et al., 1999; Niehoff & Moorman, 1993). When the subordinates’ perceptions of supervisory interactional justice are low, these individuals may engage in supervisor-directed upward bullying as an outward manifestation of internal dissent and work-related dissatisfaction (Salin, 2003b).

In the present study lower subordinate perceptions of interactional justice within interactions with their supervisor were associated with a greater incidence of supervisor-directed upward bullying. Conversely, subordinates’ who perceived higher interactional justice in their supervisor relationship engaged less in supervisor-directed upward bullying. In essence, the lower were subordinate perceptions of interactional justice, the greater was the degree to which subordinates engaged in upwards bullying of their supervisor, which emphasizes the importance of perceptions in models of workplace bullying (Harris, Kacmar
In this paper the accuracy of such perceptions is unknown and this is an important issue to consider in future research. It is important to acknowledge that perceptions do play a considerable role in bullying behaviour, but to fully understand this behaviour - and perhaps more importantly to develop interventions to reduce bullying – the extent to which perceptions match actual behaviours must also be investigated.

In addition to the main effect of subordinate perceptions of interactional justice on upward bullying, subordinate continuance commitment was expected to play a moderating role in this relationship. This prediction was supported by the finding that the magnitude of the association between subordinate's perceptions of interactional justice and upward bullying was significantly different between high and low levels of continuance commitment. Specifically, higher levels of subordinate continuance commitment strengthened the negative relationship between interactional justice perceptions and supervisor-directed upward bullying. Subordinates who reported higher continuance commitment and who also perceived lower interactional justice within their supervisory interactions engaged in more supervisor-directed upward bullying than individuals lower in continuance commitment.

Meyer and Allen (1993) have explained the interaction effect of continuance commitment and interactional justice perceptions on upward bullying by suggesting that subordinates who report high continuance commitment typically perceive fewer practical solutions to lower justice conditions, such as exiting the organization, and may feel that retaliation is their only available justice restoration strategy (Meyer & Allen, 1993). This finding is consistent with suggestions that when justice perceptions are low, subordinates who feel a strong sense of work-related obligation towards their supervisor, may retaliate against perceived workplace injustice by upward bullying of their supervisor (Davenport et al., 1999; Lynch, 2004; Meyer & Allen, 1993).

Subordinate work-related meaning was also expected to play a moderating role in the relationship between subordinate perceptions of interactional justice and supervisor-directed upward bullying. As expected, the association between perceived interactional justice and upward bullying was significantly different between high and low levels of subordinate work-related meaning, such that higher subordinate work-related meaning intensified the negative
relationship between interactional justice perceptions and supervisor-directed upward bullying. Subordinates who reported higher levels of work-related meaning and who also perceived lower interactional justice within supervisory interactions, engaged more in supervisor-directed upward bullying than individuals who reported lower work-related meaning, consistent with suggestions that the degree of empowerment an individual gains from their work may predict the extent to which that individual will respond to destructive leader behaviours by retaliating through upward bullying of their supervisor (Yuki, 1989). This behavioural response has been explained by the idea that when individuals find their work more meaningful, they tend to invest more heavily in their work, in terms of time, resources and so on (Fritz & Sonnentag, 2006; Hobfall & Shirom, 2000). Consequently, when compared to individuals who associate less meaning with their work, individuals high in work-related meaning have more to lose when successful work outcomes are under threat from destructive supervisory leadership (Hogan & Kaiser, 2005). The more that is at risk, the more the individual's attention may be directed towards addressing the destructive situation in the form of retaliatory upwards bullying (Johns, 1978).

In summary, the findings presented in this paper support the notion that supervisors can, and do, become targets for subordinate initiated upward bullying, both in an academic setting and in a workplace environment. Subordinates' who perceived their supervisor as engaging more in destructive leadership behaviour also engaged more in supervisor-directed upward bullying, however the strength of this relationship was partially mediated by subordinate perceptions of the degree of interactional justice within supervisory interactions. In addition to the main effect of subordinate interactional justice perceptions on upward bullying, both the subordinate continuance commitment and subordinate work-related meaning played a moderating role in this relationship. Specifically, higher levels of subordinate continuance commitment and/or higher levels of work-related meaning intensified the negative relationship between interactional justice perceptions and supervisor-directed upward bullying.

These findings have a number of important implications for organizational practice and organizational policy, particularly relevant for the development and implementation of
prevention and awareness training in the areas of upward bullying and destructive leadership.

**Practical Implications**

Workplace bullying and destructive leadership have been linked consistently in the Industrial/Organizational literature to negative organizational outcomes in terms of reduced productivity, profit margins, and employee turnover (Robinson & Bennett, 1997). Similarly, in an academic setting, workplace bullying and destructive leadership have been associated with higher student attrition (Fischer & Larsson, 2000); increased absenteeism and turnover among University professors (O'Moore & Lynch, 2007); and lower student grade-point averages (Parker, 2000). There is also a substantial body of empirical research documenting the severe negative outcomes for individuals, suggesting that workplace bullying and destructive leadership have the potential to not only damage self-esteem, physical health, cognitive functioning, and emotional health of the recipient, but also of their families, and those who witness bullying and destructive leader behaviours in the workplace (Einarsen & Mikkelsen, 2003; Keashly & Harvey, 2005).

Furthermore, recognition is growing among bullying researchers that organizations can themselves contribute towards an increased prevalence of workplace bullying (and the subsequent negative outcomes), through organizational practices that implicitly allow bullying to occur; either by giving permission in a positive sense, such as encouraging bullying behaviour under the pretence of a strong management style (Brodsky, 1976; Einarsen, 1999) or, through apparent inaction, supporting the belief that bullying will be ignored (Adams, 1992; Rayner, 1999c; Liefooghe & Davey, 2001).

From both a legal and ethical standpoint, organisations are responsible for ensuring the safety and well-being of employees in their place of work (Lewis & Sheehan, 2003). In light of such well documented negative outcomes attributable to workplace bullying, a failure by organizations to acknowledge and address issues of bullying in the workplace, clearly contravenes both the legal obligations and the ethical responsibility of the organization. To protect the health and safety of employees, organizations must work proactively towards
reducing the prevalence of upward workplace bullying, and adopt a ‘zero-tolerance’ policy for all forms of workplace bullying, which is reflected in organizational attitudes and behaviours associated with the treatment of bullying related issues for example, by acting in a manner which is perceived as fair and just by subordinates (Lutgen-Sandvik, Tracy & Alberts, 2007; Raynor & Cooper, 2003).

Just as organizational practices are not intended to cause harm to employees, it is not always the intention of the bully to inflict deliberate harm on the target. Rather, workplace bullying may develop out of ignorance regarding what is considered to be appropriate or inappropriate behaviour, or simply out of low social skills, (Richards & Daley, 2003). Organizations may benefit, in terms of a reduction in the rate of bullying, by educating employees about the negative consequences and implications associated with bullying and other counter-productive work behaviours, in terms of both organizational and individual outcomes, and by explicitly differentiating unacceptable workplace behaviour (such as withholding information pertinent to a successful outcome from their supervisor) from behaviour which is both acceptable and expected (such as treating all staff equally with dignity and respect).

However, it is not enough for organizations to simply focus on reducing the prevalence of upward workplace bullying. It is equally, if not more important that organizations identify and devote attention to understanding the potential underlying causes of upward bullying. Both the magnitude of the positive relationship between destructive supervisory leadership and upward bullying, and the consistency with which this association is reported in the literature, reiterates the need for organizations to develop preventative measures aimed specifically at reducing the occurrence of destructive leadership (Bligh, et al., 2007; O’Moore & Lynch, 2000; Skogstad et al., 2007), such as ensuring that sufficient organizational resources are devoted to the provision of adequate leadership training (in terms of quality and quantity), and monitoring the behaviour of supervisors and subordinates during workplace interpersonal interactions.

Similarly, supervisors should be provided with encouragement and incentives to undertake continuous self-monitoring and feedback-seeking from associates as a means of
accurately gauging how their leadership style is perceived by other organizational stakeholders (subordinates, co-workers and senior managers). Gauging the perceptions of associates is a crucial component in promoting the success of interventions aimed at reducing the negative consequences of destructive leadership, such as upward bullying, because subjective perceptions of leader behaviour appear to work in conjunction with more objective measures to determine subordinate outcomes (Harris, Kacmar & Zivnuska, 2007).

Feedback and self-assessment might also help identify supervisors at greater risk of engaging in destructive leader behaviour, such as those with a history of such behaviour (Johns, 1978), or where the age or experience of the subordinate surpasses that of the supervisor (Whittington, Goodwin & Murray, 2004). These individuals may benefit from supplementary training in areas such as negotiation, anger management, and emotional intelligence. Equally, subordinates must be educated in terms of the expectations and responsibilities associated with supervisor-subordinate relationships and the relationship between leader and follower.

One final implication of the findings presented in this paper relates to the moderating effect of subordinate continuance commitment and work-related meaning on the relationship between subordinates perceptions of interactional justice and upward bullying. Although there is substantial evidence in the Industrial/Organizational psychology literature suggesting that enhanced employee work-related meaning and continuance commitment can lead to a substantial payoff in terms of employee performance (Drach-Zahavy, 2004; Kerr & Jermier, 1978; Podsakoff, Mackenzie, Bommer, 1996; Whittington, Goodwin, & Murray, 2004), on a purely practical level, the findings of this paper suggest that the positive effects of increased subordinate continuance commitment and work-related meaning might be compromised if subordinate perceptions of interactional justice are low; therefore organizations also need to include the role of justice perceptions in considerations of subordinate continuance commitment and meaning.

There are also implications for the academic community in terms of identifying future research directions which will validate and build on the findings of the current paper.
Future Research Directions

There are several fruitful avenues for future research suggested by the findings of this paper.

One possibility is to examine additional workplace factors for potential mediating or moderating effects on the destructive leadership-upward bullying relationship. Several moderating variables including trait anger (Douglas & Martinko, 2001), target separation (Robinson & Bennett, 1995) and social status (Aquino, Galperin & Bennett, 2004) have been identified in the literature, however one important potential moderator of the relationship between destructive supervisory leadership and upward bullying - negative reciprocity beliefs (the negative norm of reciprocity; Gouldner, 1960) - has not yet been fully explored.

The negative norm of reciprocity (Gouldner, 1960) captures the principle of retaliation at the heart of this paper's conceptualization of the relationship between destructive supervisory leadership and upward bullying. The norm of reciprocity states that individuals may be guided by negative reciprocity beliefs whereby they believe that when someone mistreats them or they perceive a lack of interactional justice, it is acceptable to retaliate in return (Gouldner, 1960). Yet, Cropanzo and Mitchell, (2005) noted that individuals vary in their beliefs about the appropriateness of negative reciprocity, such that some individuals may feel it is more appropriate to 'turn the other cheek' rather than retaliate. Suggesting a potential moderating effect of negative reciprocity beliefs on the relationship between subordinate perceptions of interactional justice and the incidence of supervisor directed upward bullying. This notion receives additional support from research conducted by Mitchell and Ambrose, (2007) indicating that negative reciprocity moderated the relationship between abusive supervision and counter-productive behaviour (including bullying), targeting supervisors.

To some extent, the constructs of abusive supervision and destructive leadership overlap, in the sense that both constructs rely on subordinate perceptions of negative supervisory behaviour and take an organizational justice approach to understanding the behavioural responses and reactions of subordinates to these perceptions (Tepper, 2000). That the two constructs share these characteristics suggests that the moderating effect of
negative reciprocity reported by Mitchell and Ambrose (2007), may generalize to the relationship between destructive leadership and upward bullying. Empirical evidence to support the generalization of Mitchell and Ambrose’s (2007) finding to upward bullying, would make an important contribution towards merging the abusive supervision and upward bullying literature, and extending the knowledge of both phenomena.

The current paper provides some evidence to support the notion that perceptions of interactional justice partially mediate the relationship between destructive supervisory leadership and upward bullying. However, a more comprehensive understanding of the way in which destructive leadership leads to upward bullying is likely to be achieved by investigating other potential mediators of this relationship. Several possibilities for future research in this area are identified in the bullying literature, including personality characteristics (Bartol, Tein, Matthews & Martin, 2005); perceived organizational tolerance of workplace bullying (Conger, 1990); and the frequency of supervisor-subordinate contact (O’Moore & Lynch, 2007), but there are other workplace factors, such as distributive justice, that are equally worthy of examination.

Distributive justice reflects the perceived fairness of outcomes. Aquino, Lewis and Bradfield (1999) found that individuals who perceived their distribution of inputs (time, effort, experience and so on) relative to outputs (for example, production targets, grades, or performance ratings) as unfair, blamed their supervisor for the unfair distribution and made some attempt towards justice restoration. When distributive justice is perceived as lacking, one commonly employed restoration strategy is reduce the level of inputs by engaging in counter-productive behaviour to rebalance the input-output ratio (Cohen-Charash & Spector, 2001). Behaviours associated with input reduction, such as ‘Deliberately working below your level of competence’ and ‘Ignoring key areas of responsibility and importance in favour of more trivial tasks’ are included on the NAQ (Einarsen & Hoel, 2001), implicitly implying that deliberate attempts to reduce inputs may constitute workplace bullying behaviour. Accordingly, low distributive justice might be expected to lead to supervisor-targeted bullying. Moreover, destructive leadership has been shown to promote perceptions of low distributive justice by restricting the ability of subordinates to produce satisfactory quality outcomes,
relative to perceived inputs (Skogstad et al., 2007). Taken together, these findings raise the possibility that perceived distributive justice may also partially mediate the relationship between destructive leadership and supervisor-directed upwards bullying.

Accurate measurement of bullying and other forms of anti-social or undesirable behaviour has always presented problems for researchers, and it is important to recognise measurement issues as a potential limitation in the present research. An inherent problem of the self-report approach employed in the current research, is the potential for common method bias arising from the subjective nature of the data (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). Moreover, relying completely on a single source of self-reported data increases the potential for social desirability bias to distort the magnitude of the relationships between predictor and dependent variables (Lindell & Whitney, 2001; O'Moore, Kirkham & Smith, 1997).

Although the wording of the NAQ (Einarsen & Hoel, 200) attempts to overcome this problem by avoiding any explicit reference to the term 'bullying', it is likely that a number of the described behaviours, such as 'Making false allegations against your supervisor' will be viewed as socially undesirable by respondents. However, given the focus on affective and behavioural responses to the perceived rather than the objective environment; the difficulty of obtaining uncontaminated measures of bullying behaviour; and ethical concerns with the possibility of putting research participants at risk in the accumulation of evidence of workplace bullying, anonymous self-reports provide the closest available approximation of these issues (for a more extensive discussion of these issues, see Fox & Spector, 1999).

At the same time, it is important to acknowledge the need for creative research designs using more objective sources of data. A good example of one such study is Perlow and Latham's (1993) longitudinal study using recorded instances of abusive behaviour as the dependent variable. Future research might incorporate peer and supervisor reports of the employees bullying behaviour (Heacox, 1996), such as survey dyads' consisting of an employee's self-report of perceptions of destructive leadership and superior reports of the behaviours of that individual.
Conclusion

The current research was designed as a preliminary investigation of the link between subordinate perceptions of destructive supervisory leadership and upward bullying, and the mediating and moderating roles of perceived interactional justice, continuance commitment and work-related meaning in this relationship. Perhaps due to the often correct perception that those in lower levels of an organization are more vulnerable to workplace bullying than those further up the organizational hierarchy, upwards bullying has been largely overlooked as an organizational and personal issue of considerable importance (Keashly & Jagatic, 2003; Rayner, Hoel & Cooper, 2002). As a result, the ways in which organizations conceptualize and address workplace bullying is limited, with little understanding that workplace bullying can occur at all levels within an organization, and even less understanding of the aetiology of this particular form of workplace bullying. In light of the vital organizational role played by supervisors and managers in determining performance outcomes, understanding upward bullying is even more important (Bartol, Tein, Matthews & Martin, 2005). By conceptualizing upward bullying as a retaliatory response to destructive leadership the current study provides organizations and the academic community alike, with a more comprehensive understanding of upward bullying whilst making a valuable contribution towards the construction of an upward bullying model on which to base intervention strategies. In addition, this paper offers the academic community several fruitful avenues for future empirical research, and suggests a number of practical organizational strategies and interventions aimed at minimizing the negative impact of upward bullying in the workplace.
References


77


Appendix A

Leadership/Supervisory Style and Subordinate Workplace Relationships
Participant Information sheet

Please read the following note before completing the questionnaire.

You are invited to participate in a research project exploring the nature of relationships between individuals in subordinate positions and those in leadership/supervisory positions. The aim of the project is to contribute towards a greater understanding of the relationships between subordinates and their supervisors. A comprehensive understanding of the subordinate/superordinate dynamic will promote the development of more effective strategies and intervention measures designed to enhance the quality of these interactions.

Belinda Wallace is carrying out this project as a course requirement for the MSc in Applied Psychology, under the joint supervision of Dr Linda Trenberth, and Dr Lucy Johnston. Belinda can be contacted by email at bmw38@student.canterbury.ac.nz. Linda can be contacted by telephone on 364 2987 ext 3658, or by email at linda.trenberth@canterbury.ac.nz; and Lucy can be contacted by telephone on 364 2967, or by email at lucy.johnston@canterbury.ac.nz. They will be pleased to discuss any questions you may have about participation in the project.

Aggregate results of the project may be published, but you are assured that all of the data gathered in this investigation will remain confidential. To ensure complete anonymity, your name and any additional characteristics, which may identify you as a participant, are collected for consent purposes only. This information will be available only to the researcher and will be secured in a locked data cupboard within the Psychology Department. There is no possibility of linking a particular participant with their data.

You have the right to withdraw your participation in the project at any time, including withdrawal of any information you have provided, until your questionnaire has been added to the others collected.
This research has been reviewed and approved by the University of Canterbury Human Ethics Committee.

Please now answer the following questions.
The next 6 pages are for the questionnaire, which you can download and print but not save. Blank pages to show the page numbers (for my benefit mostly).
Leadership/Supervisory Style and Subordinate Workplace Relationships
Participant Debriefing

Thank you for participating in this study of subordinate/supervisor relationships. The key objective of this research is to conduct a preliminary exploration into the nature of relationships between supervisors and their leadership style and the effect this has on subordinate behaviour. Empirical research specifically focusing on the nature of subordinate behaviour towards supervisors in organizations has been minimal and there will be unique contributing factors which require more in-depth investigation.

The 120 items on the questionnaire measured four key components: your perceptions of your supervisor's leadership style, the importance you place on your work, the ease with which you could terminate the relationship with your current supervisor, and the frequency you have engaged in specific negative behaviours directed toward your supervisor. The aggregated data will be subject to a variety of statistical analysis techniques in order to examine and understand better the nature of the relationship between individual perceptions of supervisory leadership style and particular responses to it.

Certain experiences can result in some degree of emotional distress or mental stress for individuals, and it is possible that the content of this study has raised some issues for some participants. The well-being of participants is of primary concern of the researcher, thus all participants are invited to discuss any relevant issues with a member of the research team (contact details are provided in your information sheet) or get specialized guidance and support which is available from a wide range of professional services and support groups some of which are listed below. Many of the services listed are free of charge, or by donation.

• University of Canterbury Psychology Centre
  Email: psychclinic@canterbury.ac.nz
  Telephone (03) 3439-627

• Citizens Advice Bureau (CAB) (www.cab.org.nz)
  Email: cab.christchurch@xtra.co.nz
  Telephone: (03) 3653-139
• MHERC (Mental Health and Resource Centre) (www.mherc.org.nz)
Email: mherc@xtra.co.nz
Free phone: 0800 424 399

Your research related questions and queries are welcome at any time.
Once again, thank you for your time.