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# Workaholic Worker Type Differences in Work-Family Conflict: The Moderating Role of Supervisor Support and Flexible Work Scheduling

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## ABSTRACT

**Purpose:** This study had three aims. Firstly, to examine the validity of the workaholism triad as compared to the workaholism dyad. Secondly, to test the relationship between workaholism and work-family conflict. Thirdly, to explore the three-way relationships between worker type, WFC and supervisor support and flexible work schedules.

**Methodology:** Participants consisted of 169 workers employed in the legal industry. The sample used was respondent-driven and questionnaires were self-administered. Workaholism was operationalised using 2 dimensions of the Spence and Robbins (1992) WorkBat: 1) drive to work and 2) work enjoyment, which produced 4 worker types (workaholics, enthusiastic workaholics, relaxed workers and uninvolved workers).

**Findings:** Support was found for McMillan, Brady, O'Driscoll and Marsh's (2002) dyad conceptualisation of workaholism as opposed to Spence and Robbins' (1992) triad model. Specifically it was found that the work involvement subscale had low internal reliability and an unreliable factor structure.

Results demonstrated that worker type was significantly related to WFC. Specifically, workaholics and enthusiastic workaholics experienced significantly more WFC than relaxed and uninvolved workers. Regarding the three-way relationships, it was found that worker type moderated the relationship between schedule flexibility and WFC. Specifically, it was found that enthusiastic workaholics, in contrast to their workaholic counterparts, experienced declining WFC with access to flexible scheduling. Supervisor support was not significant.

**Practical implications:** The current study suggests that blanket policies, designed to promote work-life balance, are unlikely to be effective for all employees. Indeed, it appears that although both workaholics and enthusiastic workaholics experience high levels of WFC, these two worker types may require different support mechanisms in order to achieve greater work-life balance.

**Value of Paper:** Despite their apparent conceptual linkage, the relationship between workaholism and work-family conflict has not been explored in the literature to date. The current study contributes to the field of organisational behaviour both through proposing an additional dispositional antecedent to WFC (i.e. workaholism) and through uncovering an additional consequence of workaholic behaviour patterns (i.e. WFC).

**Keywords:** *workaholism, work-family conflict, family-friendly policies, worker type, organisational behaviour.*

**Categorisation:** Research Paper<sup>1</sup>

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<sup>1</sup> We would like to thank Dr Yuval Kalish for his help with the statistical analyses.

## Introduction

The aims of the current study are three-fold. First, following the call made by McMillan, Brady, O'Driscoll & Marsh (2002) this study examined the validity of the workaholism triad (Spence & Robbins, 1992) as compared to the workaholism dyad (McMillan et al., 2002). Second, given the recent studies by Burke (2000a) and Bonebright, Clay and Ankenmann (2000), which have found a relationship between workaholism and work-life satisfaction, the current study will examine whether levels of WFC vary according to worker type. Third, this study will explore several three-way relationships between worker type, WFC and two organisational variables which have been shown to be related to WFC, that of supervisor support and flexible work schedules.

Workaholism is defined by Spence and Robbins (1992) as a behaviour pattern characterised by high levels of psychological involvement with work, high levels of intrinsic drive to work and low (or high) levels of work enjoyment (a high level of enjoyment describes an enthusiastic workaholic and a low level of enjoyment describes a workaholic). Spence and Robbins' (1992) operationalise their definition of workaholism through the workaholism battery (WorkBat). The WorkBat contains three dimensions to workaholism: work involvement, drive to work and work enjoyment. Spence and Robbins confirmed the existence of six worker-types by conducting a cluster analysis, with the resulting six profile solution being used to classify individuals into their respective groups (see Table I). In subsequent studies, the classification of high or low on each of the workaholism dimensions have been operationalised as those individuals who score above or below the median (Burke, 1999b) or mean (Bonebright et al., 2000) score for a subscale within a particular sample.

Burke (1999b) and Spence and Robbins (1992) have tested the WorkBat across a series of different samples and have shown it to have acceptable reliability, as well as face and construct validity. Discriminant and factor analyses found support for the hypothesised three-factor solution. Furthermore, Burke, Richardson and

Martinussen (2002) demonstrated that the three workaholism dimensions are relatively stable across a six month period, using a sample of Norwegian managers. Hence, in the mid to late 1990's, it was commonly accepted that workaholism was comprised of the three underlying dimensions (involvement, drive and enjoyment) proposed by Spence and Robbins and that these dimensions could be used to categorise people into one of six worker types

Take in Table I

However, McMillan et al. (2002) have recently redefined the notion of workaholism to exclude the work involvement dimension. This is because they found that the work involvement sub-component of the workaholism scale had low convergent validity, an unreliable factor structure, and low reliability. McMillan et al.'s findings are congruent with the results of a study conducted some years earlier by Kanai, Wakabayashi and Fling (1996), who also found that the work involvement measure had low reliability and poor external validity.

Interestingly, and though Burke (1999b) contends that the work involvement dimension is both meaningful and reliable, in most cases, when investigating the consequences associated with the various worker types, Burke has not found significant differences in relation to wellbeing and organisational outcomes between pairs of workers identically classified on drive and enjoyment, but differing in relation to their level of work involvement (i.e., work enthusiasts and relaxed workers; disgruntled workers and workaholics). For instance, in a study using Australian female psychologists, Burke, Oberklaid and Burgess (2004) did not find significant differences between pairs of workers who differed only in relation to their level of work involvement across the following eleven outcome variables: job satisfaction, career satisfaction, career prospects, intent to quit, psychosomatic symptoms, physical health, emotional health, satisfaction with family, satisfaction with relationship, and satisfaction with community. This observation suggests that, in addition to having questionable reliability and validity, the work involvement dimension may be largely redundant in terms of its predictive power.

McMillan et al.'s (2002) finding that the work involvement sub-component of the workaholism scale had low convergent validity, an unreliable factor structure, and low reliability lead them to develop a 2x2 model. This model was adopted from original Spence and Robbin's classifications and contains four worker types: workaholics, enthusiastic workaholics, relaxed workers and uninvolved workers (see Table II).

Take in Table II

Further research is required in order to determine whether the WorkBat would be more validly used via the triad (work involvement, drive and enjoyment) model or dyad (drive and enjoyment) model.

*Research Question 1.* Is work involvement, as defined by the WorkBat, a reliable and meaningful dimension of workaholism?

*Research Question 2.* Should workaholism be conceptualised as a triad or dyad?

#### A. *Workaholism and Work-Family Conflict*

The literature has found consistent support for the proposition that workaholics experience lower levels of psychological well-being and higher levels of stress than non-workaholic individuals, regardless of the way in which workaholism is operationalised. For instance, Burke (2000b) found that enthusiastic workaholics and relaxed workers had higher levels of emotional wellbeing and fewer psychosomatic symptoms than workaholics. In addition, Spence and Robbins (1992) found that workaholics were more likely than other worker types to suffer from reduced physical health.

One potential, yet unexplored, consequence of workaholism may be increased levels of work-family conflict (WFC). WFC can be defined as a situation where the "role pressures from the work and family domains are mutually incompatible in some respect" (Greenhaus & Beutell, 1985, p. 77).

From the perspective of management researchers, WFC is an important variable to study, as it has been found to be associated with a number of negative consequences at both the individual and organisational level. WFC has been linked to a number of adverse wellbeing and health outcomes. WFC has been shown to be associated with depressive symptomatology (Frone, Russell & Cooper, 1992),

life dissatisfaction (Kossek & Ozeki, 1998) and mental health problems (Frone, 2000). With regards to the work sphere, WFC has been shown to correlate with job-burnout (Allen, Herst, Burck & Sutton, 2000) and job-exhaustion (Kinnunen, Vermust, Gerris & Makikangas, 2003). From the organisation's perspective, WFC has been positively associated with absenteeism (Geoff, Mount & Jamison, 1990) and turnover intentions (Boyar, Maertz, Pearson & Keough, 2003) and negatively correlated with job satisfaction (Bacharach, Bamberger & Conley, 1991; Parasuraman, Greenhaus & Granrose; 1992).

Given these correlates, WFC is an area of growing concern for organizational practitioners and psychologists (Kossek & Ozeki, 1998). With this in mind, researchers have begun to look at both individual and environmental antecedents to WFC. One potential antecedent to WFC may be workaholism.

There are three reasons why WFC might be expected to be associated with workaholism. First, workaholism and WFC may be linked through a third, intervening variable, such as time spent at work. A bi-directional relationship between time spent at work and WFC appears to be fairly well established in the literature (e.g., Fu & Shaffer, 2001). Indeed, Major, Klein and Ehrhart (2002), using structural equation modelling, found that time spent at work would fully mediate the relationship between several antecedents of WFC. However, although the authors included a number of individual and environmental antecedents of WFC (e.g., career orientation, work overload, organisational expectations, organisational rewards, non-job responsibilities, parent demands and perceived financial need), no dispositional factors were considered. Regarding the workaholism literature, Spence and Robbins (1992) found that workaholics and enthusiastic workaholics devoted substantially more time to the work domain compared with uninvolved and relaxed workers. Combining evidence from the above studies, it may be suggested that workaholism is linked to WFC through the fact that it encourages longer working hours. Thus, the introduction of workaholism as a dispositional antecedent could potentially extend the WFC model developed by Major, Klein and Ehrhart.

Second, in addition to being linked through time spent at work, workaholism and WFC may have common dispositional antecedents. This may mean that the two constructs are related beyond that which would be implied if time spent at work fully mediated the relationship between workaholism and WFC. For instance, research has shown that Type A behaviour is related to both workaholism (Booth-Kewley & Friedman, 1987) and WFC (Burke, 1988). Specifically research which has disaggregated Type A behaviour has found that the impatience-irritability dimension of Type A is moderately correlated with the drive component of the workaholism scale (McMillan, 2000) and with WFC (Bruck & Allen, 2000).

A third reason for an expected relationship between workaholism and WFC is that they may share common environmental antecedents. For instance, Burke (2002) found that workaholics perceived their workplace environment as more demanding, stressful and less supportive of work-life balance. Furthermore, there are a number of qualitative studies suggesting that organisational cultural norms regarding high levels of emotional and time commitments (factors which Spence and Robbins, 1992, identified as being potentially related to workaholism) generate increased WFC (Fried, 1998; Perlow, 1995). Of course, the notion that workaholism and WFC are linked through environmental antecedents is dependent on the adoption of an interactionist approach to workaholism. Authors adopting a dispositionalist perspective may argue that workaholics' perception that their work environment is more demanding is either a consequence of their reduced capacity to cope with stressful environments (due to their high needs for control) or a means of justifying their indulgent, obsessive behaviour patterns.

Despite the intuitive conceptual linkages between workaholism and WFC, this relationship has been the subject of limited empirical examination. According the second aim of the current study is to investigate whether workaholism contributes uniquely to our understanding of WFC. The following hypotheses are presented.

*Hypothesis 1.* Worker type (workaholic, enthusiastic workaholic, uninvolved worker and re-

laxed worker)<sup>i</sup> will contribute significantly to work-family conflict, once demographic factors (marital status, children, and gender), environmental factors (supervisory support and flexible work schedules) and number of hours worked have been accounted for.<sup>ii</sup>

*Hypothesis 2a.* Workaholics will experience higher levels of work-family conflict compared with enthusiastic workaholics, uninvolved workers and relaxed workers.

*Hypothesis 2b.* Enthusiastic workaholics will experience higher levels of work-family conflict compared with uninvolved and relaxed workers.

*B. Workaholism, Work-Family Conflict and the Workplace Environment*

The third aim of this study is to consider a number of three-way relationships to investigate whether worker type moderates the relationship between supervisor support and WFC, and flexible work practices and WFC. It is important to note that predictions about these relationships are largely exploratory, particularly given that the bi-variate relationships between workaholism and all the other variables in the study have yet to be empirically tested.

The presence of a supportive supervisor has been associated with a variety of positive outcomes for both the employee (e.g., increased job satisfaction, positive mood) and the organisation (e.g., affective commitment, performance and reduced withdrawal behaviour) (Rhoades & Eisenberger, 2002). In relation to the WFC literature, Fu and Shaffer (2001) demonstrated that high levels of supervisory support buffers the impact of work and family stressors on WFC. Specifically, they suggested that a supportive supervisor reduces the tendencies for these stressors to transform into symptoms, such as tension, irritability and depression. Furthermore, Allen (2001), also found that supportive supervisors increased employees' perceptions that the organisation was sensitive to their family commitments, which in turn reduced the level of WFC experienced. This buffering role of supervisor support is consistent with Glass and Estes' (1997) contention that there are rational reasons for adopting family friendly policies beyond that of isomorphic pressures, particularly given that such policies are associated with a number of posi-

tive organisational outcomes, including the ability to attract high calibre staff and improved productivity.

Although the finding that supportive supervisors help to reduce WFC is fairly robust, (see Elloy & Mackie, 2002, for an exception), there is no research exploring whether the positive impact of supervisor support on reducing WFC is moderated by the dispositional characteristics of the employee. Indeed, it may be postulated that, although the majority of employees will respond positively to a supportive supervisor, workaholics may fail to recognise, or make use of, supervisor support. Indeed, a supervisor who is encouraging greater balance between work and family domains may even be resented by the workaholic individual because they may believe that their supervisor's role is to encourage them to spend time working, rather than to spend less time at work so as to spend more time with their family. For workaholics, the very suggestion that they should spend less time at work may create anxiety, given their inability to regulate their compulsion to work. Such a scenario may contrast with that of enthusiastic workaholics, who, given that they tend to experience higher levels of extra-work satisfaction vis-à-vis workaholics and are driven to work primarily by enjoyment, rather than compulsion, may be more likely to utilise a supportive supervisor in order to reduce the level of WFC they experience. The contention here is that enthusiastic workaholics are oriented to achieve fulfillment and satisfaction. Hence, this worker type will seek out practices, resources and supports that lead to improved enjoyment and reduced stress.

Despite the fact that relaxed and uninvolved workers may experience relatively low levels of WFC, the presence of a supportive supervisor is still likely to further reduce WFC for these individuals. This is because a support supervisor will still assist them in fulfilling domestic responsibilities and reduce the probability of these individuals being punished if they choose to prioritise family over work. Indeed, such a contention is consistent with the negative association which has been found between supervisor support and WFC in the literature.

*Hypothesis 3a.* The relationship between supervisor support and work-family conflict will be moderated by worker type in that workaholics will not experience a decline in work-family conflict as perceived levels of supervisor support increase.

*Hypothesis 3b.* Enthusiastic workaholics, uninvolved workers and relaxed workers will experience a decline in work-family conflict as perceived levels of supervisor support increase.

Flexible work schedules have been associated with lower levels of WFC (Hammer, Allen & Grigsby, 1997). Hammer et al. (1997), in a survey of 399 dual-earner couples, found that access to flexible scheduling resulted in a significant reduction in both the individual's and her/his partner's WFC. Furthermore, Thomas and Ganster (1995) found schedule flexibility to be associated with reduced WFC, primarily through the mediating effect of increasing control over work activities.

However, whether flexible organisational policies will have a beneficial effect independent of the specific dispositional characteristics of particular employees has yet to be investigated. It is contended in this paper that worker type may moderate the above associations, such that workaholics will experience high levels of WFC independent of their capacity to change work schedules. The logic underpinning this contention is that these types of workaholics may fail to take advantage of flexible schedules. Indeed they may actually use their capacity to alter their work schedule in a flexible manner to increase the time they spend at work by working outside previously established, socially acceptable hours. This might have the effect of further increasing work intensification, perhaps leading to even higher levels of WFC. In contrast, enthusiastic workaholics, who are primarily driven to work by enjoyment rather than compulsion, may take advantage of flexible practices, which will enable them to actively pursue, with the assistance of their organisation, improved work-life balance, and thus lower levels of WFC. The logic is that through flexible scheduling, enthusiastic workaholics are able to ensure that work does not take over their lives to the point where they experience diminishing satisfaction in both

work and family domains due to high levels of stress generated by inter-role conflict.

Similarly, despite the fact that uninvolved and relaxed workers may experience relatively low levels of WFC, it is still contended that the availability of flexible practices will further reduce WFC, as such policies will enhance these employees capacity to shift resources between domains, as well as enabling them to mould work demands around their family commitments.

*Hypothesis 4a.* The relationship between flexible work practices (i.e., the ability to alter weekly schedules) and work-family conflict will be moderated by worker type such that workaholics will not experience a decline in work-family conflict if they have the capacity to alter their schedules on a weekly basis.

*Hypothesis 4b.* Enthusiastic workaholics, uninvolved workers and relaxed workers will experience a decline in work-family conflict if they have the capacity to alter their schedules on a weekly basis.

## 2. METHOD

### A. Participants

One hundred and sixty-nine Australian employees working in the legal industry (solicitors, paralegals and administration staff) formed the sample for this study. The sample was collected from the Greater Melbourne area in Victoria. The majority of participants were female ( $N = 112$ , 66), managers or professionals ( $N = 128$ , 76%), worked full-time ( $N = 117$ , 69%), were married or living with their partner ( $N = 141$ , 83%) and had children ( $N = 143$ , 85%;  $M = 1.8$ ). The participants ranged in age from 20 to 60 ( $M = 40.52$ ;  $SD = 8.18$ ) and the median number of hours of paid work per week was 38 ( $M = 35.68$ ;  $SD = 9.23$ ), while the median hours of unpaid overtime per week was 2 ( $M = 5.45$ ;  $SD = 8.15$ ).

The current study targeted professionals because early evidence suggests that the number of workaholics may be higher in professional, as opposed to non-professional, samples (Burke, 2000b). The legal profession was chosen primarily because it has not been explored in the workaholism literature to date, but one would expect it to be associated with both high levels of workaholism and high levels of work-family conflict due to the inflexible na-

ture of the job (owing to minimum requirements for billable hours), the substantial number of hours worked, the high-performance culture and the high levels of commitment expected by organisations (Molvig, 2004).

By way of background, it is worth noting that participants were employed in the legal industry, which is classified as being part of the broader business services sector (Australian Bureau of Statistics, 2006). The business services sector is responsible for employing 9.6% of all Australian workers, 45.5% who are female (Australian Bureau of Statistics, 2005).

### B. Measures

#### 1) Workaholism Scales

Spence and Robbins (1992) workaholism scales were used to test the three components of workaholism: work involvement (8 items;  $\alpha = .65$ ; e.g., "I get bored and restless on vacations when I haven't anything productive to do."), feeling driven to work (7 items;  $\alpha = .85$ ; e.g., "I seem to have an inner compulsion to work hard.") and work enjoyment (10 items;  $\alpha = .88$ ; e.g., "My job is more like fun than work."). Answers were given on a 5-point Likert-type scale, ranging from 1 (*not at all like me*) to 5 (*very much like me*). Some items were reversed, however scores on each dimension were aggregated such that high scores indicate higher levels of drive and enjoyment.

#### 2) Work-Family Conflict

Work-Family Conflict was assessed using a 16-item scale developed by Bohlen and Viveros-Long (1981). A 5-point Likert scale, ranging from 1 (*never*) to 5 (*very often*), was used to determine the frequency with which participants experienced concerns about work roles interfering with family roles ( $\alpha = .73$ ; e.g., "I worry whether I should work less and spend more time with my children."). High scores reflect higher levels of WFC.

#### 3) Supervisor Support

Supervisor support was measured with a 9-item scale developed by Shinn, Wong, Simko and Ortiz-Torres (1989) ( $\alpha = .74$ ; e.g., "My supervisor juggled tasks or duties to accommodate my family responsibilities."). Respondents reported how often their supervisors had engaged in specific supportive behaviours over the past 2 months on a 5-point Likert-type scale (1 = never; 5 = very often).

#### 4) *Flexitime*

Flexitime was assessed through a question developed by Thomas and Ganster (1995), which attempted to assess job flexibility. Participants were asked to state whether or not they could change their work schedules or shifts on a weekly basis (y/n).

#### **Demographics**

Information pertaining to age, gender, professional status, number of children, presence of young children, and education levels was obtained.

Gender was given particular attention in the current study and was entered as a co-variate in the statistical analysis. This is based on research that suggests that gender may be related to both workaholism and WFC. This literature will be briefly discussed below.

Although, a-priori, it may be expected that males are more inclined to be workaholics due to social norms and expectations regarding work and family prioritisation across gender (Brough & Kelling, 2002), there is little research to support this contention. In fact, the relationship between gender and workaholism in the literature is ambiguous, with some studies suggesting that workaholics are more likely to be male (Harpaz & Snir, 2003) and others suggesting females are more likely to be workaholics (Spence & Robbins, 1992). Other researchers have found no significant differences across gender (Burke, 1999a).

In addition, Gender is a variable that many researchers have postulated to be related to WFC (Kossek & Ozeki, 1998). Specifically, it has been hypothesised that, due to the historically greater involvement in the domestic sphere that females have (a product of biological necessity and social expectation of child rearing) and their increasing involvement in the labour force; they will experience greater WFC than their male counterparts (Boles, Wood & Johnson, 2003; Hoschild, 1989). However, contrary to expectations, in their meta-analysis of studies into work and family domain interactions, Kossek and Ozeki (1998) found that, despite females reporting greater WFC than males, this relationship was not statistically significant. This suggests that men are equally as burdened by the difficulties associated with balancing work and family life as women.

#### C. *Procedure*

Snowball sampling was used via six key informants. The informants each distributed 50 questionnaires to colleagues who worked in the legal industry. Participation was voluntary and confidential. Of the 300 surveys distributed, 187 were returned (62% response rate). This rate compares favourably to those from other respondent-driven studies in the workaholism area (e.g., McMillan et al, 2002: 53%). Completed questionnaires were returned via postage paid envelope to the university.

### 3. RESULTS

Given the sample size ( $n = 169$ ) and the anticipated medium effect size, statistical power for the various study hypotheses was deemed to be adequate (Cohen, 2002). Further, all of the variables analysed met the assumptions of homogeneity, linearity and normality.

#### A. *WorkBat: Triad vs Dyad*

***B. Research questions 1 and 2 asked whether work involvement is a reliable and meaningful dimension of workaholism and, hence, whether a triad (including work involvement) or a dyad (excluding work involvement) is the most valid way to operationalise worker types in the current sample. These questions were investigated via factor analysis, reliability analysis and  $\chi^2$ .***

#### C. *Factor Analysis.*

An exploratory factor analysis was undertaken across the workaholism items using maximum likelihood, restricted to a maximum of three factors (representing the three dimensions of the WorkBat) (Hair, Anderson, Tatham & Black, 1998). Given that there was no reason to assume from the literature that the workaholism dimensions were independent of each other, a direct oblimin rotation with Kaiser Normalisation was performed (Hair et al., 1998). Resultant analyses revealed that the three factor solution was not an accurate representation of the data, demonstrating poor 'goodness-of-fit' ( $\chi^2 (228)=390.57, p<.001$ ). All of the items from the drive and work enjoyment dimensions loaded adequately on the appropriate scales. In contrast, only three of the eight items representing work involvement had loadings of .34 or greater suggesting, in concurrence with McMillan et al. (2002), that the

work involvement scale developed by Spence and Robbins (1992) does not measure a single, coherent construct.

1) *Reliability Analysis.*

The drive ( $\alpha=.85$ ) and work enjoyment ( $\alpha=.88$ ) subscales demonstrated high internal consistency. In contrast, the work involvement dimension displayed a low to moderate Cronbach internal alpha of .65. Internal reliability of this scale would not have increased had any of the work involvement items been removed from the scale.

2) *Compatibility of 6-Cluster Solution with Workaholism Dyad.*

Following the procedure used by Spence and Robbins (1992), a k-means cluster analysis was conducted to classify respondents into one of 6 groups using all three dimensions of workaholism. Chi-square analysis for independence of observations revealed that the resulting 6-group classification is not independent of the a priori four group classification ( $\chi^2(15)=302.05, p<.001$ ). Thus, classifications of workers along two dimensions were not dissimilar to those generated across all three original dimensions.

3) *Creation of the Workaholism Dyad*

Following Bonebright et al. (2000), individuals who scored above the mean on drive and work enjoyment were classified as high on that particular dimension and individuals scoring below the mean were classified as low.<sup>iii</sup> Table III demonstrates the frequency of the resulting workaholism classifications with the use of two dimensions, drive and enjoyment.

Take in Table III

D. *Bi-Variate Relationships amongst the Study Variables*

Table IV reveals a number of significant correlations between the study variables of interest. The two workaholism dimensions, drive to work and work enjoyment, were significantly, positively correlated. This finding is consistent with Kanai et al.'s (1996) study, although other authors, such as Burke (2000d), have not found a relationship between drive and enjoyment.

Drive to work and WFC shared the strongest zero-order correlation ( $r_s = .45$ ) of all the variables explored in the matrix. This finding provides initial support for the hypotheses

that the two workaholic worker types (who both score high on drive) will experience the highest levels of WFC. Drive was also significantly related to employment status, with full-time workers experiencing greater tendencies to work compulsively than part-time workers.

Work enjoyment demonstrated a significant correlation with supervisor support. The finding implies that individuals who enjoy their work perceive higher levels of support from their supervisor in balancing work and family commitments. Or vice versa, that people with higher perceived levels of supervisor support enjoy their work more (because they are supported).

E. *Take in Table IV*

F. *Hypothesis 1: The Unique Contribution of Worker Type to Work-Family Conflict*

A hierarchical multiple regression analysis was used to investigate whether worker type contributed uniquely to work-family conflict beyond the other established correlates of work-family conflict (gender, hours paid work, and hours unpaid overtime).<sup>iv</sup> The three established WFC correlates were entered in the first block and the four different worker types were entered in the second block as dummy variables. Upon entering the first set of variables, the model was significant,  $F(3,149) = 6.09, p < .01$  and explained 11% of the variance. Inclusion of the worker type variable lead to a significant model,  $F(6,146) = 7.40, p < .001$  and increased the prediction of the model by an additional 12% ( $r^2 = 0.23$ ).

G. *Hypothesis 2: Difference in Work-Family Conflict between Worker Type*

An analysis of co-variance (ANCOVA) was calculated on participants' ratings of WFC, with worker type entered as the independent variable and gender entered as a co-variate. All of the assumptions of ANCOVA were met. The model was significant,  $F(4,164) = 8.50, p < .001$  and explained 17% of the variance. Gender as a co-variate was found to be significantly related to WFC,  $F(1,164) = 5.72, p < .05$ , indicating that females experienced higher levels of WFC than males. After adjusting for gender, the level of WFC experienced varied significantly with worker type  $F(3,164) = 9.85, p < .001$ .

As the independent variable had four levels, it was not possible to compare all combinations of group means using pre-planned comparisons (Tabachnick & Fidell, 1989). Thus in order to test Hypothesis 2a, that is, that workaholics would experience higher levels of WFC than the three other groups, post-hoc analysis using the Scheffe test was performed. Hypothesis 2a was partially confirmed. Workaholics experienced higher levels of WFC than relaxed workers ( $p < .01$ ), but did not differ from uninvolved workers ( $p > .05$ ) or enthusiastic workaholics ( $p > .05$ ). Hypothesis 2b was supported: enthusiastic workaholics experienced higher levels of WFC than uninvolved workers ( $p < .05$ ) or relaxed workers ( $p < .001$ ). Enthusiastic workaholics and workaholics did not significantly differ in terms of the level of WFC experienced ( $p > .05$ ). Table V presents these results, clearly showing that enthusiastic workaholics experience the highest levels of WFC, and relaxed workers the lowest.

Take in Table V

#### *H. Hypothesis 3: Worker Type, Supervisor Support and Work-Family Conflict*

A two-way ANCOVA was conducted to investigate whether worker type moderated the relationship between supervisor support and WFC. According to Hair et al. (1998) the use of continuous independent variables is inappropriate for exploring moderation relationships, as it results in the generation of groups which are too small to be used in ANOVA. Consequently, supervisor support was split by quartiles, so as to generate four levels (very low support, low support, high support and very high support). Following this adjustment, all of the assumptions of ANCOVA were met. The means and standard deviations are presented in Table VI. The model was significant,  $F(16,152) = 2.77$ ,  $p < .01$  and explained 23% of the variance. The analysis showed a significant main effect for worker type,  $F(3,152) = 10.48$ ,  $p < 0.001$ . However the main effect for supervisor support was not significant,  $F(3,152) = 1.29$ ,  $p > 0.05$  nor was the interaction effect,  $F(9,152) = 0.64$ ,  $p > 0.05$  between worker type and supervisor support. Gender as a co-variate was significant in this analysis,  $F(1,152) = 4.58$ ,  $p < 0.05$ .

Take in Table VI

Given that the study is hypothesising a differential effect between workaholics and the three other worker types, simply testing for the presence of an interaction effect between supervisor support, worker type and work-family conflict is insufficient for investigating the study hypotheses. Thus, in order to explore hypotheses 3a and 3b, the data was split across worker type and planned comparisons were used.<sup>v</sup>

The logic behind the above step is in many ways similar to the argument provided by Tabachnick and Fidell (2001), when describing why univariate analyses might be significant when a multivariate analysis is non-significant. The authors argue that the presence of multiple dependent variables (DV's) may result in "lost" significance, if one of the DV's is significantly related to the IV's, but the other DV's are unrelated. Effectively the presence of redundant DV's dilutes the effect of the would-be significant DV.

Workaholics,  $F(3,37) = 0.19$ ,  $p > .05$ , enthusiastic workaholics,  $F(3,52) = 1.80$ ,  $p > .05$ , uninvolved workers,  $F(3,37) = 0.96$ ,  $p > .05$ , and relaxed workers,  $F(3,27) = 1.16$ ,  $p > .05$ , all failed to demonstrate decreasing WFC with increasing levels of supervisor support. These findings are in support of Hypothesis 3a but fail to support Hypothesis 3b.

#### *1. Hypothesis 4: Worker Type, Schedule Flexibility and Work-Family Conflict*

A two-way ANCOVA was conducted to investigate whether worker type moderated the relationship between access to flexible scheduling and WFC. The means and standard deviations are presented in Table VII. All of the assumptions of ANCOVA were met. The model was significant,  $F(8,160) = 6.55$ ,  $p < .001$  and explained 25% of the variance. The analysis showed a significant main effect for worker type,  $F(3,160) = 10.77$ ,  $p < 0.00$ , and a significant interaction between weekly schedule flexibility and worker type,  $F(3,160) = 4.67$ ,  $p < .01$ . The main effect for weekly schedule flexibility was not significant,  $F(3,160) = 1.09$ ,  $p > .05$ . Gender as a co-variate was significant in this analysis,  $F(1,160) = 5.71$ ,  $p < .05$ .

Take in Table VII

Having established that there was a significant interaction effect, it is still not possible

to directly test the hypotheses, given that it is not possible to ascertain from the interaction exactly where the significant differences between groups lie. Hence, following recommendations of Tabachnick and Fidell (2001), that univariate tests may be used in conjunction with multivariate tests to ascertain which DV's are contributed significantly to the overall multivariate model,<sup>vi</sup> the data was split across worker type and planned comparisons were used to explore whether or not WFC varied with the capacity to alter their schedule on a weekly basis across the four types of workers.

Hypothesis 4a was supported as workaholics did not experience a decline in WFC when they had the capacity to change their schedule on a weekly basis,  $F(1,39) = 0.14, p > .05$ .

Hypothesis 4b was partially supported, as enthusiastic workaholics experienced a significant decline in WFC if they had the capacity to alter their schedule on a weekly basis,  $F(1,54) = 11.81, p < 0.01$ . Contrary to expectations, uninvolved workers did not experience a decrease in WFC if they could change their schedule on a weekly basis  $F(1,39) = 3.08, p > .05$  nor did relaxed workers  $F(1,29) = 1.02, p > .05$ . Results are displayed in Figure 2.

Take in Figure 1

#### 4. DISCUSSION

The aims of the current study were threefold. First, this study examined the validity of the workaholism triad (Spence & Robbins, 1992) as compared to the workaholism dyad. Specifically, McMillan et al.'s (2002) contention that the work involvement dimension is largely redundant, and therefore should be excluded from the analysis, was investigated. Second, given the recent studies by Burke (2000a) and Bonebright et al. (2000), which have found a relationship between workaholism and work-life satisfaction, this investigation attempted to establish whether levels of WFC varied according to worker type. Third, the study explored several three-way relationships between worker type, WFC and a two organisational variables which have been shown to be related to WFC, that of supervisor support and flexible work schedules.

#### A. *The Triad versus Dyad Model of Workaholism*

In support of McMillan et al. (2002), this study found that work involvement, as operationalised by the WorkBat, was not a reliable and meaningful dimension of workaholism in the current sample. The factor structure in relation to the work involvement dimension was not supported and, furthermore, this particular subscale has a Cronbach internal alpha reliability score below the minimum level normally acceptable to behavioural science researchers (i.e., 0.7; Hair et al., 1998). In addition, in the current study, the inclusion of the work involvement dimension did not have any discernable impact on the categorisation of employees, implying that this dimension was, in this instance, essentially redundant. It may be, as Porter (1996) suggested, that whereas workaholism appears to describe a compulsive pattern of behaviour, it appears that work involvement may actually measure a generalised attitude towards work.

#### B. *Workaholism and Work-Family Conflict*

The current paper explored whether workaholism (as assessed via 4 worker types) is an individual difference variable that predicts levels of WFC. The first hypothesis, that worker type would predict WFC was supported. Indeed, worker type had an additional affect on WFC beyond other well-established antecedents to WFC such as gender and hours worked.

The current findings also helped to tease out the relationship between workaholism, hours worked and WFC. Specifically, the results show that when hours worked are controlled for, workaholics still have a higher level of WFC than non-workaholics. This finding supports Spruell's (1987) contention that the effects of workaholism are not a simple consequence of working long hours and, that the compulsion to work has additional impacts on an individual's wellbeing.

These results of the current study are consistent with Bonebright et al.'s (2000) investigation into work-life satisfaction, in which the authors found that both workaholics and enthusiastic workaholics experienced higher levels of work-life conflict than their non-workaholic counterparts. Thus, it appears that, independent of the level of work enjoy-

ment an individual experiences, having a compulsion to work is associated with a reduced capacity to achieve harmony across the work and family domains.

The failure to reveal a difference between the enthusiastic workaholic and workaholic group in relation to perceived WFC appears to be incongruent with the finding that workaholics experience lower levels of family satisfaction (Burke, 2000a) and purpose in life (Bonebright, et al., 2000) than the other worker types. However, this apparent inconsistency can be reconciled if one considers that theorists within the work-family literature argue that the relationship between WFC and domain satisfaction outcomes may be moderated by dispositional characteristics, such as personality type. For instance, Kinnunen, Vermulst, Gerris and Makikangas (2003) found that emotional stability moderated the relationships between WFC and job burnout and depression, such that neurotic individuals who experienced high levels of WFC suffered from higher levels of job-burnout and depression vis-à-vis emotionally stable individuals. McCrae and Costa (1986) attribute this outcome to the notion that highly neurotic individuals use less effective coping strategies (e.g., hostile reaction, withdrawal and wishful thinking). Thus, conceivably the relationship between WFC and negative domain outcomes may also be moderated by worker type, given that Burke's (2002) findings suggest that workaholics may have inferior coping strategies relative to other worker types.

### *C. Worker Type, Work-Family Conflict and Workplace Environmental Variables*

The notion that worker type may moderate the relationship between supervisor support and WFC was explored in this study, however hypotheses 3 and 4 were only partially supported. There was support for Hypothesis 3a, as the workaholic group failed to demonstrate decreasing WFC as supervisor support increased. However, Hypothesis 3b was not supported, as enthusiastic workaholics, relaxed workers and uninvolved workers also failed to experience reduced WFC with increasing supervisory support. In addition, and contrary to the studies by Fu and Shaffer (2001) and Allen (2001), the current study failed to find a bi-variate relationship between perceived level

of supervisor support and the level of WFC experienced.

These non-significant findings may be a result of the fact that the legal industry was the sample under investigation in the current study. Perhaps in the legal industry, supervisory relationships are less meaningful than they are in other professional environments, conceivably due to the flatter and more polarised (e.g., partners versus solicitors with no middle managers) management structure of legal firms, and thus the reduced likelihood of an employee being accountable to a direct supervisor. In addition, the fact that the legal profession is punctuated by inflexible job roles and intense work requirements that are client-driven rather than supervisor-driven (Molvig, 2004) may also inhibit the capacity of a would-be supportive supervisor to introduce policies which reduce a subordinate's level of WFC.

There was partial support for Hypothesis 4, that is, that worker type would moderate the relationship between flexible scheduling and WFC. As expected, workaholics did not experience reduced WFC if they had the capacity to alter their schedule on a weekly basis. Alternatively, and again consistent with Hypothesis 4, enthusiastic workaholics experienced a significant decline in WFC if they had access to flexible scheduling. However, contrary to expectations, this same non-significant relationship was found for uninvolved and relaxed workers.

There was no bi-variate relationship between flexible scheduling and WFC. The results of the current study were, therefore, discrepant with the findings of Hammer et al. (1997) and Thomas and Ganster (1995). There could be a variety of explanations for this null finding. For instance, the typically inflexible and intensive nature of the legal profession may have meant that flexible scheduling was seldom utilised, even if individuals had access to it.. In addition, asking participants whether they could alter their schedule on a weekly basis may have been too crude a measure of flexible scheduling, and thus perhaps a multi-item measure should have been used for this scale, as it would have enabled a more sensitive measure of flexible scheduling.

Despite the lack of a bi-variate correlation between schedule flexibility and WFC, it is worth noting that amongst the two groups which experienced the highest levels of WFC (and thus conceivably had the most to gain from access to flexible scheduling) findings were in the hypothesised direction. Specifically, enthusiastic workaholics who had access to flexible scheduling took advantage of this resource to reduce their levels of WFC. Alternatively, workaholics did not benefit from access to flexible schedules and continued to experience high levels of WFC. Although this finding appears to be a result of the workaholics' reduced inclination to exercise flexible scheduling, further research is required to tap into the underlying reason why workaholics do not appear to utilise flexible work schedules to reduce WFC.

#### *D. Study Implications*

The current study suggests that blanket policies designed to promote work-life balance, are unlikely to benefit all employees. Indeed, it appears that although both workaholics and enthusiastic workaholics experience high levels of WFC, these two worker types may require different support mechanisms in order to achieve greater work-life balance.

Regarding enthusiastic workaholics, it appears that such individuals may benefit from family-friendly policies, such as flexitime, which will likely reduce the level of WFC they experience. Such an outcome may be a consequence of the enthusiastic workaholics' potentially greater capacity to self-manage and self-regulate vis-à-vis their more compulsive counterparts. This perspective is congruent with the majority of the WFC intervention literature (e.g., Thomas & Ganster, 1995), which argues that if individuals are given the resources to more effectively balance their lives, they will respond proactively by utilising such family supportive policies.

In contrast to enthusiastic workaholics, workaholics who do not derive enjoyment from their work, but are motivated by compulsion, are unlikely to disengage from work, even if given the opportunity to do so. Consequently, when supervising such individuals, management may be required to pursue more active, intrusive intervention strategies. For instance,

Robinson (1996) contends that, as workaholism is primarily a result of a 'diseased family system', organisations should consider providing counselling for workaholics and their families in order to encourage such individuals to more actively and positively participate in the family domain. Furthermore, Haas (1991) suggests that workaholics be given additional support and specific guidance in order to assist them in delegating work and to provide them with training which allows them to more effectively balance competing priorities and tasks.

Given the anecdotal evidence which suggests that compulsive workaholics are likely to be unproductive (Fassel, 1990), such positive intervention on behalf of the organisation appears to be more than good citizenship behaviour, and may actually result in bottom-line benefits for organisations, particularly given that workaholics can have a disruptive impact on the work environment (Porter, 1996). Indeed, it appears that some organisations are beginning to see the benefits of reducing presenteeism (staying at work when sick) and workaholism. For instance, in 2000, Australia and New Zealand banking group limited (ANZ) launched its "Breakout" program, which strongly encourages employees to take their sick days and annual leave and provides provisional leave so individuals can actively participate in community projects (ANZ, 2000).

#### *E. Limitations and Conclusions*

The above interpretation of the relationship between workaholism and WFC has to be made with some caution, give the methodological limitations of the study. For instance, the cross-sectional design limits the authors' interpretation of cause and effect. Indeed, deciphering whether the relationship between worker type and WFC is directly causal, a consequence of a further underlying variable(s) (e.g., the impatience-irritability component of Type-A behaviour, organisational values), or a result of an additional mediating variable would require the implementation of a longitudinal design. Furthermore, in addition to issues around causality, the sole focus on the legal industry means the current study may have limited generalisability (however, as discussed earlier, the legal industry was deliberately targeted, both to remove noise from the study (by

using a sample from a single profession) and because this industry is characterised by high levels of work intensification (Molvig, 2004) and therefore work-family conflict and workaholism).

In addition, as the current investigation was a field study, a self-selection bias has to be considered, whereby individuals may have opted in or out, based on perceived personal relevance of the study topic or other idiosyncratic characteristics. This self-selection bias limits the claim to a representative sample. For instance, workaholics may have perceived themselves as being too busy to complete the study; whereas other employees may have been interested in participating due to the relevance WFC has for their lives. Given what is known about workaholics it would appear that the first point would result in an under-representation of workaholics, whereas the second point would result in an over-representation of people experiencing work-family conflict.

It is possible that the use of a snowball sample also enhanced the selection bias associated with conducting a field study. Specifically, in addition to individuals selecting into the study due to perceived personal relevance, the initial seeds may have distributed the questionnaires to acquaintances who they believed would be interested in participating in the study. The combination of respondent-selection and self-selection biases may explain why the current study consisted of 67% females, given that WFC is still portrayed in the mainstream as primarily a female issue (Eagle, Icenogle, Maes & Miles, 1998).

Notwithstanding these methodological considerations, the current paper suggests that workaholism may be an important contributor to WFC. Although the importance of WFC as an issue of concern for individuals and organisations has been known to the field of organisational psychology since the early 1980's, potential underlying dispositional antecedents of WFC have only recently begun to be examined. Indeed the potential for management to introduce family-friendly policies to curb WFC may well be dependent on a better understanding of the interaction between such policies and individual difference variables, such as worker type.

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1. TABLES, FIGURES AND END NOTES

1) *Table I: The Workaholism Triad: Worker Types as Defined by Spence and Robbins (1992)*

<i>Worker Type</i>	<i>Drive</i>	<i>Work Enjoyment</i>	<i>Work Involvement</i>
Workaholic	High	Low	High
Enthusiastic Workaholic	High	High	High
Work Enthusiast	Low	High	High
Relaxed Worker	Low	High	Low
Disgruntled Worker	High	Low	Low
Uninvolved Worker	Low	Low	Low

2) *Table II: The Workaholism Dyad: Worker Types as Defined by McMillan, Brady, O'Driscoll and Marsh (2002)*

<i>Worker Type</i>	<i>Drive</i>	<b>Work Enjoyment</b>
Workaholic	High	Low
Enthusiastic Workaholic	High	High
Relaxed Worker	Low	High
Uninvolved Worker	Low	Low

3) *Table III: Frequency of Worker Types*

<i>Worker Type</i>	<i>Frequency</i>	<b>Percent</b>
Uninvolved Worker	41	24.3
Relaxed Worker	31	18.3
Workaholic	41	24.3
Enthusiastic Workaholic	56	33.1
Total	169	100.0

4) *Table V: Means (SD) of Work-Family Conflict by Worker Type*

<i>Worker Type</i>	<i>Mean (SD)</i>
Uninvolved worker	3.03 (0.90)
Relaxed worker	2.85 (1.04)
Workaholic	3.27 (0.92)
Enthusiastic workaholic	3.35 (0.78)

5)

6) *Table VI: Means (SD) of Work-Family Conflict, by Supervisor Support (SS) and Worker Type*

<i>Worker Type</i>	<i>Very Low SS Mean (SD)</i>	<i>Low SS Mean (SD)</i>	<i>High SS Mean (SD)</i>	<i>Very High SS Mean (SD)</i>
Uninvolved worker	3.15(1.43)	3.10(2.20)	2.89(2.06)	2.87(1.98)
Relaxed Worker	2.79(2.72)	3.02(2.24)	2.81(1.93)	2.80(1.91)
Workaholic	3.19(1.94)	3.30(1.55)	3.16(2.06)	3.38(1.92)
Enthusiastic Workaholic	3.64(2.07)	3.36(1.42)	3.20(1.41)	3.36(1.53)

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Covariates appearing in the model are evaluated at the following values: Gender = 1.66.

7) *Table VII: Means (SD) of Work-Family Conflict, by Weekly Schedule Flexibility (WSF) and Worker Type*

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<i>Worker Type</i>	<i>Yes WSF</i>	<i>No WSF</i>
Uninvolved worker	2.89 (1.43)	3.13 (1.15)
Relaxed worker	2.98 (1.68)	2.77 (1.27)
Workaholic	3.23 (1.11)	3.31 (1.28)
Enthusiastic workaholic	3.57 (1.14)	3.18 (1.04)

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Covariates appearing in the model are evaluated at the following values: Gender = 1.66.

8) *Table IV: Correlation Matrix*

	1	2	3	4	5	6	7	8	9	10	11	12
1. Drive to work	1.00	-	-	-	-	-	-	-	-	-	-	-
2. Work enjoyment	.25**	1.00	-	-	-	-	-	-	-	-	-	-
3. Work-Family Conflict	.46**	-.07	1.00	-	-	-	-	-	-	-	-	-
4. Supervisor Support	.01	.18*	-.09	1.00	-	-	-	-	-	-	-	-
5. Flexible Weekly	-.12	.09	-.12	.14	1.00	-	-	-	-	-	-	-
6. Gender	.04	-.02	.16*	-.03	.03	1.00	-	-	-	-	-	-
7. Number of dependent children	-.03	.07	-.09	-.10	.02	-.04	1.00	-	-	-	-	-
8. Age	-.05	-.09	.02	-.15*	-.07	-.11	.31**	1.00	-	-	-	-
9. Young children	-.12	.13	-.09	-.16*	.10	-.07	.32**	-.21**	1.00	-	-	-
10. Relationship type	-.02	-.13	-.01	-.18*	.01	-.22**	.18*	-.06	.13	1.00	-	-
11. Professional status	.10	.03	-.02	-.02	-.07	-.35**	.16*	.24**	-.04	.05	1.00	-
12. Employment Status	.24**	.12	.14	-.01	-.010	-.45**	-.09	.09	-.24**	.01	.25**	1.00

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

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

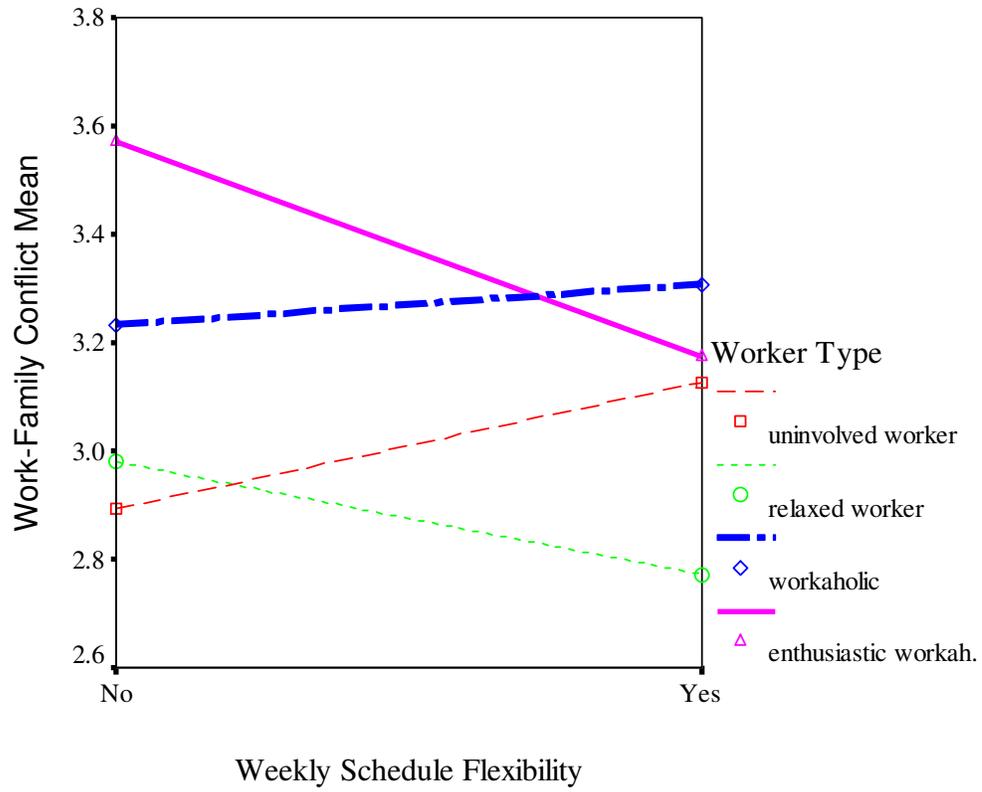


Figure 1. The Relationship between Schedule Flexibility and WFC Moderated by Worker Type

<sup>i</sup> Given that the results section revealed that the work involvement dimension had poor reliability, an unreliable factor structure and was largely redundant in terms of its contribution to classifying worker types, McMillan et al.'s (2002) dyad conceptualisation of the WorkBat was used in the current study. Consequently, hypotheses 1-4 were only made in relation to four worker types as postulated by McMillan et al. (2002), rather than the six worker types put forward by Spence and Robbins (1992).

<sup>ii</sup> Note these factors have been introduced into the regression model as they have been identified as established correlates of WFC (Kossek & Ozeki, 1998; Thomas & Ganster, 1995). Consequently, the onus is on the workaholism variable to explain additional variance in a model of WFC beyond that already accounted for by these factors.

<sup>iii</sup> Although some previous researchers have used median cutoffs for coding high and low (e.g., Burke, 1999b) on the workaholism dimensions, it was decided that mean cutoffs were more appropriate. Mean cutoffs are more likely to capture differences in the number of individuals allocated to particular workaholic groups. It is worth noting that in this particular sample, using mean or median cutoffs does not result in the generation of significantly different groups (over 90% of participants are categorised as the same worker type regardless of whether median or mean cutoffs are used).

<sup>iv</sup> Other potential WFC antecedents, such as number of dependent children, presence of young children, supervisor support and flexible practices were not included, as these variables failed to share significant zero-order correlations with WFC and their inclusion actually reduced the explanatory power of Model 1.

<sup>v</sup> Note that splitting the data across worker type does not inflate the risk of type 1 error but does have the effect of reducing the statistical power of the investigation, as the sample size is reduced, on average, by a factor of four.

<sup>vi</sup> However, unlike Tabachnick and Fidell's (2001) example of a multivariate – univariate analysis, adjustments for type 1 error does not have to be made. This is because, as noted in endnote 4, the fact that splitting the data across worker types effectively reduces the sample size by a factor of four for each analysis, means using this method is effectively sacrificing statistical power, rather than inflating type 1 error.