

Positive pathways to engaging workers: work–family enrichment as a predictor of work engagement

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Abstract

Engaged workers willingly devote their best efforts to their work in terms of their energy (vigor), sustained attention (absorption) and their sense of purpose (dedication), thereby contributing to the optimal functioning and performance of organizations. In consideration of the positive and negative influence of work-life balance for work performance, this study assessed the role played by work-family enrichment as a direct antecedent of work engagement. Two waves of data were collected from an Australian sample of workers with family commitments ($N = 470$). Cross-sectional analyses found that experiences of work that contributed to a positive mood (affect) and to a sense of confidence (capital) in family life were associated with all three dimensions of work engagement and with family satisfaction. Longitudinal analyses demonstrated enduring effects of positive mood, with work-family affect predicting work engagement and family-work affect predicting family satisfaction. The results support the Broaden-and-Build theory (Fredrickson, 2001); which predicts positive experiences, particularly those that enable workers to leave work in a good mood, return benefits in the form of work engagement. The current study provides evidence that enriched experiences at the workplace provide tangible benefits to people’s family lives and long-term returns to organizations in the form of ongoing employee engagement.

Key Words: Work-Family Enrichment, Work Engagement, Positive Psychology

Positive pathways to engaging workers: Work-family enrichment as a predictor of work engagement.

While robust associations between negative work environments and work burnout have previously been identified (e.g., Demerouti, Bakker, Nachreiner and Schaufeli 2001; Maslach, Schaufeli and Leiter 2001), research assuming similar relationships exist between positive work environments and work engagement have produced inconsistent findings (e.g., Schaufeli and Salanova, 2011; Timms, Brough and Graham 2012). According to Carlson, Kacmar, Wayne, and Grzywacz (2006) there are two pathways leading to the positive well-being of employees. The first pathway originates in a resource rich environment (the instrumental pathway), and the second pathway is based on positive affect (the affective pathway). The current paper compares these two pathways in relation to work engagement and provides additional clarity as to what organizations can do to facilitate the engagement of their workforce and thereby contribute to productivity gains. Of particular note is the work-family interface and specifically, the positive influences that contribute to the continued engagement of workers. We emphasize the role played by work-family affect (Carlson et al. 2006, where employees report that they frequently leave work in a good mood) in nourishing sustained (long-term) levels of work engagement.

Work Engagement as an Indicator of Organizational Productivity

Evidence for direct positive associations between work engagement and organizational prosperity and success has been provided (Bakker, Albrecht and Leiter 2011; Brough, Hassan and O'Driscoll 2014; May, Gilson and Harter 2004). The key characteristics of engaged employees include proactive and persistent initiative (Bakker and Schaufeli 2008), the ability to immerse themselves in their work (May et al. 2004) and active responses to challenges within their work (Siu, Bakker, Brough, Lu, Wang, O'Driscoll, Kalliath, Lu and

Timms, in press). The hands-on and voluntary nature of this employee cooperation consequently enables organizations to thrive (Kim and Mauborgne 1998). Central to the definition of work engagement is dedication, or a sense that work fulfills personal psychological needs (Schaufeli and Bakker 2003). Ryan and Deci (2001, 143) associated the capacity to do this with a personal sense of meaning and an enduring form of personal contentment they called “eudaimonic happiness”. Eudaimonic happiness describes an optimum level of well-being where people’s life activities are congruent with their authentic selves and deeply held values. According to May et al. (2004), such conditions enable people to feel that their work is meaningful and to be fully engaged in their work (see also, Dollard and Bakker 2010). The current study therefore emphasizes the close relationship between work engagement and a form of happiness that reflects deep and rewarding engagement in challenging and fulfilling opportunities.

These psychological insights have resonance with Oswald et al.’s (2010) economic research linking happiness at work with more sustained attention and improved productivity. It is apparent, therefore, that recent explanations of organizational performance include the recognition that a positive state of employee well-being is conducive to sustained productivity. The identification of the specific antecedents of this positive employee well-being is now increasingly of scholarly interest (Biggs, Brough and Barbour 2014a; Brough, O’Driscoll, Kalliath, Cooper and Poelmans 2009; O’Driscoll and Brough 2010).

As well as the afore mentioned quality of dedication, Schaufeli and Bakker (2003) described two other dimensions of work engagement: vigor and absorption. *Vigor* is described as an eagerness to invest one’s effort wholeheartedly because one is enthusiastic and has reserves of energy. From an organizational perspective, vigorous employees will persist in the face of difficulties and find their job energizing (see also, Bakker and Schaufeli 2008). The importance of energy (termed “vitality”) for productive employees was also

explained by Self-Determination Theory (SDT: Ryan and Deci 2001). Ryan and Deci noted that vitality is produced when employee's psychological needs for autonomy, mastery and belonging are achieved. The third engagement dimension is *absorption*, which occurs when one is "fully concentrated and deeply engrossed in one's work" (Schaufeli, Salanova, Gonzalez-Roma and Bakker 2002, 75). This definition of absorption is also reminiscent of the complementary constructs of *attention* and *absorption*, described by Rothbard (2001) to define work engagement. According to Rothbard, attention is defined by having available cognitive capacity for one's best thinking, while absorption is defined by the ability to focus on the task at hand.

Work engagement was originally considered as an antonym of psychological burnout (e.g., Maslach et al. 2001). This research assumed work engagement and psychological burnout had similar antecedents, albeit with opposing effects (Bakker and Demerouti 2007; Leiter and Maslach 2004). Therefore, theoretical models explaining psychological burnout as an artifact of the milieu in which people work such as the Job Demands-Resources (JD-R) model (Demerouti et al. 2001) and the Areas of Work-life model (AWS; Leiter and Maslach 2004), have also been applied to explain the occurrence of work engagement. The robust connections between psychological burnout and dysfunctional work environments have led to theoretical explanations that explain burnout. However, extrapolated explanations suggesting favorable work milieus would contribute to work engagement have been inconsistent. For example, Timms et al. (2012) described how workers may report the absence of either work engagement or burnout without the presence of the other, or indeed, may report simultaneous experiences of both psychological burnout and work engagement. Similarly, Schaufeli and Salanova (2011, 39) characterized work engagement as a "slippery concept", suggesting that insights inherited from research of psychological burnout (which focus on the work environment) do not provide a comprehensive explanation of work engagement.

Broaden-and-Build Theory (BBT)

According to Fredrickson (2001), negative emotions trigger specific narrow and targeted action responses (such as attack or escape) which from an evolutionary perspective, have served to ensure our human ancestors' survival. By contrast the experience of positive emotions (such as joy, interest, contentment, pride and love) widen people's thought/action repertoire thereby contributing to expanded thinking, experience and creativity (see also, Fredrickson, Cohn, Coffey, Pek and Finkel 2008). Fredrickson and colleagues' work is commensurate with that of other researchers (Diener, Lucas and Scollon 2006; Sheldon and Lyubomirsky 2004) who have documented positive and enduring changes in emotional set-points. These changes occur in conjunction with "happiness-relevant activities and practices" (Lyubomirsky, Sheldon and Schkade 2005, 111) that are personally meaningful and fulfilling. In turn, the experience of expansion seeds the growth of personal (psychological, cognitive, social and physical) resources which in evolutionary terms may well have given "our ancestors an edge in circumstances that impinged on their survival" (Fredrickson et al., p. 22). This is somewhat reminiscent of Hobfoll's (2001, 349) theoretical concepts of "resource caravans" (where individuals' resources are predictably aggregated together) and "upward gain spirals" (where accumulated resources expand to enable protection against vulnerability to stressors). In contrast, it constitutes a different understanding to that of Ilies et al. (2007) who perceived that while affect at work influenced worker's affect at home, it was transitory in nature and not enduring in quality.

From an economic and business oriented view Oswald, Proto and SgROI's (2010) research applied such resource gains to organizational settings, demonstrating that workers' happiness was directly related to organizational productivity. According to both Barnett and Hyde (2001) and Brough and O'Driscoll (2005), the successful negotiation of multiple roles (such as work and non-work) can contribute to an employee's sense of achievement and

psychological well-being. From an organizational perspective, it indicates that nourishing and developing individuals in a work environment that is psychologically safe and meets the psychological needs of the individual will manifest rewards in terms of personal thriving and corresponding organizational productivity (Brough, O'Driscoll and Kalliath 2007; Dollard and Bakker 2010;). Kim and Mauborgne (1998, 323) referred to this as “intellectual and emotional recognition theory” and argued that when workers experience such an environment “they display a high level of voluntary cooperation based on their attitudes of trust and commitment”. By including these components, the measurement of work engagement, therefore, comprises a barometer of organizational health.

Work and Family Enrichment

The necessity for organizations to appreciate the broader canvases of worker's lives has been increasingly recognized as being important for employee health and work performance. Work-life balance research has identified both the positive and negative impact of multiple work and non-work roles upon employee performance through constructs such as work-life conflict and work-life enrichment (Brough et al. 2009; McNall, Nicklin and Masuda 2010). For example, Carlson et al. (2006) identified dynamic positive synergies between the work and non-work domains, such that one role (work or family) improved the quality of life (e.g., performance and affect) within the second domain (family or work). According to Carlson et al., positive mood gains at work or home benefits relationships in the other domain (work-family affect and family-work affect), and skills developed in one domain can also be usefully applied within the second domain (work-family development and family-work development). While development and affect had equivalent impact on alternate domains, Carlson et al. also found that the need to work (in order to support a family) improved employees' work performance (family-work efficiency). On the other hand, work that affords a sense of fulfillment endows employees with an awareness of accomplishment

and success that transfers confidence and self-esteem into their non-work lives, thus enabling workers to be better family members (work-family capital).

Carlson et al. (2006) suggested that there were two pathways by which functioning in Role B was improved by participation in Role A: (1) a direct *instrumental* pathway via skills, attitudes and material resources; and, (2) an indirect *affective* pathway through positive affect. However, other researchers have noted the occurrence of a direct pathway between positive affect and psychological well-being (e.g., Fredrickson 2001; Ryan and Deci 2000; 2001). Fredrickson et al. (2008) found that meaningful activity expanded participants' emotional set-points and resources which would suggest a *direct* pathway between affect and well-being. The current research aims to clarify these mixed results by testing the occurrence of a direct affective pathway between work-family enrichment and work engagement, as measure of work-related affect.

Work Engagement and Work-Family Enrichment

Existing research examining relationships between work engagement and work-family enrichment have tested different directions of influence between these two constructs. For example, Siu et al. (2010) reported that work engagement significantly mediated the relationship between flexible work arrangements and work-family enrichment. Chen and Powell (2012) also demonstrated how work engagement can build resource gains and, therefore, suggested it was an *antecedent* of work-family enrichment. However, informed by Fredrickson et al.'s (2008) finding that meaningful activity is additive in terms of building enduring personal resources, the current research, describes work engagement as a criterion variable. In accordance with both theoretical and applied explanations of work engagement, it is suggested that employers (whose primary focus is productivity gains, Kim and Mauborgne 1998) will be more willing to accept evidence in relation to an established immediate precursor to enhanced productivity. It is therefore recognized that employers are more likely

to consider methods to enrich employees' working lives as a strategy for achieving productivity gains, rather than for improving employee well-being for its own sake or indeed for the purpose of enriching workers' family lives (Oswald et al. 2010).

Because the current research explores the interface and influences between work and home, family satisfaction was also included in the current research as a family-domain criterion variable. At present there is no family equivalent measure of the work engagement measure and it was deemed that the inclusion of family satisfaction in the current study would provide researchers with a useful indication if such a measure was required. Previous work reported significant associations between work-family enrichment and the non-work dimensions of life/family satisfaction and psychological well-being (Brough et al. 2014; McNall, Nicklin and Masuda 2010; Nicklin and McNall 2013; Wayne, Grzywacz, Carlson and Kacmar 2007). Work-family enrichment variables specifically target the intensification of benefits across domains. It is valuable to distinguish between work-family enrichment and work-oriented and family-oriented outcomes in order to enhance our understanding of the synergy between work and non-work roles.

Work-Family and Family-Work Affect: The Affective Pathway

The two affect directions (work-family and family-work) are anticipated to demonstrate strong associations within both work engagement and family satisfaction. This is in accordance with the predictions of Ryan and Deci (2001) who suggested the occurrence of a robust link between a sense of meaningfulness and fulfillment, psychological well-being and personal happiness that transcends boundary demarcations in people's lives. In addition, the BBT (Fredrickson, 2001; Fredrickson and Joiner 2002) emphasizes the importance of positive emotions in broadening the scope of people's psychological presence in their various activities. Therefore, it is suggested that affect flowing from both work-family and from

family-work will be significantly associated with all three dimensions of work engagement and with family satisfaction:

Hypothesis 1. It is hypothesized that work-family affect will be positively associated with the three dimensions of work engagement (vigor, dedication and absorption; H1a) and positively associated with family satisfaction (H1b), in both cross-sectional and longitudinal analyses.

Hypothesis 2. It is hypothesized that family-work affect will be positively associated with the three dimensions of work engagement (vigor, dedication and absorption; H2a) and positively associated with family satisfaction (H2b), in both cross-sectional and longitudinal analyses.

WF and FW Development, Capital and Efficiency: The Instrumental Pathway

A general sense of well-being, meaningfulness and fulfillment with one's achievements at work (WF capital) is regarded by Carlson et al. (2006) as a resource that improves individual functioning in all domains of life. Therefore significant positive relationships between work-family capital and the criterion variables of work engagement and family satisfaction are predicted. Similarly, skills, knowledge, behaviors, and perspective obtained from one's experiences at work and family life (WF and FW development) are resources which generate benefits across life domains (Carlson et al. 2006). In addition, a sense of focus or necessity to sustain work in order to support a family (FW efficiency) can also be described as a resource that enables employees to be better workers. Therefore, in line with the theoretical tenets of the JD-R model (see, Bakker and Demerouti 2007) we predict that these resources will demonstrate gains in the form of work engagement and (consistent with Frederick and Joiner's 2002 prediction of inter-domain resource benefits) family satisfaction.

Hypothesis 3. Work-family capital will be positively associated with the three dimensions of work engagement (vigor, dedication and absorption; H3a) and positively associated with family satisfaction (H3b), in both cross-sectional and longitudinal analyses.

Hypothesis 4. Work-family development will be positively associated with the three dimensions of work engagement (vigor, dedication and absorption) in both cross-sectional and longitudinal analyses.

Hypothesis 5. Family-work development will be positively associated with family satisfaction in both cross-sectional and longitudinal analyses.

Hypothesis 6. Family-work efficiency will be positively associated with the three dimensions of work engagement (vigor, dedication and absorption; H6a) and positively associated with family satisfaction (H6b), in both cross-sectional and longitudinal analyses.

Method

Participants and Procedure

Employees from 13 Australian organizations volunteered to participate in this research. These 13 organizations were drawn from the finance, health, education, and non-government organization sectors to provide a heterogeneous sample of employees. They ranged in size from 70 to 4,500 employees. Self-report questionnaires were posted in each organization's internal mail system to the research participants and returned via reply-post directly to the researchers. All participants received the same core research instructions. Time 1 surveys were administered in 2008 to approximately 10,000 research participants. Prize draw incentives to encourage survey responses were also issued to all the participants. All participating organizations were emailed a response reminder within one week of the survey closing date to be forwarded to staff. A total of $N = 5,248$ usable Time 1 surveys were returned, producing a response rate of 52%.

The questionnaire was administered for a second time (in 2009), after a 12 month time lag, to a reduced sample (approximately $N = 7,500$) of the Time 1 research participants. During the intervening time one organization (a bank) had merged with a larger bank which withdrew approval for its employees participating in our research ($n = 1,821$). In addition, due to the prevailing economic climate at the time (the Global Financial Crisis; GFC) a marine engineering organization was liquidated and one education agency was restructured, thereby reducing the pool of the original research participants. The 12 month time lag was selected primarily for practical reasons: that is, the participating organizations preferred annual survey administrations. A total of $N = 2,670$ usable Time 2 surveys were returned, producing a Time 2 response rate of approximately 35.6%. Time 1 and Time 2 individual responses were matched via a self-identified codeword inserted on the questionnaires by the respondents. Respondents who could be matched as providing responses to *both* Time 1 and Time 2 questionnaires consisted of $n = 823$. A subset of $n = 470$ respondents fulfilled one of three criteria for the purposes of this paper: (1) had children; (2) were married; or (3) were married with children. This specific sample of $N = 470$ (57% of matched responses) is therefore utilized by this research. This research presents both cross-sectional and longitudinal analyses in order to compare our results with published (mostly cross-sectional) findings and to also test the research hypotheses over time.

The majority of the respondents in this sample were female (77%; $n = 362$), with a mean age of 44.72 years ($SD = 9.25$). Most respondents worked in education (82%; $n = 385$) and 15% ($n = 72$) worked for a not-for-profit organization as social workers and carers (disability, geriatric, and childcare). The majority of respondents (72%, $n = 338$) reported a university level education. Respondents reported a mean work tenure of 13 years ($SD = 10.07$). Most respondents were married or cohabiting ($n = 432$; 92%) and had at least one

child ($n = 280$; 61%), with the majority of these respondents having more than one child ($n = 198$; 71%).

Measures

Work-family and Family-work Enrichment. Work-family and family-work enrichment were measured with the 18-item measure developed by Carlson et al. (2006). The measure contains six subscales: *WF development* (sample item, “My involvement with my work helps me acquire skills and this helps me to be a better family member”); *WF affect* (sample item, “My involvement with my work makes me cheerful and this helps me to be a better family member”); *WF capital* (sample item, “My involvement with my work provides me with a sense of success and this helps me to be a better family member”); *FW development* (sample item, “My involvement with my family helps me acquire knowledge of new things and this helps me to be a better worker”); *FW affect* (sample item, “My involvement with my family makes me feel happy and this helps me to be a better worker”); and *FW efficiency* (sample item, “My involvement with my family causes me to be more focused at work and this helps me to be a better worker”). The enrichment items, therefore, measure transference of the benefits gained in one domain to enhanced functioning in the other domain. Responses were recorded on a five-point scale (1 = *strongly disagree* to 5 = *strongly agree*). Carlson et al. reported Cronbach’s alpha reliabilities of between .73 and .91 for the six constructs. In the current research the following alphas were observed at Time 1 (and Time 2): WF development = .90 (.92); WF affect = .94 (.95); WF capital = .93 (.94); FW development = .89 (.89); FW affect = .95 (.96); and FW efficiency = .92 (.93). The reliability coefficients for the nine composite WF items were .93 (.92) and for the nine FW items .89 (.89). In addition it is noted that Carlson et al. (2006, 141) provide an extensive rationale for the “double barreled” nature of their enrichment items, pointing out that this strategy is “commonly used and reported in the literature to capture the influence of one domain on

another”. In addition, it is noted that exactly the same wording is employed for each item. Item variation occurs only in relation to the level of enrichment targeted.

Family Satisfaction. Edwards and Rothbard’s (1999) three item measure of family satisfaction was included. Respondents answered each item (e.g., “in general, I am satisfied with my family/home life”) upon a seven-point Likert scale from 1 = *strongly disagree* to 7 = *strongly agree*. Edwards and Rothbard reported reliability estimates ranging from .72 to .95. The Cronbach’s alpha achieved in the current research was .96 at both Time 1 and Time 2.

Work Engagement was measured with the short Utrecht Work Engagement Scale (UWES; Schaufeli, Bakker and Salanova 2006). This nine-item measure of work engagement consists of three subscales each comprised of three items: *vigor* (e.g., “At my work I feel bursting with energy”), *dedication* (e.g., “I am proud of the work that I do”), and *absorption* (e.g., “I am immersed in my work”). The UWES is measured on a seven point frequency scale (0 = *never* to 6 = *always*). Schaufeli and Bakker reported Cronbach’s alphas of between .60 and .87 for vigor, between .74 and .90 for dedication, and between .66 and .85 for absorption. The reliability coefficients produced by the current research for Time 1 (and Time 2) were: vigor = .83 (.85), dedication = .85 (.86), and absorption = .79 (.74).

Results

Table 1 provides means and standard deviations of the research variables and shows that the three engagement constructs (absorption, dedication, and vigor) produced higher mean scores at time two. These three differences were each statistically significant in paired samples *t*-tests between each Time 1 and Time 2 variable: absorption $t(469) = 25.24, p < .001$, dedication $t(469) = 20.78, p < .001$ and vigor $t(469) = 23.93, p < .001$. No other significant differences over time were found. This significant increase in mean levels of the three engagement constructs over time was unexpected and does not support the stability of engagement over time which has been observed in other research samples (e.g., Biggs et al.

2014b; Brough, Timms, Siu, Kalliath, O'Driscoll, Sit, Lo and Lu 2013; Manuo, Kinnunen and Ruokolainen 2007). We can only speculate that either the characteristics of this specific research sample (married/partnered and/or having dependent children) or the fact that the majority of the sample were employed in educational organisations contributed to this increase in work engagement over time, although why exactly this should occur requires further investigation. One other explanation is a situational one of 'survivor syndrome' where the experience of the GFC led employees to be subsequently grateful (and perhaps more satisfied and engaged in their work) for their continued employment (e.g., Appelbaum, Delage, Labib and Gault 1997). This explanation also requires further investigation.

Table 2 presents the correlations between the research variables. Correlations between the three engagement variables did not exceed .76, indicating that the subscales of absorption, dedication and vigor share some overlap. The strongest associations were observed between WF capital, and dedication and vigor (H3a). Significant relationships were observed between WF affect and all criterion variables (H1a and H1b). However correlations between WF affect and family satisfaction were considerably lower than those between WF affect and the work engagement variables. This situation was reversed with FW affect and the criterion variable; i.e., correlations between FW affect and family satisfaction were stronger than those between FW affect and the work engagement subscales. While relationships between family-work development (H5) and the criterion variables were significant, the correlation values are quite low indicating a tenuous relationship. This is also the case for relationships between FW efficiency and the criterion variables (H6).

To further test the research hypotheses, hierarchical multiple regressions were conducted cross-sectionally (using the Time 1 engagement and family satisfaction as criterion variables) and longitudinally (using the Time 2 engagement and family satisfaction as criterion variables). Control variables for both sets of regression equations were gender, age,

work status (full-time or part-time) and industry grouping (education, health and other) and these were entered in step 1 of each regression equation. The respective Time 1 criterion variable was controlled by entry at step 2 in each of the four longitudinal regression equations.

Table 3 summarizes the results of the four cross-sectional hierarchical multiple regression equations. WF affect and WF capital achieved significant beta weights with all three dimensions of work engagement and family satisfaction (H1 and H3). Surprisingly FW affect demonstrated a significant negative association with absorption (H2a) indicating that the extension of good mood from family-work was not consistent with absorption in work. There was, however, a significant relationship between FW development and absorption (H2) suggesting that skills acquired from family transferred favorably to the work environment in the form of absorption in work. FW affect provided considerable explanation for family satisfaction (H2a). Overall the regression equations explained 35% of the variance for vigor ($F(10, 468) = 25.74, p < .001$), 36% of the variance for dedication ($F(10, 48) = 26.24, p < .001$), 22% of the variance for absorption ($F(10, 468) = 12.53, p < .001$) and 23% of the variance for family satisfaction ($F(10, 468) = 13.91, p < .001$).

The longitudinal hierarchical multiple regressions (see, Table 4) revealed that the Time 1 criterion variables were the strongest predictors of the Time 2 criterion variables, as was generally expected. WF affect demonstrated an enduring effect over time with all three work engagement variables (H1a) but not to family satisfaction (H1b). None of the three FW enrichment (development, affect and efficiency) variables were significant predictors of work engagement over time (H2a, H5 and H6). FW affect however did demonstrate a relationship with family satisfaction over time (H2b). Overall these equations explained 49% of the variance for Time 2 vigor ($F(1, 468) = 40.17, p < .001$), 43% of the variance for Time 2 dedication ($F(11, 468) = 31.33, p < .001$), 36% of the variance for Time 2 absorption ($F(11,$

468) = 23.50, $p < .001$) and 45% of the variance for Time 2 family satisfaction ($F(11, 468) = 34.45, p < .001$).

Discussion

The current research demonstrated mixed support for the research hypotheses. The results supported Carlson et al.'s (2006) affective pathway proposition, but provided only limited support for the instrumental pathway. Work-family affect demonstrated strong associations with all four criterion variables within the cross-sectional analyses (H1), whereas FW affect only demonstrated positive association with family satisfaction (H2). Family-work affect and absorption demonstrated a significant negative relationship, indicating that contentment emanating from family was not consistent with absorption in work. The longitudinal analyses also partially supported H1 with Time 1 WF affect demonstrating significance in relation to all Time 2 work engagement variables. This was not sustained however with family satisfaction, which was the only criterion variable to demonstrate a significant link with FW affect over time (H2b). Work-family capital (H3) demonstrated significant relationships with all criterion variables in the cross-sectional analyses, indicating that a sense of accomplishment that transferred well to the home environment was consistent with work engagement. The relationship between WF capital and family satisfaction was a negative one suggesting that it was possible that success at work may exact some loss of satisfaction with family life. The cross-sectional WF capital effects were not replicated within the longitudinal analyses, indicating that they were only temporary in nature.

Absorption and FW Affect

The observed negative relationship between absorption and FW affect in the cross-sectional analyses has some resonance with Bakker et al.'s (2011) observation that sustained engagement in work may adversely affect family life as employees assume extra-role work and overtime (see also, Schaufeli and Salanova 2011). It is also reminiscent of Sonnentag's

(2003) finding that absorption in work tasks combined with a heavy workload may inhibit people's ability to achieve recovery (i.e., to *switch off*) from work and to be psychologically present for other important aspects of their lives. Sonnentag also suggested that this may have repercussions on people's attitudes at work and influence their proactive work behavior. Similarly, Schaufeli, Taris, and van Rhenen (2008, 176) also noted that absorption was associated with both work engagement and workaholism, albeit in markedly different ways: "in the case of engagement this motivation is intrinsic (work is fun), whereas in the case of workaholism it is compulsive (being driven to work)".

It is possible, therefore, that work which is interesting and challenging may absorb employee focus for a period of time to the detriment of their contributions to family life. Similarly, it is possible that important personal life events such as marriage or the birth of a child may divert people's absorption in work for a period of time. Previous observations have noted that this issue of role salience does vary over time at an individual level, depending upon external work/family life events (e.g., Brough, O'Driscoll, and Biggs 2009; Brough, Timms, O'Driscoll, Kalliath, Siu, Sit and Lo, in press). Fortunately, the negative relationship between absorption and FW affect found in the current study appears to be temporary, as it was not supported within the longitudinal analyses.

WF Affect and Work Engagement

Carlson et al.'s (2006) affect scale measures cheerfulness, good mood and happiness emanating from work, which assists people in their family roles. Carlson et al. identified affect's impact as an *indirect* pathway to improved functioning, however, consistent with our expectations the current research suggests that affect has a tangible *direct* relationship to engagement at work. Research by Fredrickson and colleagues (e.g., Fredrickson, 2001; Fredrickson et al. 2008; Fredrickson and Joiner 2002) has accentuated the role played by positive emotions in enabling people to broaden their perspectives and widen their

thought/action repertoires. Fredrickson's (2001) explanation for a broadening effect of positive affect (linked to the development of social resources and flexibility) contrasts with the inevitable consequence of negative affect where employees' thought/action repertoires are narrowed and focus is targeted on reactions to potential threats.

Ryan and Deci's (2000, 68) self-determination theory resonates with Fredrickson's perspective and proposes that social contexts (such as work) provide a catalyzing source for "within-and-between person differences in motivation and personal growth". The strong associations in the current study between WF affect and the different dimensions of work engagement in cross-sectional and longitudinal analyses offer support for these theoretical observations. The role played by WF affect contributes directly to an individual's sense of meaning and fulfillment expressed in the current study as dedication. It is also possible that WF affect plays a role as a "catalyzing source" (Ryan and Deci 2000, 68), which in turn is associated with vigor (Schaufeli and Bakker 2003). Finally, in the case of absorption, the current study supports the previous work of Fredrickson and Branigan (2005) who found positive associations between positive mood states and the absorption characteristics of full attentiveness and capacity for creativity.

Theoretical Implications

The current research clearly identified the direct relationships between WF affect and work engagement and between FW affect and family satisfaction. These findings are also consistent with recent observations made by Nicklin and McNall (2013) of a strong relationship between WF affect and family satisfaction. It was suggested by Greenhaus and Powell (2006) that skills and perspectives of the instrumental pathway (captured in the other WF and FW enrichment measures of Carlson et al. 2006) would bestow benefits to the second domain in a bidirectional transfer. The current study found significant but modest associations between the FW enrichment variables of development and efficiency and the

engagement variables. Similar observations are made between the WF enrichment variables of capital and development and family satisfaction, thus we can offer only weak support for the instrumental pathway described by Carlson et al. (2006). This suggests that respondents in the current research experience the boundary between work and family as a discreet phenomenon and not a bidirectional one.

Alternatively, it is also noted that Carlson et al.'s (2006) model of WF and FW enrichment is derived from a conflict background (e.g., Carlson, Kacmar and Williams 2000) and therefore emphasizes specific benefits in alternate domains. Consequently, skills and knowledge (WF and FW development), success at work (WF capital) and urgency (FW efficiency) are more specifically targeted scales than the WF and FW affect scales. For example, "puts me in a good mood" (WF and FW affect) is a broader item compared to the more concrete "helps me acquire skills" (WF and FW development). Thus the narrowing and specificity of the instrumental pathway posited by Carlson et al. (2006) is more akin to Fredrickson's (2001) observations of responses to negative affect. Fredrickson suggested that positive affect is associated with widening the array of thoughts and actions that come to mind, undoing the impact of negative experience (Fredrickson, Tugade, Waugh and Larkin 2003) and the development of psychological resilience. As such, the affective pathway perhaps captures a fuller account of enrichment traversing the boundary between work and home because it enables people to develop broad and enduring repertoires of flexibility and resilience.

In addition, we suggest that recent research which includes work engagement as a resource enabling work-family enrichment (Chen and Powell 2012) or a mediator of flexible work arrangements in predicting work-family enrichment (Siu et al. 2010), may support perceptions that are analogous to those found in early burnout research putting the onus on individuals and obscuring meaningful theoretical understanding of the construct. The

suggestion that work engagement is an attribute of the person and a resource that they bring to the job, rather than a product of the environment in which they work, bypasses some employer responsibilities towards the workplace psychological climate. While it is acknowledged that work engagement is a broader construct than burnout (Timms et al. 2012) and that the opportunity to fulfill personal psychological needs at work also provides some explanation for work engagement (May et al. 2004), its use as a resource predicting work-family enrichment may be misleading. In consideration of the fact that employers and managers are focused on productivity and profitability, it behooves researchers to demonstrate clearly how the intentional creation and maintenance of a positive workplace psycho-social environment can directly contribute to an organization's economic bottom-line.

Practical Implications

Kim and Mauborgne (1998, 333) advocated the creation of fostering work environments as a deliberate and strategic management action, calling it “emotional and intellectual recognition” of employees. This work environment is associated with the ingenuity and creativity that is characteristic of work engagement and with high productivity and market edge. The current study supports Fredrickson's (2001) emphasis on the durability of positive affect in expanding people's cognitive repertoires and the value of increasing their personal resources. Our findings in relation to long-term sustainability of people's sense of meaning in their work (dedication), how energizing work is (vigor) and the ability to be engrossed in work (absorption) support the enduring and pervasive nature of positive affect (Fredrickson 2001) in contributing to productivity gains through the active engagement of employees.

The finding of an enduring effect for WF affect on work engagement across a time interval suggests that happiness at work is an enabler in terms of people's life outside work, and returns benefits to the workplace in terms of sustained work engagement. This is

consistent with Fredrickson et al.'s (2008) finding that increases in positive emotions as a result of pleasant experiences at work enhance people's personal resources and predict life satisfaction. Other research has noted that respondents who score high on vigor report that they find work energizing (Schaufeli and Bakker 2003). It is of no surprise that the beneficial aspects of the work environment that contribute to vigor will also enrich the family lives of respondents. Such employees are less likely to be emotionally exhausted after work and instead will have energy to engage in their family responsibilities and non-work interests. These conclusions are consistent with the broaden-and-build theory (Fredrickson 2001), whereby positive affect is instrumental in building enduring personal resources that enhance experience in all facets of life (see also Brough et al. 2007).

Research Limitations

An important limitation of this research lies in the nature of self-report data, which does not necessarily provide an objective measure of constructs. However, previous studies have suggested an important role for positive affect in the development of enhanced experience in all facets of life (Fredrickson 2001). Despite the fact that Carlson et al.'s (2006) enrichment variables include both work and family in each item, the current study found only cross-sectional evidence that FW affect contributed to work engagement (absorption) and that WF affect contributed to family satisfaction. This could indicate that the criterion variables included in this investigation were not sufficiently sensitive to capture all benefits that emanate from people's experiences of enrichment, regardless of origin. Alternately, it could indicate that the WF and FW enrichment variables representing the instrumental pathway are perhaps too narrow to achieve understanding of a positive subject like enrichment. A possible auxiliary limitation is that the current study experienced significant respondent attrition over the twelve month time-frame which characteristically plagues longitudinal research designs (Ployhart and Vandenberg 2010).

Conclusion

While the current research provides strong support for Carlson et al.'s (2006) affective pathway of WF enrichment in relation to employees engagement with work, enrichment flowing from FW was not clearly evident. In addition there was only limited support for Carlson et al.'s instrumental pathway hypothesis. Fredrickson and colleagues (e.g., Fredrickson 2001; Fredrickson et al. 2008; Fredrickson and Joiner 2002) suggested that positive affect initiates a broader and more flexible spectrum of responses than does negative affect. Therefore, it is suggested that the Carlson et al. enrichment measures representing the instrumental pathway may not be as relevant to people's experience of the interface between work and family. The current research has, therefore, advanced the important distinction between the impact of positive and negative pathways of work-family enrichment and work engagement.

The current research makes an important contribution to work and family research by advancing our understanding of the role played by affect within and beyond the workplace. Consistent with broaden-and-build theory (Fredrickson 2001), we found a robust effect for WF affect in relation to all aspects of work engagement. Therefore, our findings provide a salient message for employers, i.e., the happiness of their workforce does indeed have direct implications for an organization's economic 'bottom line'. Finally, we observed that family experiences have minimal impact upon levels of work engagement. This final finding continues to present an elusive and intriguing challenge to researchers.

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Table 1. Means and Standard Deviations of the Research Variables (N = 470)

	Time 1		Time 2	
	Mean	SD	Mean	SD
Work-family Development	3.77	.75	3.74	.79
Work- family Affect	3.05	.89	3.05	.92
Work- family Capital	3.77	.85	3.71	.89
Family- work Development	3.84	.70	3.82	.71
Family- work Affect	3.97	.73	3.91	.79
Family- work Efficiency	3.72	.84	3.74	.82
Family Satisfaction	5.87	1.44	5.78	1.47
Absorption	3.03	.92	4.03	.91
Dedication	3.44	.95	4.27	.99
Vigor	2.73	.95	3.62	.99

Table 2. Correlations and Reliabilities of the Research Variables (N = 470)

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
1. WF affect T1	.94																			
2. WF affect T2	.58***	.95																		
3. WF capital T1	.70***	.46***	.93																	
4. WF capital T2	.47***	.71***	.56***	.94																
5. WF dev T1	.47***	.32***	.53***	.37***	.90															
6. WF dev T2	.39***	.53***	.46***	.63***	.50***	.92														
7. FW affect T1	.23***	.09	.27***	.15***	.31***	.15***	.95													
8. FW affect T2	.23***	.25***	.25***	.29***	.14***	.28***	.47***	.96												
9. FW dev T1	.23***	.12*	.33***	.19***	.45***	.26***	.55***	.23***	.89											
10. FW dev T2	.29***	.29***	.34***	.39***	.34***	.53***	.35***	.54***	.42***	.89										
11. FW eff T1	.30***	.20***	.33***	.27***	.33***	.26***	.37***	.24***	.44***	.32***	.92									
12. FW eff T2	.24***	.27***	.25***	.38***	.19***	.38***	.23***	.52***	.27***	.55***	.47***	.93								
13. Fam Sat T1	.15***	.14***	.10*	.11*	.18***	.11*	.46***	.42***	.24***	.24***	.15***	.16***	.96							
14. Fam Sat T1	.19***	.19***	.15***	.15***	.14***	.12***	.42***	.50***	.19***	.27***	.17***	.27***	.65***	.96						

15. Absorption T1	.36***	.29***	.35***	.32***	.22***	.22***	.01	.10*	.16**	.15**	.17***	.10*	-.04	.06	.79
16. Absorption T2	.36***	.38***	.35***	.47***	.25***	.35***	.09	.16***	.14***	.27***	.20***	.24***	-.03	.06	.56*** .74
17. Dedication T1	.50***	.41***	.55***	.47***	.34***	.35***	.14***	.16***	.21***	.23***	.25***	.17***	.04	.10*	.68*** .52*** .85
18. Dedication T2	.45***	.51***	.46***	.59***	.34***	.44***	.15***	.20***	.18***	.33***	.25***	.30***	.08	.11*	.44*** .74*** .61*** .86
19. Vigor T1	.54***	.46***	.50***	.44***	.28***	.30***	.13***	.15***	.17***	.17***	.22***	.21***	.04	.11*	.61*** .49*** .76*** .54*** .83
20. Vigor T2	.50***	.55***	.43***	.56***	.32***	.41***	.20***	.27***	.19***	.30***	.21***	.31***	.15***	.18***	.42*** .62*** .54*** .73*** .66*** .85

Note 1. * = $p < .05$, ** = $p < .01$, *** = $p < .001$

Note 2. Cronbach's alphas are found in *italics* on the diagonal

Note 2. WF = Work-family, FW = Family-work, dev = development, eff = efficiency, Fam sat = family satisfaction, T1 = Time one, T2 = Time two

Table 3. Summary of Hierarchical Regression Analyses for the Prediction of Cross-Sectional Work Engagement Time 1 ($N = 470$)

		Vigor		Dedication		Absorption		Family Satisfaction	
		ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β
Control		.02*		.04*		.06**		.04*	
tep 1	variables								
	Gender		.04		.15**		.19***		.11*
	Age		.06		.04		.07		-.11*
	Work status		.01		.02		-.08		-.03
	Industry group		.13**		.13**		.14**		-.11*
		.34***		.32***		.16***		.19***	
tep 2	WF		-.03		.04		.00		.07
	development								
	WF affect		.35***		.17**		.21**		.13*
	WF capital		.27***		.39***		.19**		-.15*
	FW		.03		.04		.12*		-.02
	development								
	FW affect		-.03		-.04		-.15**		.45***
	FW efficiency		.08		.07		.05		-.05
Total R^2		.36***		.36***		.22***		.23***	

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 4. Summary of Hierarchical Regression Analyses for the Prediction of Longitudinal Work Engagement ($N = 470$)

	Vigor		Dedication		Absorption		Family Satisfaction	
	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1 Control variables	.02		.03*		.03*		.04**	
Gender		.09		.17**		.09***		.13**
age		.06		.02		.07		-.09*
Work status		.05		-.05		-.12*		.02
Industry group		-.05		-.05		-.01		-.13**
Step 2	.44***		.36***		.29***		.38***	
T1 equivalent variable		.68***		.62***		.55***		.63***
Step 3	.03***		.04***		.04***		.03***	
WF development		.06		.07		.05		-.06
WF affect		.18**		.16**		.12*		.08
WF capital		-.04		.01		.05		.03

FW	-0.01	-0.03	-0.05	-0.07
development				
FW affect	.07	-0.02	.01	.16**
FW efficiency	.02	.05	.06	.02
<hr/>				
Total R ²	.49***	.43***	.36***	.45***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.