

Self-employment as a moderator of the relationship between work and life satisfaction

Abstract:

Bottom-up theories of life satisfaction suggest that work satisfaction and overall life satisfaction are positively related to each other because work is a central life domain for most adults. Empirical research has shown that the correlation between work and life satisfaction varies substantially across studies, suggesting that the strength of the relationship may depend on the studied population and its circumstances. In this article, we assess the strength of the relationship in the context of Chile and the moderator effect of self-employment – whether a worker is self-employed or salaried. Based on the idea that work is more central in the life of a self-employed than a salaried worker, we hypothesized that the strength of the relationship between work and life satisfaction will be stronger for the former. The results from a national sample of 658 Chilean workers supported our hypothesis. We also found a small negative direct effect from self-employment on life satisfaction, which suggests that the self-employed might be, on average, less satisfied with their lives than their salaried counterparts.

Keywords: life satisfaction, work satisfaction, job satisfaction, self-employment.

1 Introduction

Work takes a larger share of time than any other activity except sleeping. Many people not only earn their sustenance from work but also obtain pleasure from it (e.g., Csikszentmihalyi 1975, 1997; Dane 2011). Some people even enjoy work activities more than leisure or home life (e.g., Juster 1985). Very often, work provides structure for the day, positive social relationships, a means of achieving respect, a source of challenge, and a sense of identity and meaning. Clearly, work is a central aspect of life in terms of the sheer amount of time and energy devoted to it by most adults. Accordingly, it is not rare for work satisfaction to be an essential dimension of life satisfaction. However, *how much* these two constructs are related still remains unclear, given the large variation in the strength of the relationship across studies. In this article, we suggest that this large variation in correlations across studies might not be a product of statistical artifacts and that the relationship could be moderated by a third variables (Hunter and Schmidt 2004), for example, representing different groups of workers and distinct contexts. Particularly, we investigate the moderation effect of self-employment – whether a worker is self-employed or salaried.

This study was inspired by the work of Thompson, Kopelman et al. (1992), who investigated the moderation effects of self-employment. Based on Locke's (1976) claim that the more an individual has at stake in one domain, the more leveraged that person's feelings should be regarding that domain, Thompson et al. argued that self-employed workers are physically, emotionally, and financially more invested in their jobs than salaried workers. When testing their hypothesis, these authors found that the relationship between work satisfaction and life satisfaction (hereafter WS-LS) was significantly stronger for self-employed than for salaried workers. Yet, their sample consisted of only 115 organizationally employed and 62 self-employed individuals, all of whom were men. The present study re-examines the moderation effects of self-employment on the strength of the WS-LS relationship, using a sample of 658 Chilean workers, a quarter of whom were self-employed, with the rest salaried. The sample used in the current study was not only substantially larger in size but also more representative of the current workforce because it included both genders. Consequently, the results will be more robust and generalizable.

2 Conceptual Background

The WS-LS relationship has a substantial research tradition in industrial and occupational psychology (see Erdogan et al. 2012; Rain et al. 1991 for reviews). Bottom-up theories of life satisfaction understand life satisfaction as a function of satisfaction in multiple life domains such as health, family, and work (Hart 1999;

Rojas 2006; Heidemeier and Göritz 2013; Loewe et al. 2014). Within each life domain, a person's level of satisfaction results from discrepancies between current conditions and multiple standards, including other people, past conditions, aspirations, and goals (Michalos 1985). A discrepancy that involves an upward comparison (i.e., where the comparison standard is higher) results in decreased satisfaction, whereas a downward comparison results in increased satisfaction. In the case of the work domain, there is evidence that work satisfaction mediates the effects of work experiences – like work-nonwork conflict (Rice et al. 1992) and role stressors (Carlson and Kacmar 2000) – on life satisfaction.

Some authors have suggested that a person's dispositions may influence both, work and life satisfaction, establishing a spurious relationship between the two that inflates the correlation (Judge et al. 1997; Dormann and Zapf 2001). For example, Judge et al. (1997) claimed that dispositions – such as self-esteem, locus of control, and neuroticism – affect the perception of objective conditions and the norms used to appraise them, which in turn influence work and life satisfaction judgments. Although some studies have provided empirical support for this dispositional perspective (e.g., Heller et al. 2002; Judge et al. 1998; Rode 2004), Heller et al. (2004) meta-analytic study concluded that, rather than confounding the WS-LS relationship, the effects of personality on life satisfaction were mediated by work satisfaction. Erdogan et al. (2012, p.1041) stated in their recent review of the literature, *'treating personality as a distal predictor in models of life satisfaction may be more consistent with theory as opposed to treating it as a control variable that needs to be partialled out.'*

Meta-analyses corroborate that work satisfaction is positively, but modestly, correlated with overall life satisfaction (Bowling et al. 2010; Rice et al. 1980; Tait et al. 1989). For example, Bowling et al.'s (2010) meta-analysis estimated an average weighted correlation of .40 between life satisfaction and global work satisfaction, which was reduced to .36 when a composite of work satisfaction was considered. Similarly, Rice et al.'s (1980) results showed a correlation of .31, while Tait et al. (1989) found a correlation of .44 after correcting for attenuation. Underlying these average correlations, the coefficients reported in specific articles contained in these meta-analyses show that the strength of the WS-LS relationship varies considerably across studies. Correlations range from a low value of .16 (e.g., Susskind et al. 2000) to values close to .7 (e.g., Cunningham and De La Rosa 2008; Van de Vliert and Janssen 2002).

Building on Schwartz's (1992) theory of values, Oishi et al.'s (1999) value-as-moderator model predicts that the strength of the relationship between life domain satisfactions – such as satisfaction with health, friendship, or work – and overall life satisfaction depends on the individual's value orientation. In particular,

the higher value a person gives a particular life domain, the stronger will be the association between that domain satisfaction and overall life satisfaction. Similarly, the disaggregation hypothesis (Rice et al. 1980; Steiner and Truxillo 1989) proposes that job involvement – the perceived value of work in one’s life and self-concept – moderates the WS-LS relationship. According to this hypothesis, the relationship should be stronger for individuals who value work more in their lives. Other similar variables that have been proposed as moderators of the WS-LS relationship are, for instance, occupation type, occupational prestige, and job importance (Bamundo and Kopelman 1980; Rice et al. 1985; Wiener et al. 1992).

2.1 Self-employment

Economists have long studied the self-employed and compared them to salaried workers. One of the reasons for the interest in the self-employed is that this sub-population of workers consistently shows higher work satisfaction scores than salaried workers, irrespective of income gained or hours worked (e.g., Benz and Frey 2008; Blanchflower 2004; Bradley and Roberts 2004; Fuchs-Schündeln 2009; Millán et al. 2013). It is usually argued that self-employment provides ‘procedural utility’ on top of the ‘outcome utility’ derived from income and leisure. That is, workers not only value the outcomes (i.e., income and leisure) but also the conditions and processes leading to them (Benz 2007; Frey et al. 2004). Although the average income of the self-employed is often well below that of comparable employed individuals (Hamilton 2000; Moskowitz and Vissing-Jørgensen 2002) and the self-employed enjoy less free time (Hyytinen and Ruuskanen 2007), self-employed workers derive procedural utility because self-employment gives them higher freedom in the form of autonomy and self-determination. Self-employment not only provides more freedom but also other nonpecuniary benefits that make the self-employed, on average, more satisfied with their work than their salaried counterparts.

Self-employment jobs usually have more enriching requirements and provide more flexibility and opportunities to utilize one’s own skills. The self-employed also have more control over the effort expended on their jobs (Hundley 2001). However, the advantages of self-employment do not come without sacrifice. In comparison with salaried employment, any benefits that may accrue to the self-employed are gained at the cost of increased risk because their pay-offs are largely determined by their efforts and skill. The self-employed perceive their jobs as being more stressful and mentally draining because they work longer hours and have more responsibility for their jobs, incomes, and, in many cases, employees (Kaufmann 1999). These characteristics of self-employment may make work more central in the life of the self-employed; in many instances, work and its demands even dominate the lives of the self-employed (Hamermesh 1990). We

hypothesize that this increased centrality of work may strengthen the WS-LS relationship. Based on these explanations and the above research findings, we hypothesized the following:

H1: *The relationship between work satisfaction and life satisfaction will be positive*

H2: *The relationship between work satisfaction and life satisfaction will be moderated by self-employment. In particular, the relationship will be stronger for self-employed than for salaried workers.*

3 Method

3.1 Sample and procedure

The measures used in this study were part of a large questionnaire administered to investigate several characteristics of the Chilean population. Using the Chilean census, 1500 people were sampled to represent the total population of Chile with a 5% sampling error. Although all regions were represented in the sample, the Greater Santiago region was overweighted. Approximately 30% of the cities, towns, and districts were selected proportionally, while blocks, housing, and individuals were randomly selected. A team of professional canvassers went door-to-door to personally administer the survey questionnaire to the sampled participants. This procedure yielded an interim sample of 791 workers, which was reduced to an effective size of 658 individuals after a listwise process deleted cases with missing values. Missing values were distributed at random across cases without following any pattern (Olinsky et al. 2003). The age of the participants ranged from 18 to 74 years, and the average age was 39 years (S.D.=12.5); 64.1% were men and 35.9% were women; some 74.9% of the participants were salaried workers, while 25.1% were self-employed workers. Table 1 provides sample proportions on education level, marital status, and age groups.

Insert Table 1 about here

3.2 Instruments

The Satisfaction With Life Scale was used to assess life satisfaction (SWLS; Diener et al. 1985). This scale has shown good psychometric properties (for reviews, see Pavot and Diener 2008; Vassar 2008) and has been extensively applied and validated in many cultures and with different socio-demographic groups (Durak et al. 2010; Gadermann et al. 2011; Oishi 2006). The participants indicated their responses in a 5-point Likert scale labeled from 1 'completely disagree' to 5 'completely agree'. We estimated internal consistency reliability

using Cronbach's alpha, which showed a value of .77, above the usually accepted cut-off value of .70 for non-basic research (Nunnally 1978). However, several authors have reported significantly lower loading for the last two items of SWLS (Pavot and Diener 2008). These loading differences represent a violation of the assumptions required by the tau-equivalent measurement model (Raykov 1997a) – on which coefficient alpha is based. This violation may lead to either an underestimation or an overestimation of reliability (Raykov 2001). In our study, exploratory factor analysis also revealed that the loadings of items 1, 2, and 3 were similar in magnitude, approximately .70 in value, but the loadings of items 4 and 5 were significantly lower, at .59 and .50 respectively. Exercising caution, we re-estimated reliability using Heise and Bohrnstedt's (1970) omega – an alternative estimate of reliability based on more relaxed assumptions (Raykov 1997b). The new reliability value did not differ much from Cronbach's alpha, estimating a new value of .78. Confirmatory factor analysis (CFA) showed good fit indices ($\chi^2=15.7$; $df=5$; $\chi^2/df=3.14$; $RMSEA=.05$; $SRMR=.02$; $CFI=.98$; $NFI=.98$).

Work satisfaction was assessed using a 22-item subscale of the Occupational Stress Indicator (OSI) (Cooper et al. 1988). This scale evaluates satisfaction with work facets such as career development opportunities, job stability, and the supervisor's leadership style. Responses were given in a 6-point Likert type scale labeled from 1 '*completely satisfied*' to 6 '*completely unsatisfied*'; the scores were subsequently recoded so that the higher scores indicated higher degree of work satisfaction. CFA showed acceptable fit indices ($\chi^2=972$; $df=209$; $\chi^2/df=4.65$; $RMSEA=.07$; $SRMR=.05$; $CFI=.96$; $NFI=.95$). Cronbach's alpha was .95 for this measure.

To determine whether the participants were self-employed or salaried – the variable referred to here as self-employment – participants checked '*salaried*' or '*self-employed*' among multiple options such as retired, unemployed, student, etc. Self-employment was coded with 1 and salaried with 0.

4 Results

The means, standard deviations, maximum and minimum values, and correlations of the variables are presented in Table 2. The correlation between work satisfaction and life satisfaction ($r = .30$) was of the same magnitude found in previous research (Bowling et al. 2010). This result supported H1. An independent sample t-test analysis revealed that there were no significant differences in the life satisfaction of self-employed and salaried workers ($t = .71$, $df = 656$, $p = .48$). For the sake of external validity, we also conducted a t-test comparing the work satisfaction of self-employed and salaried workers. In our sample, the former showed significantly higher scores ($t = -4.5$, $df = 656$, $p < .001$), a result that was consistent with the results of previous research (e.g., Benz

and Frey 2008; Blanchflower 2004; Bradley and Roberts 2004; Millán et al. 2013; Fuchs-Schündeln 2009).

Insert Table 2 about here

We used multiple regression analysis to test the moderator effect of self-employment (SE) on the strength of the relationship between work satisfaction and life satisfaction. Life satisfaction was regressed on work satisfaction, self-employment (the moderator dummy variable), and an interaction term – the cross-product of work satisfaction and self-employment. When regressors are entered in a sequential order, a moderator effect is indicated by an increase in R^2 – beyond the R^2 of the main effects – from the addition of the interaction term. Therefore, we firstly tested the additive model, including the direct effects, and afterward the multiplicative model including also the interaction effect. The results of both model tests are shown in Table 3.

In the case of the additive model, a significant overall F (36.01; $p < .05$) was obtained and R^2 was 9.6%. A significant standardized coefficient for work satisfaction of .32 confirmed a positive main effect from work satisfaction on life satisfaction. The results of this regression analysis also showed a negative effect – of value near zero – of self-employment on life satisfaction (-.08), indicating that – on average – the self-employed were slightly more satisfied with their lives than salaried workers. Although this difference in average life satisfaction between self-employed and salaried workers may appear to be inconsistent with the results of the t-test conducted previously, we must take into account that the t-test is equivalent to a simple regression model. In our case, the t-test residual variance included all the variation that was not explained by the variation of SE, while in the additive regression model, the variability accounting for WS was subtracted from that residual variance. In other words, the partial correlation coefficient of SE was greater when WS was included in the regression equation, and the standard error for significance testing was smaller. As a consequence, the power to detect a significant effect of SE is greater in the regression relative to the t-test.

Subsequently, the multiplicative model was tested. With the inclusion of the interaction term (WS x SE) in the regression analysis, the standardized coefficients of work satisfaction (.26), self-employment (-.78) and the interaction term (.72) were all statistically significant. Multicollinearity inflated the standard errors of self-employment and the interaction term coefficients to a level that no longer allowed for the interpretation of the estimation of the coefficients. In particular, VIF reached 1.3 for work satisfaction, 42.4 for self-employment, and 43.8 for the interaction term. R^2 – which is not affected by multicollinearity – increased from 9.6% in the additive model to 10.7% ($t = 2.96$, $df = 657$, $p < .05$) in the multiplicative model. Despite this small

increment in R^2 , the statistical significance of the interaction term indicated that a moderator effect existed. To facilitate the interpretation of this moderation effect, Fig. 1 represents the linear equations derived for both studied groups, self-employed and salaried. The higher slope of the self-employed line indicates that the relationship between work satisfaction and life satisfaction was stronger for this group of workers. For low and medium levels of work satisfaction, the average life satisfaction of the self-employed was smaller than that of salaried workers. The stronger effect of work satisfaction on life satisfaction for the self-employed made the latter more satisfied with their lives at high levels of work satisfaction. These results supported H2 that self-employment moderates the relationship between work satisfaction and life satisfaction with the result that the relationship was stronger for self-employed than for salaried workers.

Insert Table 3 about here

Insert Fig. 1 about here

In this study we assumed that the use of self-report measures were especially appropriate for assessing work satisfaction and life satisfaction, given the self-reflective nature of these two constructs. Although there is some evidence that common-method variance may generally not be as serious a problem as many researchers have assumed (Batista et al. forthcoming; Spector 2006), and it is minimized in large multipurpose surveys like this survey (Chang et al. 2010), it is possible that our findings were influenced by common-method variance. Confirmatory factor analysis was conducted to test common method variance. the proposed Harman's single-factor model was estimated (Podsakoff and Organ 1986; Podsakoff et al. 2003).. The model produced the following fit statistics: $\chi^2=1945$; $df=$; $\chi^2/df=6$; RMSEA=.09; SRMR=.08; CFI=.94; NFI=.93, that indicated a poor of the measurement model fit (MacKenzie et al. 2011). Therefore, any possible method effects in the data were likely to be minimal.

5 Discussion

As predicted, work satisfaction was positively related to life satisfaction in this study. The correlation between both constructs was within the range shown in previous meta-analytic studies. According to our hypothesis, we found that the association was stronger for self-employed than for salaried workers, a result that

was consistent with the work of Thompson et al. (1992). We attributed the moderation effects of self-employment to the higher centrality of the work domain in self-employed people's lives.

Our method also revealed an unexpected direct effect from self-employment on life satisfaction. In particular, the self-employed were less satisfied with their lives than salaried workers, on average. Although this effect was statistically significant, its size was close to zero. This unexpected finding is especially interesting because it contrasts with the results of some recent research that investigated the relationship between self-employment and life satisfaction. Andersson (2008) found a strong positive correlation between self-employment and life satisfaction. Blanchflower (2004) found that only some subgroups of self-employed workers were more satisfied than salaried workers. For example, Alesina et al.'s (2004) findings suggested that the positive effect of self-employment was limited to wealthy countries. Binder and Coad (2013) found that individuals who moved from regular employment into self-employment – ‘opportunity’ entrepreneurs – experienced an increase in life satisfaction. However, individuals moving from unemployment to self-employment – ‘necessity’ entrepreneurs – were not more satisfied than their counterparts moving from unemployment to regular employment. In sum, the small negative effect of self-employment on life satisfaction in this study could be explained by the national scope of our study. In our sample, the poorer rural areas of Chile were also represented. In these areas, self-employment might be driven by necessity, rather than opportunity.

Industrial and occupational psychology research has consistently shown that work satisfaction only explains a small part of life satisfaction variance. In fact, when satisfaction with other non-work facets of life, personality dimensions, and living conditions are controlled, the percent of variance in life satisfaction uniquely attributed to work satisfaction often falls to 5% or lower (Andrews and Withey 1976; Hart 1999; Near et al. 1984). Therefore, the moderation effect of self-employment on the WS-LS relationship shown in this study may be of higher relevance than is indicated by the small increase in R^2 , when the interaction term was incorporated. Identifying the moderators of the WS-LS relationship is important because the regression coefficient in a main effects model estimates the effect of WS on LS across multiple levels of the moderator. This average main effect can misdirect our conclusions regarding the relationship between both constructs, as is the case when suppressor effects exist. In contrast, in a model including a multiplicative term, the regression effects reflect the conditional relationships of WS at each level of LS, and the interaction reveals slope differences as one moves from one value of LS to another. Accordingly, we call for the examination of other potential moderators of the WS-LS relationship, which may enhance our understanding of the different

situations and populations to which the distinct theoretical models could apply. For example, further research may want to examine the level of education as a moderator of the WS-LS relationship. Empirical evidence suggests that higher educational attainments reduce work satisfaction (Clark 1997; Ferrer-i-Carbonell 2005), while the effect of education on life satisfaction is vague (Ferrante 2009). This pattern of relationships between education, WS, and LS is similar to that observed between self-employment, WS and LS. Indeed, it could be argued that work may be more central in life for people who are more invested in education. If that is the case, education could be a relevant moderator of the WS-LS relationship. This relationship is speculation that future research may want to investigate.

Two limitations of this study are worth noting. Firstly, some authors have suggested that the relationship between work satisfaction and life satisfaction could be spurious. For example, using structural equation modeling, Rode (2004) found that work satisfaction did not explain any of the variance of life satisfaction; instead, both constructs were related to a single measure of self core evaluations – basic conclusions that people hold regarding themselves and their capabilities. Personality traits such as self-esteem, locus of control, generalized self-efficacy, and neuroticism are all dispositional indicators of core self-evaluations. Some of these traits might be also associated to self-employment career choice. For example, meta-analysis studies provided some evidence of a positive relationship between entrepreneurial behavior and personality traits such as need for achievement, generalized self-efficacy, need for autonomy, and proactive personality (Zhao and Seibert 2006). Rauch and Frese (2007) meta-analysis found entrepreneurs scored higher on Conscientiousness and Openness to Experience and lower on Neuroticism and Agreeableness. No difference was found for Extraversion. However, being self-employed do not necessarily mean being an entrepreneur, indeed, self-employed are a quite heterogeneous population in many aspects (Santarelli and Vivarelli 2007; Van den Heuvel and Wooden 1997), for instance, in their motivations to pursue self-employment (Feldman and Bolino 2000; Fuchs-Schündeln 2009). Secondly, the cross-sectional nature did not allow to investigate the causal direction of the WS-LS relationship. Implicit in the bottom-up approach adopted in this study is the direction of the relationship from work satisfaction to life satisfaction. Although most of the studies assume the same direction of causality (Erdogan et al. 2012), some authors adopting a top-down, or dispositional, approach have suggested that the relationship could be the other way around. This approach suggests that the influence of life satisfaction on work satisfaction represents a dispositional effect (Judge and Hulin 1993; Staw and Ross 1985), that is, the positive affect associated with higher life satisfaction leads people who are more satisfied with their lives to interpret work conditions and events more positively, resulting in turn in higher work

satisfaction. Some studies have even suggested that the WS-LS relationship might be reciprocal (e.g., Judge et al. 1994; Judge and Watanabe 1993; Judge and Hulin 1993).

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Table 1 Sample characteristics (N=658)

Age		Marital Status		Education	
Less than 25	12.8%	Married	38.8%	No education	2.4%
From 25 to 34	26.9%	Single	38.4%	Primary	18.9%
From 35 to 44	26.0%	Living together	10.9%	Secondary	54.0%
From 45 to 54	21.9%	Separated	8.9%	University	24.7%
From 55 to 65	10.9%	Divorced	2.2%		
More than 65	1.5%	Widow/er	.8%		

Table 2 Means, standard deviations, and correlations among variables (N=658)

Variable	Mean	Min.	Max.	S.D.	1	2	3	4
1 Life satisfaction	3.35	1,60	5.00	.67	1			
2 Work satisfaction	4.33	1.55	6.00	.73	.30	1		
3 Self-employment	.25	0	1	.43	-.02	.17	1	
4 WS x Self-employment	1.14	0	6.00	2.00	.01	.25	.98	1

Table 3 Results of regression analyses predicting LS^a (N=658)

Variable	Additive				Multiplicative			
	Beta	SE	t	VIF	Beta	SE	t	VIF
Work satisfaction (WS)	.32*	.03	8.45	1.03	.26*	.04	6.10	1.32
Self-employment	-.08*	.06	-2.19	1.03	-.78*	.37	-3.27	42.42
WS x Self-employment					.72*	.08	2.96	43.89
Total R ²	.096				.107			
ΔR ²					.011			
F	36.01*				27.23*			
ΔF					-3.56			

^a Standardized regression coefficients are shown.

* Statistically significant at $p < .05$

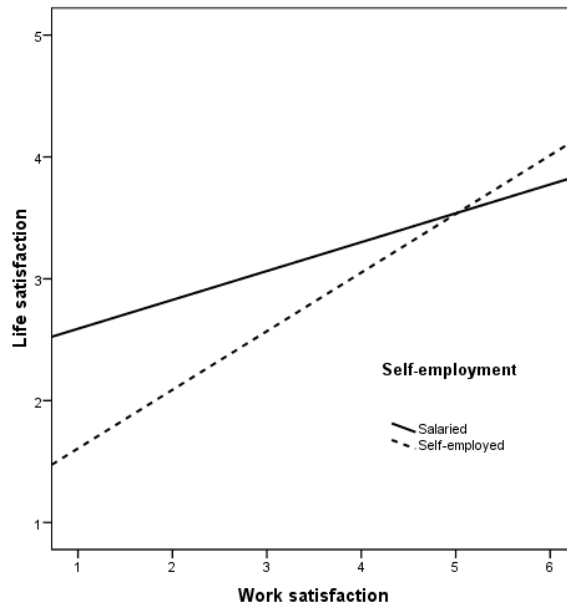


Fig. 1 Moderator effect of self-employment