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Heavy-work investment, job engagement, managerial role, person-organization value congruence, and burnout: A moderated-mediation analysis in USA and Israel

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Abstract
The present research investigates the mediational mechanism of Heavy-Work Investment (HWI) between job engagement, managerial roles and work burnout. The paper proposes an expansion to the HWI model (as divided into two dimensions: the investment of time and efforts) by exploring the role of value congruence (between the employees and their workplaces) as a moderator, with a two-study cultural differences perspective. Data from 186 American employees (Study 1) and 221 Israeli employees (Study 2) were collected. Moderated-mediation analyses were employed using PROCESS macro for the SPSS. Among others, we found that job engagement positively associates with HWI, but negatively with burnout. Managerial position was not related to any of the variables in either sample. However, the two HWI dimensions display different relationships with burnout; while the investment of efforts at work shows negative links to burnout, the investment of time does not show any consistent correlations with it. Moreover, support for moderated-mediation model was only found in the Israeli sample.. Implications and future research suggestions are discussed.

Keywords Heavy-work investment · Job engagement · Burnout · Managerial position · Cultural differences · Moderated-mediation

Introduction

In the last few decades there have been solid testimonies to the centrality of work in people's lives (Arvey et al. 2004), much beyond being only an income source (Highhouse et al. 2010). Evidently, most of us would continue working regardless of economic status (NRC 1999). Most of our waking hours are devoted to work, above other activities we may engage in during our day (Landy and Conte 2016). Recently, greater accessibility to technology and industrial competition led to a considerable increase in the time invested in the work (Lee et al. 2007). In addition to environmental factors, time and effort invested in work are also conditioned by individual differences (Shkoler et al. 2017a; Snir and Harpaz 2015).

Current Study and Contributions

The present research capitalizes upon Snir and Harpaz's (2015) conceptual model regarding predictors, outcomes and possible moderators of heavy-work investment (both time and effort dimensions). The application for the model in our study is the mediation of heavy-work investment in the relationship between job engagement and management role to burnout as moderated by person-organization value congruence. The heavy-work investment model (Snir and Harpaz 2012, 2015) is relatively new, with only recent signs of academic attention to it emerge as of late (e.g., Rabenu and Aharoni-Goldenberg 2017; Shkoler et al. 2017a, b; Tziner et al. 2019). Moreover, only recently did the model receive an empirical testing (e.g., Harpaz and Snir 2016; Tziner et al. 2019). Hence, further testing of the model is warranted. See Fig. 1 for the overall research model.

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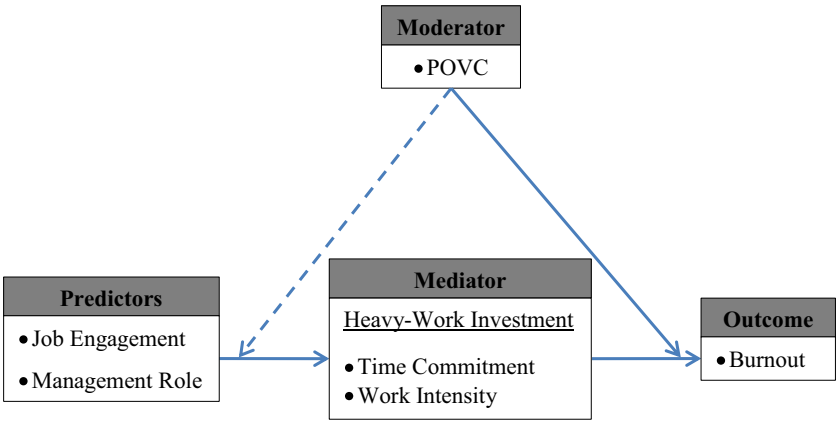

Fig. 1 Overall research model. *Notes*: Management Role (1 = non-managers, 2 = managers). POVC = person-organization value congruence. Solid lines are representative of the original HWI model (Snir and Harpaz 2015, p. 6). Dashed line is an addition to the original mnodel done in this research (as is explained in the "proposal for expanding Snir and Harpaz's (2015, p. 6) HWI model" section)

Furthermore, research focusing on cultural differences investigations of burnout is very scarce (about 2% of the studies, See: Pines 2011, p. 49. e.g., Baba et al. 1999; Schaufeli and Van Dierendonck 1995). Hence, we wanted to explore the culturally different dimensions of burnout, and attempt to reach a more universal generalization of the model.

Heavy-Work Investment (HWI)

Snir and Harpaz (2012) introduced the important concept of heavy work investment (HWI), which encompasses two major core dimensions, namely: (1) Time Commitment (HWI-TC; i.e., working long hours), and (2) Work Intensity (HWI-WI; i.e., investing substantial effort, both physical and mental, at work. In addition, Work effort refers to "the intensity of mental and/or physical exertion during working time, thus distinguishing the concept from working time itself" [Green 2008, p. 116]) (See also: Snir and Harpaz 2015). HWI is an umbrella term comprised of many different constructs (e.g., workaholism and work addiction, passion to work), but ultimately revolves around the devotion of time (HWI-TC) and efforts (HWI-WI) at work (see: Snir and Harpaz 2015, p. 6).

While there are many studies that treat the implications of working overtime (e.g., Caruso 2014; Stimpfel et al. 2012), to the best of our knowledge, there have been relatively few empirical studies regarding the investment of efforts at work as an indicator of Heavy Work Investment (e.g., Tziner et al. 2019). Hence, in the present research we address both of the core dimensions of HWI, namely, *time* (HWI-TC) and *effort* (HWI-WI).

With respect to the possible antecedents of heavy work investment such as gender, parenthood, educational level, basic financial needs, employer demands, work addiction, work devotion, passion to work and more, Snir and Harpaz (2012, 2015) further differentiated between *situational* and *dispositional* types of HWI (based on Weiner's 1985 attributional framework). Situational types are exemplified by financial-needs, employer-directed contingencies, organizational culture, and industry type (i.e., external predictors), while dispositional types are characterized by individual differences (i.e., internal predictors), such as work-motivation, obsessive-compulsive personality, lower preference for leisure, and work ethics. Consequently, HWI may also affect various outcomes, such as health, work-family conflict, satisfaction at work, and productivity, so that under certain circumstances, HWI can thus be considered as a mediator variable. In addition, the model of HWI (see: Snir and Harpaz 2015, p. 6) also depicts some possible moderators (e.g., job type, fairness, job satisfaction).

Accordingly, in the current study, we investigate the association between two predictors of HWI; an external predictor – managerial role, and an internal one – job engagement. The outcome variable is Burnout, and we, thus, gauge HWI's role as a mediator between said predictors and Burnout. Furthermore, we included a possible moderator in the model – Person-Organization Value Congruence – as can be seen in Fig. 1.

Outcome – Burnout

Work burnout is usually described as a psychological overtime stress syndrome (see Hobfoll 1989; Maslach 2003) of: (1) emotional exhaustion; (2) experienced distance from others (depersonalization); and (3) feelings of reduced personal accomplishment/efficacy (Jackson and Maslach 1982). Burnout is positively associated with a variety of negative outcomes, from employee health, such as: cardiovascular diseases (Toker et al. 2012), hyperlipidaemia (Shirom et al. 2013), and risk of diabetes (Melamed et al. 2006), and even depression (Toker and Biron 2012). Moreover, Burnout may have detrimental effects on attitudes toward the organization, employee performance (Tourigny et al. 2013) and even work misbehaviors (Lebrón et al. 2018) (see also: Anthony-McMann et al. 2017; Maslach 2011; Nahrgang et al. 2011).

Moreover, burnout may also be affected by job demands (e.g., physical demands, risks and hazards) and/or job

resources (e.g., knowledge, autonomy, supportive environment) (e.g., Nahrgang et al. 2011), and work stressors (e.g., Nahrgang et al. 2011; Shkoler and Tziner 2017; Tziner et al. 2015). For further reading on this topic, please see Schaufeli et al.'s (2017) extensive work.

HWI-TC and Burnout

Long working hours may account for a plethora of negative consequences (e.g., health issues and injuries in work, reduced productivity, work burnout, etc. see: Caruso 2014; Tziner et al. 2019). The literature suggests this is due to the exhaustion of employees' resources (see: Hobfoll 1989, 2001) which commonly coincides with shortened time for recovery from work stress (Van Der Hulst and Geurts 2001). On the contrary, research has found that employees who work long hours (more than 50) may enjoy higher life satisfaction (Shamai et al. 2012) and could be expected to report higher positive affect than those who worked less (36–50 h) (Shamai 2015). The association between working overtime and burnout is inconsistent (e.g., Rabenu and Aharoni-Goldenberg 2017). This is also demonstrated by the fact the relationships between them are sometimes reported to be non-significant (e.g., Richter et al. 2014; Schaufeli et al. 2008; Shirom et al. 2010). Due to these inconsistencies, we hypothesize a significant correlation between HWI-TC and burnout, albeit we cannot commit to the direction of that association.

H1: HWI-TC is correlated with burnout.

HWI-WI and Burnout

As we mentioned in the "Introduction" section, only few studies examined the effort dimension of HWI. Furthermore, among those which *did* research it, we noticed inconsistencies. On one hand, the literature suggests that heavy effort investment may deplete employees' resources (see: Hobfoll 1989, 2001). Accordingly, some researchers found negative consequences of effort investment, such as impaired well-being (e.g., Green 2008; Meijman and Mulder 1998) and reduced health (Meijman and Mulder 1998). Work may actually be a source for valuable resources, such as "pleasure, self-fulfillment, and existential meaning" (Harpaz 2015, p. 370), which may balance the depleted resources associated with work intensity. Indeed, some researchers found positive outcomes related to high effort invested at work, such as reduced reported burnout (e.g., Tziner et al. 2019) and higher job performance (e.g. Brown and Leigh 1996). In face of these inconsistencies, we would assume a significant correlation between HWI-WI and burnout, albeit we cannot commit to the direction of that association.

H2: HWI-WI is correlated with burnout.

These inconsistencies may hint at the manifestation of moderator variable(s) on the relationship between HWI and its outcomes please see buffering effect section below).

Predictors of HWI

There are many antecedents of HWI (Snir and Harpaz 2015; Taris et al. 2015), both internal and external to the employee. Based on the long discussion regarding the effects of contextual vs. individual differences in the work context (see: Judge and Zapata 2015; Staw and Cohen-Charash 2005), we will test the effects of managerial position (i.e., contextual) and Job Engagement (i.e., individual differences) as the possible moderators (see Fig. 1).

Internal Predictor – Job Engagement (JE)

JE is defined as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli et al. 2002, p. 74). Engaged employees: (1) work hard (*vigor*), (2) are more involved in their work (*dedication*), and (3) are happily immersed in it (*absorption*). Therefore, JE is an internal motivational antecedent of HWI because engaged workers invest heavier, time and effort resources, in their work as they enjoy it (see: Taris et al. 2015). It is highly likely that they would also invest heavier in their job in both – time and effort (see: Taris et al. 2015), because they genuinely want to (Schaufeli et al. 2006).

H3: JE is positively correlated with HWI-TC.
H4: JE is positively correlated with HWI-WI.

JE, HWI and Burnout

Since JE is considered as a positive state-of-mind (Schaufeli et al. 2002), it can be regarded as a positive personal-resource (See: Hobfoll 1989), which may mitigate the effects of stress and burnout. That is to say, a work engaged employee, may feel less burnt-out than other employees as it may act as a "shield" in face of burnout regardless of work demands (see: Peterson et al. 2008). This relationship, theoretically and statistically, is supported by multitude of research, for example: Lebrón et al. 2018; Maricuțoiu et al. 2017; Schaufeli et al. 2002; Snir and Harpaz 2015; Tziner et al. 2019.

H5: JE is negatively correlated with burnout.

As aforementioned, by Snir and Harpaz's (2015, p. 6) mediational model of HWI, JE may act as an antecedent to HWI (see also: Taris et al. 2015), while burnout may be an individual level outcome. Meaning, engaged employees would tend to invest heavier in their work (in terms of time and effort), yet this engagement may also reduce their experienced burnout. Furthermore, the investment of time and effort is associated with work burnout (see: H1 and H2). As such, it is plausible that HWI acts as a mediational mechanism, through which the JE may affect employees' burnout.

H6: HWI-TC mediates the relationship between JE and burnout.
H7: HWI-WI mediates the relationship between JE and burnout.

External Predictor – Managerial Role

"A *manager* is someone who coordinates and oversees the work of other people so that organizational goals can be accomplished." (Robbins and Coulter 2012, p. 5). For the sake of this paper, we address managerial role as a dichotomous variable: (1) those who work in non-managerial roles, and (2) those who *do* work in managerial roles. As employees move up the organizational hierarchy, they are expected to invest more time and effort in their work due to increasing organizational demands (Kinnunen et al. 2008). It seems that the necessity for this higher investment is "built-in" the role of the manager. As for the time dimension of HWI, there have been indications that managers tend to invest more time in their jobs, as opposed to non-managerial employees (Jacobs and Gerson 1997; Kinnunen et al. 2008; Shkoler et al. 2017a, b[1]).

- *H8: Managerial roles are positively correlated with HWI-TC; managers will invest more time in their jobs than non-managerial employees.*

To the best of our knowledge, in the literature, there has been little regard to the investment of the effort dimension of HWI (Snir and Harpaz 2015, p. 6), in general (e.g., Green 2008; Meijman and Mulder 1998. See also: Harpaz and Snir 2016), and for management in particular. Only recently did evidence begin to emerge which point that managers invest more effort in their jobs than non-managerial employees (e.g., Shkoler et al. 2017a, b;[1] Tziner et al. 2019).

H9: Managerial roles are positively correlated with HWI-WI; managers will invest more effort in their jobs than non-managerial employees.

Managerial Roles and Burnout

Managers/leaders "… face a great deal of potential sources of stress… despite having access to greater resources… experience greater amounts of stress because they are more likely to encounter threats or challenges from both inside and outside one's social group… and can lead to emotional exhaustion and poorer performance over time." (Harms et al. 2017, pp. 179–180). Another source for managers' burnout may be their unfulfilled expectations and goals after they are promoted to their managerial roles (Pines 2011. See also: Robbins and Coulter 2012). For example, a manager who thinks of doing meaningful and innovative work may face time-consuming administrative tape and bureaucratic obstacles. When the managers' expectations fall-short of the reality, they are more susceptible to be burnt-out.

Despite the theoretical relationship between management and burnout, it is surprising to discover only very few studies were reported on the relationship between managerial roles and the manager's burnout (based on a recent meta-analysis, see: Harms et al. 2017). Those who did research the topic found out that being a manager/leader *did* result in an increased experienced burnout (e.g., Arnold et al. 2015; Maricle 2013; Pines 2011).

H10: Managerial roles are positively correlated with burnout; managers will be more burnt-out than non-managerial employees.

Managerial Roles, HWI and Burnout

As mentioned before, by Snir and Harpaz's (2015, p. 6) mediational model of HWI, job demands (e.g., managerial position) act as an external predictor for HWI (Snir and Harpaz 2015), while burnout may be an outcome. To elaborate, managers are required by organizational demands to invest more time and effort in their work (Kinnunen et al. 2008), which in time might deplete their resources (Hobfoll 1989, 2001), and lead them to burnout. Thus, it is plausible that HWI acts as a mediational mechanism, through which the managerial position may affect employees' burnout.

H11: HWI-TC mediates the relationship between managerial roles and burnout.
H12: HWI-WI mediates the relationship between managerial roles and burnout.

[1] These are unpublished pieces of information from the data files used in papers mentioned.

Buffering Effect – Person-Organization Value Congruence (POVC)

As noted earlier, Snir and Harpaz (2015, p. 6) suggested various moderators in their model particularly of the link between HWI (as the mediator) and the outcome variables. In parallel, in investigating the bases of the above discussed inconsistent relationships between HWI-TC, HWI-WI, and burnout, it is plausible to assume that these associations may be contingent on the effect of another variable. To that end, we explore the impact of Value Congruence as a moderator of the hypothesized mediations of HWI-WI and HWI-TC on the JE-Burnout and Managerial Role-Burnout relationships.

Value Congruence, as the core element of Person-Organization Fit, and as such, in order to understand its mechanisms and underpinnings, there are two things that need to be clarified: (1) The *person* refers to one's individual knowledge, skills, abilities, and other traits (e.g., personality, values, and interests), and (2) the *environment* refers to the external context of the individual, for example: job characteristics (e.g., challenge and autonomy) and the organization characteristics (e.g., values or pay structure) (see: Oh et al. 2014; Tziner and Meir 2002, p. 63). As such, POVC may be defined as the "compatibility between people and organizations that occurs when: (a) at least one entity provides what the other needs, or (b) they share similar fundamental characteristics, or (c) both" (Kristof 1996, pp. 4–5). Furthermore, POVC is widely accepted as a defining operationalization for Person-Organization Fit (Kristof-Brown et al. 2005), because it may result from the relationship between the person and the organization together (and not by themselves as standalone entities) (Westerman and Vanka 2005). As such, through the entire paper we focus and measure POVC.

The rationale for including POVC, specifically, in our model is because it enables us to make linkages between constructs that might appear unrelated, namely the macro-level (organizational) and the micro-level (individual) perspectives (Pappas and Flaherty 2006. For further reading, see: Morley 2007). In other words, in high POVC, employees would perceive they are already part of the organizational living tissue and that the organization is a part of their identity.

HWI-TC, Burnout and POVC

According to the Conservation of Resources theory (COR; Hobfoll 1989, 2001), POVC is an important resource (time resources, such as: time for work, time with loved ones, free time, and time for adequate sleep; Hobfoll 2001). Thus, time devoted to *over*work is in itself a loss of time-based resources (and it might come at the expense of time for adequate sleep, free time for leisure, etc.). This resource depletion may be balanced by gaining other important resources (Hobfoll 1989, 2001), while on the job (e.g., involvement in organizations with others who have similar interests, advancement in job training, etc.). Therefore, when there is a value congruence the employees' needs and the organizational values are matched, thus reducing the probability of work burnout (Leiter and Maslach 2003).

HWI-WI, Burnout and POVC

As with time devotion, an investment of effort in work is, by definition, a depletion of resources (Hobfoll 1989, 2001). On the other hand, effort may even be rewarding, as Dweck (2000, p. 41) states: "Effort is one of those things that gives meaning to life. Effort means you care about something, that something is important to you and you are willing to work for it". When one perceives higher POVC with the organization's values, his/her work becomes more worthwhile. In contrast, lack of fit/congruence between work resources and demands might constitute stress (see, Hobfoll 2001, p. 343), which in time may result in burnout.

Proposal for Expanding Snir and Harpaz's (2015, p. 6) HWI Model

While Snir and Harpaz (2015) proposed that the moderation effects occur in the HWI-outcomes relationship, we believe those moderators may affect the entire model (i.e., the relationships between (1) predictors-HWI, (2) predictors-outcomes, and (3) as mentioned, HWI-outcomes). It is relatively safe to assume that various moderators may affect more than one association. Individuals with *internal* "genotypes" of HWI (i.e., HWI's antecedents, such as: job engagement, addiction to work, etc.), under certain circumstances (i.e., moderators, such as: job autonomy and leader-member exchange; Shkoler et al. 2017a, etc.) may express more of their behavioral "phenotype" (i.e., heavier investment in work) (See also: Scott et al. 1997). In the same vain, individuals with *external* HWI "genotypes" (i.e., different industries, managerial position, job demands, etc.; Snir and Harpaz 2015), under certain circumstances (i.e., moderators, such as: organizational culture; Shimazu et al. 2015. For example, a culture which idolizes heavy-work investors as "heroes" or role-models) may express more of their behavioral "phenotype" (i.e., heavier investment in work).

In the current study, we will test this proposal by the implementation of POVC in our model as a general moderator, meaning when there is a values congruence (considered as a job resource; Hobfoll 2001) the employee's needs and the organizational values are matched, thus increasing the probability for the expression of HWI-phenotype, regardless of the genotype source (internal and/or external). In addition, it may

also reduce the propensity of experiencing work burnout (as was also aforementioned above).

H13: POVC acts as a general moderator in the current research model (see Fig. 1*).*

Summary of hypotheses and research model are displayed in Fig. 2.

Study 1

Method

Participants

A convenience sample of 186 full-time employees participating in Study 1 from various U.S. organizations and industries, of which 43% were male and 57% were females between the ages of 20–72 years ($M = 29.03$, $SD = 10.49$). In terms of education, 2% had full high-school education, 35% were B.S/B.A. students, 12% had some college education, 13% held a B.S/B.A. degree, and 38% held a M.A degree or above. Regarding their work, 52% were in non-managerial roles, while 48% worked as managers. Tenure ranged between 0 and 33 years ($M = 4.22$, $SD = 5.16$).

Instruments

Job Engagement was gauged by the Utrecht Work Engagement Scale (UWES; Schaufeli et al. 2002) consisting of 17 Likert-type items between 1 ("strongly disagree") and 7 ("strongly agree"), e.g.: "I am enthusiastic about my work". The scale is comprised of three different sub-scales (Vigor, Absorption and Dedication), but we used them as whole (i.e., total JE). The measure had a high reliability ($\alpha = .92$, $M = 4.91$, $SD = 0.94$, Skewness = −0.31, Kurtosis = 0.47, Shapiro-Wilk's test = 0.94, $p = .174$). In addition, in order to assess the viability of JE as a whole one-factor, as opposed to a solution with its three sub-scales, SEM was employed using AMOS (v. 22). For the *one-factor* solution, the fit indices are: $\chi^2(97) = 195.47$, $p = .009$, $\chi^2/df = 2.01$, CFI = .97, NFI = 0.97, GFI = .99, SRMR = .06, RMSEA (90% CI) = .07 (.00–.15), *p-close* = .103. However, the fit of the *three-factor* solution was: $\chi^2(88) = 266.13$, $p = .000$, $\chi^2/df = 3.02$, CFI = .90, NFI = 0.94, GFI = .96, SRMR = .11, RMSEA (90% CI) = .14 (.08–.22), *p-close* = .029. This establishes that the one-factor solution is statistically superior to the three-factor one, and as such we will use this factor in further analyses.

Management was gauged by a single dichotomous question: "Are you currently working in a managerial role in your job?" to which the answers are: 1 = No, 2 = Yes.

Heavy-Work Investment (HWI; see: Snir and Harpaz 2012) was gauged by 10 Likert-type items between 1 ("strongly disagree") and 7 ("strongly agree"). The original measure is based on Brown and Leigh's (1996) paper where it was named "effort in work". The measure is divided into two subscales, five items each: *Time Commitment* (HWI-TC, e.g.: "Few of my peers-colleagues put in more weekly hours to work than I do") and *Work Intensity* (HWI-WI, e.g.: "When I work, I really exert myself to the fullest"). HWI-TC had a good reliability ($\alpha = .83$, M = 4.41, SD = 1.11, Skewness = −0.16, Kurtosis = 0.55, Shapiro-Wilk's test = 0.81, $p = .097$), same as HWI-WI ($\alpha = .90$, $M = 5.92$, $SD = 0.89$, Skewness = 0.47, Kurtosis = 0.32, Shapiro-Wilk's test = 0.91, $p = .109$).

Burnout was gauged by the Maslach Burnout Inventory (MBI; Maslach and Jackson 1981) consisting of 22 Likert-type items between 1 ("a few times a year") and 7 ("every

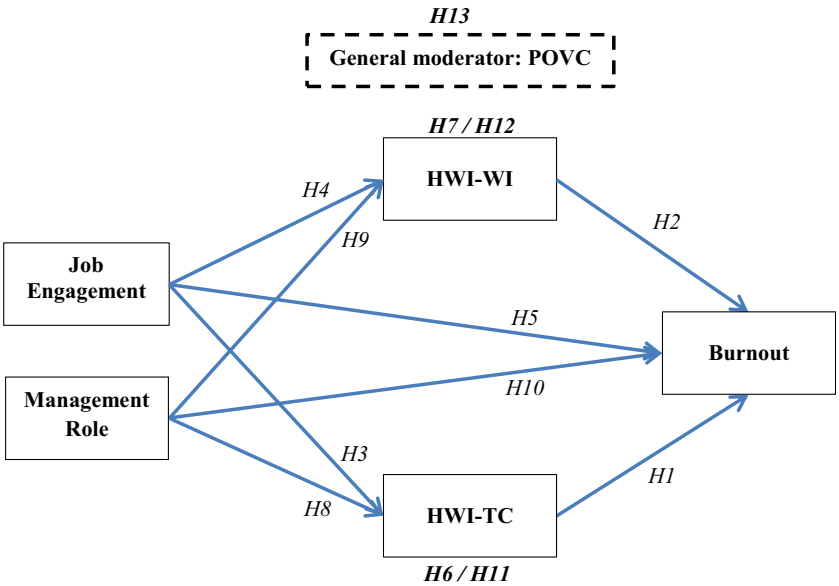

Fig. 2 Research model and hypotheses. *Notes*: Management Role (1 = non-managers, 2 = managers). HWI-TC = Time Commitment dimension of Heavy-Work Investment. HWI-WI = Work Intensity dimension of Heavy-Work Investment. POVC = person-organization value congruence. H6, H7, H11, and H12 are the mediational hypotheses, while H13 is the general moderating hypothesis

day"), e.g.: "I feel emotionally drained from my work". The scale is comprised of three different sub-scales (Emotional Exhaustion, Dedication and Absorption), but we used them as whole (i.e., total Burnout). The measure had a good reliability ($\alpha = .87$, $M = 3.08$, $SD = 0.83$, Skewness = −0.24, Kurtosis = 0.39, Shapiro-Wilk's test = 0.97, $p = .149$). In addition, in order to assess the viability of Burnout as a whole one-factor, as opposed to a solution with its three sub-scales, SEM was employed using AMOS (v. 22). For the *one-factor* solution, the fit indices are: $\chi^2(195) = 477.61$, $p = .000$, $\chi^2/df = 2.44$, CFI = .95, NFI = 0.98, GFI = .99, SRMR = .05, RMSEA (90% CI) = .09 (.00–.15), *p-close* = .057. However, the fit of the *three-factor* solution was: $\chi^2(179) = 748.21$, $p = .000$, $\chi^2/df = 4.17$, CFI = .87, NFI = 0.87, GFI = .90, SRMR = .10, RMSEA (90% CI) = .11 (.04–.16), *p-close* = .008. This establishes that the one-factor solution is statistically superior to the three-factor one, and as such we will use this factor in further analyses.

Person-Organization Value Congruence was gauged by Areas of Worklife Survey (AWS; Leiter and Maslach 2002) consisting of 38 Likert-type items between 1 ("strongly disagree") and 7 ("strongly agree"), across 6 different subscales (Workload, Community, Rewards, Control, Fairness, and Values), however we selected only the items relevant for POVC (named "Values" in the original AWS, with 5 items, e.g.: "My values and the Organization's values are alike"). The measure had a good reliability ($\alpha = .81$, $M = 5.37$, $SD = 1.08$, Skewness = 0.33, Kurtosis = 0.48, Shapiro-Wilk's test = 0.89, $p = .071$).

Control variables were chosen in this study: Gender, age, tenure and education. However, the inclusion of said controls did not have any significant effects on the results.

Procedure

The electronic version of the research questionnaire was emailed as a link to employees in various organizations in the U.S, using the E-mail platform. No specific industry or organization was targeted; working individuals 18 years or older were eligible to participate. The survey was administered via Qualtrics software. Those wishing to cooperate confirmed their participation and were included in the total sample. Data analyses were done utilizing SPSS software (v. 23) and PROCESS add-on algorithm (v. 2.16; Hayes 2018).

Results

Common-Method Bias (CMB)

Harman's single-factor test (Podsakoff et al. 2003) was used to assess the extent to which inter-correlations among the variables might be an artifact of common method variance (CMV). The first general factor that emerged from the analysis accounted only for 28.22% of the explained variance. While this result does not rule out completely the possibility of same-source bias (i.e., CMV), according to Podsakoff et al. (2003) less than 50% ($R^2 < .50$) of the explained variance accounted for by the first emerging factor indicates that CMB is an unlikely explanation of our investigation's findings.

Bivariate Analyses

A Pearson correlational-matrix (Table 1) was calculated in order to view the inter-correlations between the research's variables.

Table 1 shows that: (1) JE was positively associated with HWI-TC, (2) JE was positively associated with HWI-WI, (3) HWI-TC was positively associated with burnout, (4) JE was negatively associated with burnout, and (5) HWI-WI was negatively associated with burnout.

All of these correlations support our hypotheses (H1-H-5 and H8-H10). However, there are no significant relationships between managerial roles and HWI-TC or HWI-WI or burnout, as hypothesized in H8-H9-H10, respectively.

Examination of Mediation Effects (H6-H7 and H11-H12)

In order to test the mediation and moderation hypotheses in a moderated-mediation type model, we employed the use of PROCESS macro (see: Hayes 2018), as depicted in Tables 2 and 3, and Figs. 3 and 4, respectively.

Using JE as a predictor (see Table 2), we can see that no interaction effect was significant (as per H13), and thus, POVCdoes not moderate any of the relationships presented in the research's model (see Fig. 2), and as such the mediation effects are not conditioned. In addition, all the conditions for mediation (JE as a predictor) were met (for further reading see: Baron and Kenny 1986; Frazier et al. 2004; Hayes 2018), and, using AMOS software (v. 23), we discovered that the effects were significant via bootstrapping (see also: Preacher and Hayes 2008). The findings are presented in Table 4. Hence,

Table 1 Pearson correlation matrix ($N = 186$)

	1	2	3	4	5	*M*	*SD*
1. JE						4.91	0.94
2. Management	.20**					1.48	0.50
3. HWI-TC	.20**	.07				4.41	1.11
4. HWI-WI	.54***	.10	.36***			5.92	0.89
5. POVC	.41***	.11	−.02	.32***		5.37	1.08
6. Burnout	−.47***	−.03	.13*	−.36***	−.53***	3.08	0.83

* $p < .05$, ** $p < .01$, *** $p < .001$. JE = job engagement. Management = managerial role (1 = non-managerials, 2 = managers). HWI-TC = Time Commitment dimension of Heavy-Work Investment. HWI-WI = Work Intensity dimension of Heavy-Work Investment. POVC = person-organization value congruence

Table 2 Moderated-mediation analysis for JE as the predictor

Model	Predictor	*b*	*Sig.*	LB[1]	UB[1]
1[a] (D.V.; *HWI-WI*)	Job Engagement	0.45	.000	0.32	0.61
	POVC	0.56	.044	0.02	1.11
	INT (JE × POVC)	−0.07	.102	−0.19	0.06
2[b] (D.V.; *HWI-TC*)	Job Engagement	0.31	.000	0.13	0.48
	POVC	−0.32	.288	−1.21	0.39
	INT (JE × POVC)	0.05	.621	−0.13	0.17
3[c] (D.V.; *Burnout*)	HWI-WI	−0.19	.013	−0.33	−0.04
	HWI-TC	0.17	.000	0.06	0.24
	Job Engagement	−0.22	.000	−0.33	−0.09
	INT (HWI-WI × POVC)	−0.06	.249	−0.17	0.07
	INT (HWI-TC × POVC)	0.01	.795	−0.09	0.11
	POVC	0.01	.950	−0.61	0.64
	INT (JE × POVC)	−0.04	.863	−0.08	0.09

Data from PROCESS output. D.V. = dependent variable. (a) $F(7, 178) = 26.43$, $p = .000$, $R^2 = .32$. (b) $F(7, 178) = 2.77$, $p = .035$, $R^2 = .06$. (c) $F(11, 174) = 16.22$, $p = .000$, $R^2 = .42$, 1-β = 1.00 (post-hoc power analysis via G*Power v3.1.9.4). INT = interaction effect. JE = job engagement. HWI-TC = Time Commitment dimension of Heavy-Work Investment. HWI-WI = Work Intensity dimension of Heavy-Work Investment. POVC = person-organization value congruence. (1) LL and UL = lower and upper bounds of 95% confidence interval (5000 bias-corrected resamples in bootstrapping)

we can conclude that HWI-TC and HWI-WI are *partial* mediators between JE and burnout.

However, none of the conditions for mediation (management roles as a predictor) were met (for further reading see: Baron and Kenny 1986; Frazier et al. 2004; Hayes 2018), and, thus dictates no further analyses. Meaning, no mediation of HWI between management roles to burnout can be derived from the data.

Study 2

Cultural Differences Validation –the USA Vs. the Israeli Samples

In study 1, our model (see Fig. 2) in the USA sample was only partially supported. We believed that a re-testing of this model in a different cultural environment may produce different

Table 3 Moderated-mediation analysis for management roles as the predictor

Model	Predictor	*b*	*Sig.*	LB[1]	UB[1]
1[a] (D.V.; *HWI-WI*)	Management roles	0.11	.388	−0.13	0.37
	POVC	0.32	.136	−0.06	0.75
	INT (management×POVC)	−0.02	.847	−0.22	0.23
2[b] (D.V.; *HWI-TC*)	Management roles	0.12	.463	−0.2	0.48
	POVC	−0.18	.523	−0.72	0.33
	INT (management×POVC)	0.09	.572	−0.23	0.46
3[c] (D.V.; *Burnout*)	HWI-WI	−0.31	.000	−0.44	−0.16
	HWI-TC	0.14	.024	0.03	0.24
	Management roles	0.05	.665	−0.15	0.24
	INT (HWI-WI × POVC)	−0.08	.159	−0.19	0.04
	INT (HWI-TC × POVC)	0.02	.935	−0.09	0.08
	POVC	0.02	.938	−0.58	0.65
	INT (management×POVC)	0.02	.801	−0.19	0.23

Data from PROCESS output. D.V. = dependent variable. (a) $F(7, 178) = 5.81$, $p = .17$, $R^2 = .13$. (b) $F(7, 178) = 033$, $p = .831$, $R^2 = .06$. (c) $F(11, 174) = 13.99$, $p = .000$, $R^2 = .38$, 1-β = 1.00 (post-hoc power analysis via G*Power v3.1.9.4). INT = interaction effect. Management = management role (1 = non-managerials, 2 = managers). HWI-TC = Time Commitment dimension of Heavy-Work Investment. HWI-WI = Work Intensity dimension of Heavy-Work Investment. POVC = person-organization value congruence. (1) LL and UL = lower and upper bounds of 95% confidence interval (5000 bias-corrected resamples in bootstrapping)

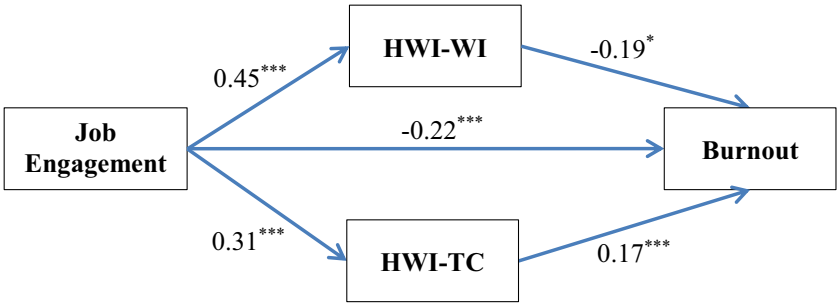

Fig. 3 Path diagram with unstandardized regression coefficients (based on Table 2; USA sample). *Notes*: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. HWI-TC = Time Commitment dimension of Heavy-Work Investment. HWI-WI = Work Intensity dimension of Heavy-Work Investment

results. Thus, we decided to make a *systematic replication* and test our model again, in a different sample comprised of Israeli employees. Both countries boast vast cultural and demographical diversities because of continuing immigrations (e.g., Hofstede 2019). However, there are several distinct differences in cultural values between them. The USA has substantially higher power distance and individualism, as opposed to Israel. On the other hand, "Israel is among the stronger uncertainty avoidant countries… time is money, people have an inner urge to be busy and work hard…" (Hofstede 2019). This has led us to think the model we suggested in Study 1 would be suitably tested in Israel.

Work-wise, in Israel, 14.7% of employees work very long hours, higher than the OECD's average, while the USA's average is below it (OECD 2015). Evidently, the annual hours worked in Israel are consistently higher than in the USA (OECD 2013, 2017). In addition, in Israel, the average hours devoted to personal care and leisure is 13.9, which is less than the USA's average of 14.5 (OECD 2015). This signifies the less recovery time Israeli (vs. USA's) employees have in face of work stressors. Despite the overtime working culture in Israel, burnout measures are consistently and significantly lower than the USA's (Pines 2004, 2011). Even in legal context, in Israel there is more employment protection legislation than in the USA, for both permanent and temporary employees (OECD 2017). Therefore, Israel seems to be an appropriate place to replicate study 1's model (Fig. 2).

Method (Study 2)

Participants

A convenience sample of 221 Israeli full-time employees of various organizations and industries, of which 47% were male and 53% female between the ages of 19–62 years($M = 29.86$, $SD = 9.25$). In terms of education, 48% were B.A students, 2% had some college education, 43% held a B.A/B.S. degree, and 7% held a M.A degree or above. Regarding their work, 62% were in non-managerial roles, while 38% worked as managers. Tenure ranged between 0.1–32 years ($M = 5.94$, $SD = 7.52$).

Instruments

The measures used in study 2 are the exact same as in study 1 (see study 1 method section).

For *Job Engagement*: Skewness = −0.16, Kurtosis = 0.24, Shapiro-Wilk's test = 0.93, $p = .155$. For *HWI-TC*: Skewness = −0.10, Kurtosis = 0.39, Shapiro-Wilk's test = 0.86, $p = .127$. For *HWI-WI*: Skewness = 0.21, Kurtosis = 0.25, Shapiro-Wilk's test = 0.90, $p = .113$. For *Burnout*: Skewness = −0.19, Kurtosis = 0.26, Shapiro-Wilk's test = 0.89, $p = .093$. For POVC: Skewness = 0.13, Kurtosis = 0.33, Shapiro-Wilk's test = 0.92, $p = .105$.

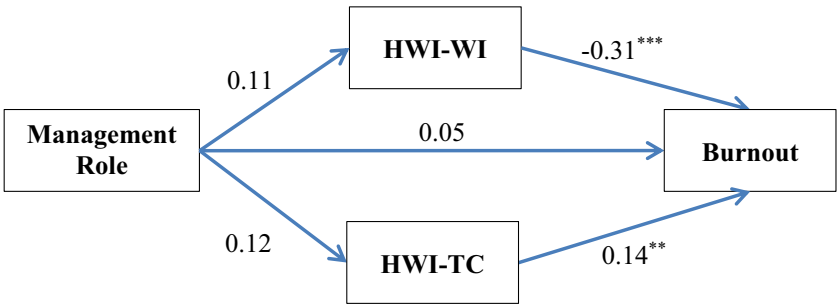

Fig. 4 Path diagram with unstandardized regression coefficients (based on Table 3; USA sample). *Notes*: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. Management Role (1 = non-managers, 2 = managers). HWI-TC = Time Commitment dimension of Heavy-Work Investment. HWI-WI = Work Intensity dimension of Heavy-Work Investment

Table 4 SEM bootstrapping (95% CI) for the standardized indirect effects

Path	Lower bound	Upper bound
JE ➔ HWI-WI ➔ Burnout	−.19	−.04
JE ➔ HWI-TC ➔ Burnout	.02	.13

JE = job engagement. HWI-TC = Time Commitment dimension of Heavy-Work Investment. HWI-WI = Work Intensity dimension of Heavy-Work Investment

In addition, in order to assess the viability of JE as a whole one-factor, as opposed to a solution with its three sub-scales, SEM was employed using AMOS (v. 22). For the *one-factor* solution, the fit indices are: $\chi^2(97) = 173.35$, $p = .041$, $\chi^2/df = 1.78$, CFI = .99, NFI = 0.98, GFI = .99, SRMR = .03, RMSEA (90% CI) = .04 (.00–.19), *p-close* = .348. However, the fit of the *three-factor* solution was: $\chi^2(88) = 251.92$, $p = .000$, $\chi^2/df = 2.86$, CFI = .92, NFI = 0.91, GFI = .95, SRMR = .10, RMSEA (90% CI) = .13 (.02–.27), *p-close* = .000. This establishes that the one-factor solution is statistically superior to the three-factor one, and as such we will use this factor in further analyses.

Furthermore, in order to assess the viability of Burnout as a whole one-factor, as opposed to a solution with its three sub-scales, SEM was employed using AMOS (v. 22). For the *one-factor* solution, the fit indices are: $\chi^2(195) = 391.22$, $p = .029$, $\chi^2/df = 2.00$, CFI = .97, NFI = 0.99, GFI = .99, SRMR = .04, RMSEA (90% CI) = .05 (.00–.09), *p-close* = .244. However, the fit of the *three-factor* solution was: $\chi^2(179) = 735.04$, $p = .000$, $\chi^2/df = 4.10$, CFI = .89, NFI = 0.86, GFI = .94, SRMR = .09, RMSEA (90% CI) = .08 (.00–.12), *p-close* = .063. This establishes that the one-factor solution is statistically superior to the three-factor one, and as such we will use this factor in further analyses.

Control variables were chosen in this study: Gender, age, tenure and education. However, the inclusion of said controls did not have any significant effects on the results.

Procedure

The electronic version of the research questionnaire was emailed as a link to employees in various organizations in Israel, using the E-mail platform. No specific industry or organization was targeted; working individuals 18 years or older were eligible to participate. The survey was administered via Google Forms. Those wishing to cooperate confirmed their participation and were included in the total sample. Data analyses were done utilizing SPSS software (v. 23) and PROCESS add-on algorithm (v. 2.16; Hayes 2018).

Results

Common-Method Bias (CMB)

Harman's single-factor test (Podsakoff et al. 2003) was used to assess the extent to which inter-correlations among the variables might be an artifact of common method variance (CMV). The first general factor that emerged from the analysis accounted only for 25.19% of the explained variance. While this result does not rule out completely the possibility of same-source bias (i.e., CMV), according to Podsakoff et al. (2003) less than 50% ($R^2 < .50$) of the explained variance accounted for by the first emerging factor indicates that CMB is an unlikely explanation of our investigation's findings.

Bivariate Analyses

A Pearson correlational-matrix (Table 5) was calculated in order to view the inter-correlations between the research variables.

Table 5 shows that: (1) JE was positively associated with HWI-TC, (2) JE was positively associated with HWI-WI, (3) HWI-TC was positively associated with burnout, (4) JE was negatively associated with burnout, and (5) HWI-WI was negatively associated with burnout.

Table 5 Pearson correlation matrix ($N = 221$)

	1	2	3	4	5	5	*M*	*SD*
1. JE	**(.95)**						4.81	1.29
2. Management	.17**	–					1.38	0.49
3. HWI-TC	.38***	.04	**(.86)**				4.15	1.39
4. HWI-WI	.56***	.05	.31***	**(.91)**			5.93	0.90
5. POVC	.62***	.04	.20**	.42***	**(.76)**		4.77	1.12
6. Burnout	−.59***	−.07	−.15*	−.33***	−.54***	**(.79)**	3.05	0.72

*$p < .05$, **$p < .01$, ***$p < .001$. Bolded parenthesis on the diagonal depict the reliability coefficents (Cronbach's Alpha). JE = job engagement. Management = managerial role (1 = non-managerials, 2 = managers). HWI-TC = Time Commitment dimension of Heavy-Work Investment. HWI-WI = Work Intensity dimension of Heavy-Work Investment. POVC = person-organization value congruence

All of these correlations support our hypotheses (H1-H-5 and H8-H10). However, there are no significant relationships between managerial roles and HWI-TC or HWI-WI or burnout, as hypothesized in H8-H9-H10.

In order to test the mediation and moderation hypotheses in a moderated-mediation type model, we employed the use of PROCESS macro (see: Hayes 2018), as depicted in Tables 6 and 7, and Figs. 5 and 6, respectively.

JE as a Predictor and Conditional Indirect Effects

As can be seen in Table 6, most of the *interaction effects* were significant (as per H13), and, thus, POVCmoderates the relationships between JE and: (1) HWI-WI, (2) HWI-TC, (3) burnout, and (4) between HWI-WI (but *not* HWI-TC) to burnout, as depicted in our research model (see Fig. 2). As such, most of the mediation effects (H6-H7) are contingent on the levels of POVC(i.e., moderated-mediation). Further analyses required the use conditioned/moderated indirect effects, which are presented in Table 8. We, again, used AMOS software (v. 23) to investigate the indirect effects via bootstrapping (see also: Preacher and Hayes 2008).

As can be seen in Table 8, the negative effect of JE on burnout through HWI-WI increases, as the levels of POVC increase. Moreover, the mediation of HWI-WI is *only* significant, when the levels of POVC are at least *average* or *higher*, not on the lower ones. Hence, we can conclude that only HWI-WI is a *partial* mediator between JE and burnout (in higher levels of POVC), while HWI-TC does not function as a mediator at all.

Management Role as a Predictor and Conditional Indirect Effects

As can be seen in Table 7, most of the *interaction effects* were significant, and, thus, POVC moderates the relationships between management role and: (1) HWI-WI, (2) HWI-TC, (3) burnout, and (4) between HWI-WI (but *not* HWI-TC) and burnout, as presented in the research model (see Fig. 2). As such, most of the mediation effects (H11-H12) are conditioned by the levels of POVC. Further analyses required the use conditioned/moderated indirect effects, which are presented in Table 9. We, again, used AMOS software (v. 23) to investigate the indirect effects via bootstrapping (see also: Preacher and Hayes 2008). Hence, we can conclude that only HWI-WI is a *partial* mediator between managerial roles and burnout, while HWI-TC does not function as a mediator at all.

As can be seen in Table 9, the effect of management roles on burnout through HWI-WI changes, as the levels of POVC vary. Moreover, the mediation of HWI-WI is *only* significant, when the levels of POVC are *average* or *higher*, not on lower ones.

Regardless of the mediation effects, Tables 6 and 7 indicated moderation effects, as follows: (1) increased POVC *enhances* the positive relationship between JE and HWI-WI, (2) increased POVC *enhances* the positive relationship between JE and HWI-TC, (3) increased POVC *enhances* the relationship between management roles and HWI-WI (i.e., managers will have higher HWI-WI), and (4) increased POVC *enhances* the relationship between management roles and HWI-TC (i.e., managers will have higher HWI-TC).

Table 6 Moderated-mediation analysis for JE as the predictor

Model	Predictor	*b*	*Sig.*	LB[1]	UB[1]
1[a] (D.V.; *HWI-WI*)	Job Engagement	0.41	.000	0.31	0.52
	POVC	−0.36	.091	−0.71	0.02
	INT (JE × POVC)	0.11	.023	0.02	0.16
2[b] (D.V.; *HWI-TC*)	Job Engagement	0.53	.000	0.36	0.75
	POVC	−0.66	.049	−1.31	−0.05
	INT (JE × POVC)	0.12	.052	0.02	0.26
3[c] (D.V.; *Burnout*)	HWI-WI	−0.22	.000	−0.32	−0.02
	HWI-TC	0.03	.162	−0.02	0.09
	Job Engagement	−0.13	.000	−0.23	−0.04
	INT (HWI-WI × POVC)	−0.19	.000	−0.3	−0.07
	INT (HWI-TC × POVC)	0.02	.971	−0.05	0.05
	POVC	0.27	.298	−0.24	0.82
	INT (JE × POVC)	0.13	.000	0.05	0.23

Data from PROCESS output. D.V. = dependent variable (a) $F(7, 213) = 35.79$, $p = .000$, $R^2 = .35$. (b) $F(7, 213) = 13.25$, $p = .000$, $R^2 = .17$. (c) $F(12, 209) = 22.87$, $p = .000$, $R^2 = .45$, 1-β = 1.00 (post-hoc power analysis via G*Power v3.1.9.4). INT = interaction effect. JE = job engagement. HWI-TC = Time Commitment dimension of Heavy-Work Investment. HWI-WI = Work Intensity dimension of Heavy-Work Investment. POVC = person-organization value congruence. (1) LL and UL = lower and upper bounds of 95% confidence interval (5000 bias-corrected resamples in bootstrapping)

Table 7 Moderated-mediation analysis for management roles as the predictor

Model	Predictor	*b*	*Sig.*	LB[1]	UB[1]
1[a] (D.V.; *HWI-WI*)	Management roles	−0.02	.957	−0.23	0.2
	POVC	0.81	.000	0.5	1.16
	INT (management×POVC)	−0.31	.033	−0.55	−0.1
2[b] (D.V.; *HWI-TC*)	Management roles	−0.07	.000	−0.43	0.32
	POVC	1.21	.000	0.65	1.73
	INT (management×POVC)	−0.67	.000	−1.02	−0.28
3[c] (D.V.; *Burnout*)	HWI-WI	−0.14	.027	−0.26	−0.04
	HWI-TC	0.02	.418	−0.05	0.08
	Management roles	0.02	.957	−0.16	0.16
	INT (HWI-WI × POVC)	−0.08	.053	−0.17	−0.02
	INT (HWI-TC × POVC)	0.04	.254	−0.02	0.09
	POVC	−0.49	.125	−1.05	0.65
	INT (management×POVC)	0.30	.000	0.13	0.47

Data from PROCESS output. D.V. = dependent variable. (a) $F(7, 213) = 17.59$, $p = .000$, $R^2 = .21$. (b) $F(7, 213) = 6.11$, $p = .012$, $R^2 = .10$. (c) $F(12, 209) = 15.86$, $p = .000$, $R^2 = .36$, 1-β = 1.00 (post-hoc power analysis via G*Power v3.1.9.4). INT = interaction effect. Management = management role (1 = non-managerials, 2 = managers). HWI-TC = Time Commitment dimension of Heavy-Work Investment. HWI-WI = Work Intensity dimension of Heavy-Work Investment. POVC = person-organization value congruence. (1) LL and UL = lower and upper bounds of 95% confidence interval (5000 bias-corrected resamples in bootstrapping)

Discussion

The goals of the current paper are (1) to investigate Snir and Harpaz's (2015, p. 6) conceptual model regarding predictors, outcomes and possible moderators of heavy-work investment (both, time [HWI-TC] and effort [HWI-WI] dimensions), and (2) to perform cultural differences comparison.

Bivariate Correlations (H1-H5 and H8-H10)

In both samples (USA vs. Israel), there are *positive* correlations between: (1) JE and HWI-TC, (2) JE and HWI-WI, (3) HWI-TC and burnout, and there are *negative* ones between: (1) HWI-WI and burnout, (2) JE and burnout, all of which support our hypotheses. However, there are no significant relationships between managerial roles and HWI-TC or HWI-WI or burnout.

As was mentioned in the "Introduction" section, JE is indeed a significant predictor of HWI, and burnout as well. Furthermore, we discovered that the devotion of time (HWI-TC) is positively linked to burnout, while the investment of effort (HWI-WI) is negatively so. Thus, HWI does not unequivocally relate to burnout; the investment of time and effort lead to different results. For example, a heavier devotion of time does not point that the job is necessarily meaningful (e.g., presentism; Rabenu and Aharoni-Goldenberg 2017), but an investment of effort may indicate that the job is indeed meaningful for the employee (Dweck 2000). Such work may become an important resource for the employee (Hobfoll 2001), which may mitigate the depletion of resources, and hence – experienced burnout. In addition, the investment of effort in the job, may eventually lead to increased liking to it through an effort justification (Festinger 1957; See also, the IKEA effect [Norton et al. 2012]). This can be considered as a positive job resource (Hobfoll 2001). However, it is unclear as to which is "the egg" and which is "the chicken", in this regard, meaning, did the employee perceive his/her work as meaningful prior to the heavier-work investment, or did the employee

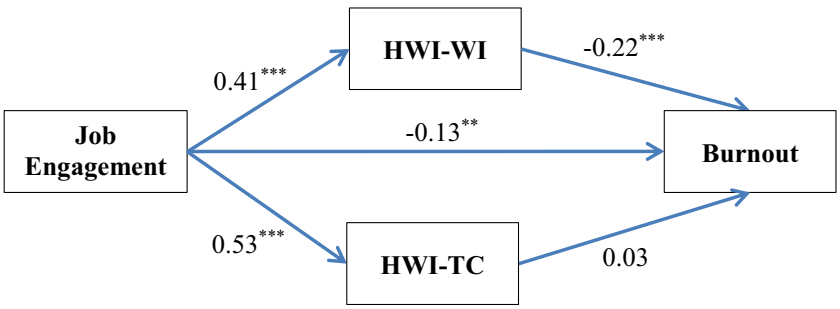

Fig. 5 Path diagram with unstandardized regression coefficients (based on Table 6; Israeli sample). *Notes*: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. HWI-TC = Time Commitment dimension of Heavy-Work Investment. HWI-WI = Work Intensity dimension of Heavy-Work Investment

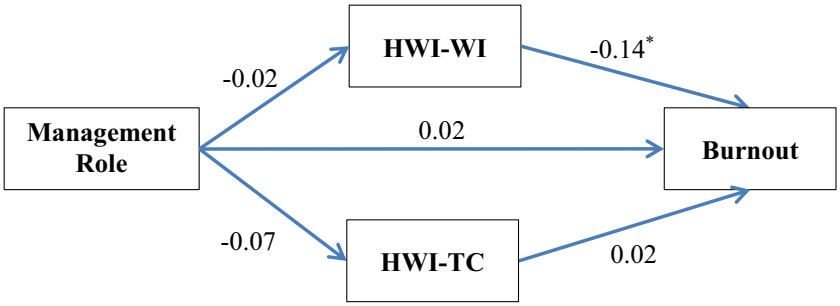

Fig. 6 Path diagram with unstandardized regression coefficients (based on Table 7; Israeli sample). *Notes*: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. Management Role (1 = non-managers, 2 = managers). HWI-TC = Time Commitment dimension of Heavy-Work Investment. HWI-WI = Work Intensity dimension of Heavy-Work Investment

get to like it via 'effort justification' (Festinger 1957; Norton et al. 2012)? We recommend future research to perform semi-experimental designs in which the order of precedence between effort investment and JE can be tested.

Moderated-Mediation Analyses (H6-H7 and H11-H13)

Support for moderated-mediation, as hypothesized (see Fig. 2), was only found in the Israeli sample. This means that the entirety of the relationships in our model (in Israel) conditioned by the degree of POVC, with the exception of the HWI-TC➔burnout link. We suggest the following explanations. Dvir and Malach-Pines (2009) described several distinctive values to the Israeli culture; love of challenges, risk taking, initiative and independence. As evidence, the Israeli culture perceives the entrepreneur as a cultural hero and a role model. These characteristics are amplified by the unique military service most of the Israelis must go through. As Dvir and Malach-Pines (Dvir and Malach-Pines 2009, p. 268. See also: Senor and Singer 2009) wrote:

> … the kind of army experience… in combination with Israeli cultural values are very unusual and seem to indicate a good person-environment fit (e.g. Spokane et al., 2000). Military service, which in many cases requires the ability to cope with stressful challenges, independent thinking and tremendous responsibility, and provides opportunities for accomplishing projects from beginning to end, seems to fit both the Israeli character and high-tech entrepreneurship.

These characteristics do not work in tandem with those of the "the organization man" concept (i.e., an employee, who completely conforms to corporate attitudes and expectations; Webster's new world college dictionary 2014), and hence POVC is of paramount importance in the Israeli case.

Furthermore, the moderation of POVC is as follows; an increased level of POVC: (1) enhances the *negative* relationship between JE➔burnout, (2) enhances the *positive* relationship between JE➔HWI-WI, (3) JE➔HWI-TC, and (4) HWI-WI➔burnout. In addition, POVC also changes the expression of HWI-WI, HWI-TC and experienced burnout – based on the managerial position (as the predictor). When the levels of POVC are *low*, managers would invest more time and effort in their jobs, but will report less burnout – than non-managerial employees. When the levels of POVC are *high*, the opposite occurs; managers would invest less time and effort in their jobs, but will report higher burnout – than non-managerial employees. These findings are, at first glance, perplexing. We, however, offer the following explanations. In a *low* POVC situation, non-managerial employees report more experienced burnout, which may be explained by their lower perceived autonomy/control, in contrast to managers (Rabenu and Aharoni-Goldenberg 2017).

However, since managers achieve their goals through others (Hill 2003), when thePOVC is low, the managers are required to invest heavier in order to achieve the same goals. One of the distinct cultural differences between Israel and the USA is a *very low* power distance in Israel, which manifests through independency of the employees, and facilitating and empowering management (Hofstede 2019). In low power distance, the communication is vastly more informal, and

Table 8 Bootstrapping (95% CI) for conditioned indirect effects (JE ➔ Burnout)

Path	Level of *POVC*	Lower bound	Upper bound
JE ➔ HWI-WI ➔ Burnout	Low	−.02	.07
	Mean	−.11	.00
	High	−.28	−.05

JE = job engagement. HWI-WI = Work Intensity dimension of Heavy-Work Investment. POVC = person-organization value congruence

Table 9 Bootstrapping (95% CI) for conditioned indirect effects (management ➔ Burnout)

Path	Level of *POVC*	Lower bound	Upper bound
Management roles ➔ HWI-WI ➔ Burnout	Low	−.13	.09
	Mean	−.07	.01
	High	.02	.16

Management = management role (1 = non-managerials, 2 = managers). HWI-WI = Work Intensity dimension of Heavy-Work Investment. POVC = person-organization value congruence

"respect among the Israelis is something, which you earn by proving your hands-on expertise" (Hofstede 2019). In such a case (i.e., low power distance and low POVC), Israeli managers would need to shift their power focus from a legitimate type into a referent/role-model one (French Jr. and Raven 1959). They may achieve this by increasing their time and effort investments in the job. Nevertheless, how is it possible that, in *low* POVC, managers simultaneously invest heavier in their job, yet experience less burnout? We believe the answer lies in the other type of fit – person-job fit. Person-job fit is "the extent to which the skills, abilities and interests of an individual are compatible with the demands of the job" (Landy and Conte 2016, p. 535). A manager, who fits the management role well, would feel a positive challenge in face of managing low POVC employees. This may enable such a manager to better express his/her strengths and feel that the job is a meaningful resource (see also: Dweck 2000; Hobfoll 2001). As Hill (2003, pp. 178-179) very beautifully described:

> The most difficult aspect of the general manager's job is the keep functioning day after day without giving up… The essence of the general manager's job is to absorb the emotional strains of uncertainty, interpersonal conflict, and responsibility. It is this aspect of the job that often repels the technically/functionally anchored individual but excites and motivates the managerially anchored individual. This is what makes the job meaningful and exciting

We, however, face additional enigmatic results, in which managers in *high* POVC environment are *lower* in HWI-WI and HWI-TC, yet *higher* in burnout. This may be explained by a research lacuna. That is to say, the HWI measure used in the present research (see study 1's method section) does not address the investment of *emotional effort* at work, but only cognitive/mental and physical effort. It is clear that managers must have good human skills (see: Daft 2010, p. 8), as opposed to non-managerial employees. Execution of these skills, as a part of the manager's daily job, necessitates high degree of emotional effort as those skills are supported by emotional intelligence (e.g., Goleman 2000). Therefore, although we cannot measure the emotional effort in the current paper, we believe that in a situation of high POVC, managers would invest even higher emotional effort because they are more emotionally involved with their work (see also: Daft 2010; Hill 2003). We, thus, postulate that increased investment of emotional effort may deplete the managers' resources (Hobfoll 2001). Because this effort investment is emotionally based, we believe it will be associated with increased emotional exhaustion (for further reading, see: Brouze 2014). See future research section for further reading.

In conclusion, our proposal to elaborate on Snir and Harpaz's (2015, p. 6) model was supported by our findings of a moderated-mediation, in that we believed moderators may affect the entire model (i.e., (1) predictors-HWI relationship, (2) predictors-outcomes relationship, and (3) as mentioned, HWI-outcomes relationship. In addition to the moderation effect, it appears that the investment of effort in the job (i.e., HWI-WI) acts as a *partial mediator* between JE➔burnout. This means that while JE may directly decrease the levels of burnout, this is partially achieved through the investment of effort, as a mediational mechanism (see: Snir and Harpaz 2015). It, again, supports the notion of effort justification (Festinger 1957) and the IKEA effect (Norton et al. 2012).

Practical Implications

As was described in our results, higher investment of effort was associated with decreased levels of burnout. That is counterintuitive, at first glance, since investing more efforts may cause a depletion of resources that might actually lead to burnout (see: Hobfoll 1989, 2001; Leiter and Maslach 2003). However, as was found in our studies, the investment of effort may endow the employee with positive feelings/experiences (see: Dweck 2000; Norton et al. 2012; Shamai 2015), such as: meaning (Dweck 2000) and flow (Shamai 2015). Therefore, organizations should encourage heavy-investment of effort in the job, not necessarily as a medium for increasing productivity per se, but as a motivational mechanism.

In addition, a manager-specific implication of our studies is that managers with high POVC (as measured by value congruence) report higher experienced burnout. High value congruence represents good compatibility between the manager and the organization, and, therefore, it is least expected to lead to high levels of work burnout. We, thus, recommend work places to frequently monitor levels of burnout of managers in

high value congruence, as a pre-emptive step and offer organizational interventions to reduce burnout.

Another practical implication relates to cultural differences. Value congruence served as a moderator only in Israel (as opposed to the USA), due to its entrepreneurial culture. However, we believe that the principles of this culture, as explored in our paper, will be also applicable to entrepreneurial specific organizations in the USA, such as start-ups.

Limitations

First, all of the variables in our research were examined concurrently. Long-term investigation (i.e., longitudinal study) is needed, which is important when examining dynamic variables, such as burnout, which has been found to change over time (Dunford et al. 2012). In addition, our collections of the data were done via online means, and as such might produce different results, were the collection of the data was through a pencil-and-paper method.

Second, human behavior is not necessarily linear, and therefore the assumption that a value congruence is high or low for everyone (managers and non-managers), as a "mathematical axiom" in our moderated-mediation analyses, may be incorrect and might limit our full understanding capacity of the phenomenon.

Third, the demographical data in our study were limited, and lacked other important details, such as: marital status, industry type, job type, and geographical regions. For example, married or coupled can derive support from their spouses, to help them with day-to-day hardships (for further reading, see also: Pines 2011).

Future Research

We recommend re-testing our model (Fig. 2) to differentiate across different managerial positions, and not only between managers and non-managerial employees. This notion is backed up by the different challenges and demands each managerial level has to cope with. For example, junior managers need to transform themselves into becoming a manager (cognitively and emotionally) (see: Daft 2010; Hill 2003). We also recommend using the other aspect of fit, not used in the current study, namely; person-job fit, in order to reach clearer and broader conclusions. As aforementioned, it is highly vital to develop a new measure of HWI (or, alternatively, revise the current one) which will also address the investment of *emotional effort* apart from the cognitive and the physical ones. Last, as we proposed at the beginning of our paper, we must stress continuing the investigation of the elaboration to the HWI model by Snir and Harpaz (2015, p. 6). Namely, we recommend examining this model with additional situational and internal variables, and considering other predictors which may have *both* – positive or negative effects on HWI (such as: socio-economic status, motivation, hedonistic values, willingness to work, work centrality, etc.). We also propose to validate our model across different industries and sectors.

In addition, in order to broaden the cultural comparison, we, firstly, recommend systematic replications of the current research, with the same compared cultures, incorporating cultural differences variables, such as: power distance and individualism/collectivism (see: Hofstede 2019).

We also recommend replicating this study in other cultures, with similar or different backgrounds as the ones used in this research, and also compare between different demographical groups within each culture/country (e.g., Israeli-Jews vs. Israeli-Arabs, Caucasian vs. Latin vs. Asian vs. Afro-American, etc.) and even generational groups (e.g.., Generations X vs. Y vs. Z).

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Compliance with Ethical Standards

Ethics Statement The current study was correlational, based on a survey, and not a manipulation on subjects. At the beginning of each questionnaire, we explained the general goal of the research. Informed consent was obtained from all individual participants included in the study. We ensured anonymity and discretion of the results, and also ensured the subjects know they could leave the participation at any time they choose.

Conflict of Interest The authors declare that they have no conflict of interest.

Informed consent was obtained from all individual participants included in the study.

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