



Feeling Older can be Advantageous: A Study on Generativity, Meaning in Work and Life Satisfaction in Israeli Workplaces

Sagit Shilo-Levin¹ · Amit Shrira¹ · Yaakov Hoffman¹

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Abstract

The current study examined a model whereby the link between generativity and life satisfaction is mediated via meaning in work. Further we wished to assess if this mediation model would be moderated both by employees' chronological and subjective age. Namely although for persons who are older this model should hold irrespective of one' subjective age, for young adults, only those who have an older subjective age should show the benefits associated with increased generativity. The study sampled 654 employees from a variety of companies (mean age = 37.34, $SD = 12.01$). Participants completed questionnaires assessing generativity, meaning in work, life satisfaction, and subjective age. The mediation model was significant, i.e., the generativity-life satisfaction link was mediated via meaning in work. Moreover, while this model was evident for older employees, in accordance with the hypothesis, it was only true for young employees who had an older subjective age. Generativity in the workplace is advantageous both to the employer and employee, even for young workers who hold an older age identity. One's subjective age may be quite informative in the work context, as it may reflect motivations related to a different developmental stage, which may be advantageous to the worker and to the organization.

Keywords Generativity · Meaning in work · Life satisfaction · Subjective age

1 Introduction

In this study we examine if the association between workers' level of generativity and their satisfaction in life is mediated via their level of meaning in work. Moreover, we examine if this mediation may be moderated both by workers' chronological and subjective age (e.g., how old they feel). As explicated below, generativity has its roots in the developmental theory of Erikson (1959), which is driven by chronological age, i.e., generativity becomes

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✉ Sagit Shilo-Levin
sagitlevine@gmail.com

¹ The Interdisciplinary Department of Social Sciences, Bar-Ilan University, Ramat Gan, Israel

relevant in middle adulthood. In the current study we wish to examine the concomitants of generativity in young adults who hold an older subjective age.

1.1 Generativity

Generativity according to Erikson (1959) characterizes adults in their young 40–60's, and refers to the individuals shift of focusing from one's own intimacy to society, such as raising a family, sharing one's experience at the workplace to advance other workers, and volunteering in the community. Erikson (1959) further claimed that during the middle adult years, individuals developmentally face a conflict between stagnation, i.e., where one continues to focus on one's self vs. generativity, where one shifts the focus to concern for the "other", i.e., one's children, peers, workers, community etc. (see also McAdams et al. 1998). Later studies found that generativity is associated with positive outcomes (Schoklitsch and Baumann 2011), such as one's well-being (Hofer et al. 2008), purpose in life (Busch and Hofer 2012), and life satisfaction (e.g. Ackerman et al. 2000; Hofer et al. 2008). Recently, generativity has also been linked to meaning in life (Hofer et al. 2014). In the current study we will examine if generativity is also linked to meaning in work, which is defined in the next section.

1.2 Meaning in Work and Generativity

Frankl (1984) in his monumental work, identified one's search for meaning as a central motivation in recent generations. More recently researchers have focused on finding meaning in work, this is especially true today as the individual is spending more time at the workplace in recent years. Contemporarily, the work is viewed as a place that persons may fulfill their psychological, social, and economic needs, in order to achieve a sense of purpose in their work (Rosso et al. 2010).

Thus, meaning in work is an overarching concept comprising a variety of terms, such as work meaning, work meaningfulness, and the positive aspects related to meaning in work (Steger et al. 2019). More specifically, meaning in work relates to the beliefs, values, and attitudes that individuals attribute to their work (Brief and Nord 1990; Chalofsky 2003). Meaning in work is related to one's personal environment fit, i.e., the match between the work requirements and the worker's abilities, goals, skills, proficiency and aspirations (Zhang et al. 2019). Achieving a high sense of meaning in work is related to different positive organizational outcomes, such as high organizational commitment (Jung and Yoon 2016), high work satisfaction (Duffy et al. 2015), higher trust in the management and better team work (Wrzesniewski 2003), higher wellbeing (Pratt and Ashforth 2003), high engagement and performance (Steger and Dik 2010), less absenteeism from the workplace (Clausen et al. 2014), and less burnout (Clausen and Borg 2010).

Rosso et al. (2010) present an integrative model of meaning in work, whereby 2 underlying axes are driving one's level of meaning-in-work. First, it is necessary to distinguish between two basic motivations, namely, communion, i.e., to engage and be concerned for others vs. agency, i.e., to be individualized and independent. Second, the object (self or others) in which one's energy is invested in. These 2 axes generate different types of work meaning, which differ by whether individuals are interested in their self vs. others and likewise the amount of energy invested into their self vs. other. As meaning in work addresses the issue of concern for others, a high level of generativity should be linked with high

levels of meaning in work. As shown below, when level of meaningfulness is high at the workplace, individuals may feel satisfaction in their life.

1.3 Life Satisfaction

Life satisfaction is an important concept in positive psychology, which refers to an overall cognitive judgement of one's life, e.g., "am I satisfied with my life?" (Diener et al. 1985). Life satisfaction is an important component in one's level of overall subjective well-being, namely, both emotional aspects (such as positive affect) and cognitive aspects. Studies link life satisfaction with job-related-factors, such as high performance (Jones 2006) and low levels of burnout (Rode et al. 2007). One common explanation of this link between meaning in work and life satisfaction is embedded in a bottom-up-approach (Diener et al. 1999), which in turn assumes that one's experience with objective life conditions across different domains, such as work, family, health etc., determine one's level of life satisfaction (Heller et al. 2004). The underlying tenet is that individuals have basic needs, and if they are fulfilled they will be satisfied with life (Erdogan et al. 2012). Following this rationale, when individuals feel that their work is meaningful and their effort will lead to positive outcomes—they should feel higher life satisfaction.

1.4 Moderators: Subjective and Chronological Age

We have reviewed research to support the basic mediation model, whereby the link between generativity and life satisfaction should be mediated via meaning in work. Yet we also putatively suggest that while this model should be significant for older adults, it will not hold for all young adults. Rather this mediation model should only hold for young adults who feel older, but not for young adults who feel their own age or younger (Kotter-Grühn et al. 2016; Stephan et al. 2018). In older adults, feeling younger than one's age may be a resource (see Hoffman et al. 2016). While older adults generally feel younger than their age, young people tend to feel older than their age (Rubin and Berntsen 2006). This was found to be a global phenomenon across cultures and countries (Barak 2009). In addition, in older adults, one's level of subjective age is more predictive of well-being than one's chronological age (Montepare 2009). Subjective age may actually link or ground one to motivations related to a distinct developmental phase (Barrett and Montepare 2015). Accordingly, feeling younger can be advantageous from certain perspectives. For example, in the context of workplaces having a younger subjective age was advantageous in that workers feeling younger felt less work-related stress (Barnes-Farrell and Piotrowski 1991). On the other hand, feeling older could also be advantageous from other perspectives (Barrett and Montepare 2015), as for example, it may be associated with higher levels of autonomy and responsibility (Barker and Galambos 2005). Accordingly, having an older subjective age was a buffer against effects of low self-efficacy in the workplace (Rodríguez-Cifuentes et al. 2018).

It is important to note that most studies used a single item to gauge subjective age (how old do I feel?), however, several scholars, beginning with Kastenbaum et al. (1972) and followed by Barak and colleagues (Barak and Schiffman 1981; see also Barak 1987) recommended a multidimensional approach and suggested four major dimensions (e.g., How old do I look?). This approach was further developed by Kornadt et al. (2018).

Following the above, young adults feeling older than their age may feel a more desirable developmental status (Giles et al. 2010). Accordingly, young adults who have an older

subjective age, may feel more concern for others (generativity) and achieve the benefits associated with generativity. While such a contention may seem novel as Erikson's (1959) developmental phases are driven by chronological age, others have suggested that generativity may be evident even in children if they were exposed to certain parenting styles (McAdams et al. 1993) or being involved in community work (Lawford et al. 2005). Furthermore, Lang and Carstensen (2002) suggested that (chronological) age differences disappear when one's level of subjective future time perspective is equalized, e.g., if young people feel limited future time perspective, their generativity will increase and will equal that of older adults. Accordingly, and in line with the aforementioned rationale, we wish to examine, if young adults who feel older will benefit from their increased generativity like older adults do.

In summary, as depicted in Fig. 1a, we hypothesize a moderated moderation mediation model, whereby one's level of generativity should be associated with life satisfaction via meaning in work. While this mediation model should be true for older adults regardless of their subjective age, this model should only hold for young adults who have an older subjective age.

1.5 Hypotheses

In summary, based on the above we hypothesize the following 3 predictions:

1. There will be an indirect effect of generativity on satisfaction in life through meaningful work, so that higher generativity will be related to higher meaning in work, which in turn will be related to higher life satisfaction (see Fig. 1b: $a_1 \times b$).
2. The effect of generativity on meaningful work is contingent on participants' subjective age and chronological age (see Fig. 1b: a_7). While for older adults, the association between generativity and meaning in work will be positive and independent of how old one feels, for young adults this positive generativity–meaning in work association will only hold if they feel older. For young adults who have a younger subjective age there should be no association between generativity and meaning in work.
3. The conditional indirect effect of generativity on satisfaction in life via meaningful work depends on one's subjective age as a function of one's chronological age. Namely, the aforementioned mediation model (Hypothesis 1, Generativity→Meaning in work→Life satisfaction) should hold for older adults irrespective of their subject age. This mediation would only hold for young adults if they feel older, but not if they have a younger subjective age.

2 Method

2.1 Participants

The current study used a cross-sectional design to sample 654 workers from Israeli workplaces. These respondents were part of a larger sample of workers. We recruited employees from different workplaces in Israel via a convenience sampling method using snowballing, whereby research assistants began by approaching their co-workers. Temporary workers were not included (e.g., workers outsourced from manpower companies). Participants (M age = 37.34; SD = 12.01 years) were mostly female (61.3%). In terms of education, 17.8% were high-school graduates, 19.6% received post-high school education, 38.8%

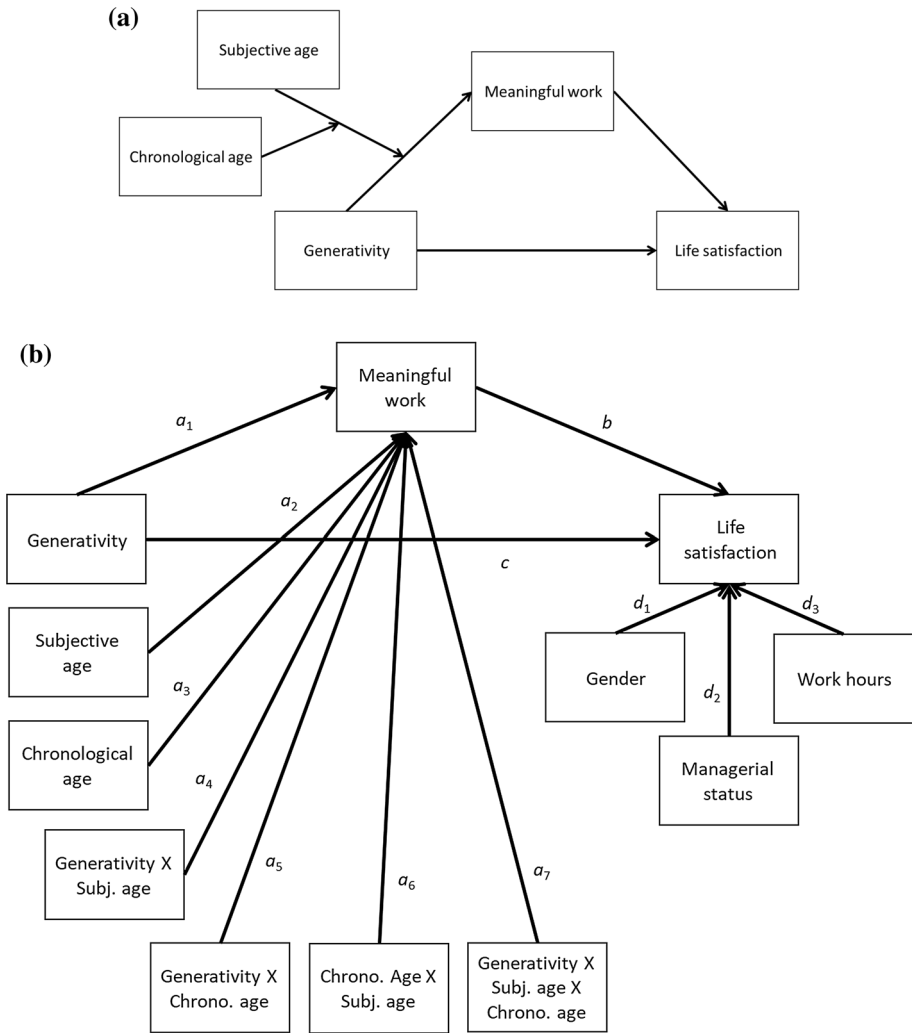


Fig. 1 The conceptual (Panel a) and statistical (Panel b) form of the conditional process model (moderated moderation mediation) with a visual depiction of the ordinary least squares regressions estimated and reported in Table 2. In this model, the effect of generativity on meaningful work is hypothesized as contingent on (or moderated by) subjective age (primary moderator) as a function of chronological age (secondary moderator). Meaningful work is the proposed mediator of the effect of generativity on life satisfaction. The indirect effect of generativity on life satisfaction through meaningful work is supposed to be conditional, and the direct effect of generativity on life satisfaction is supposed to be unconditional

were university graduates of a Bachelor’s degree, 23.3% had either a Master’s or doctorate degree. Their subjective socio-economic status (single item measured by 1 [very bad]–5 [very good]) was high, over 92% were average and above ($M = 3.46$; $SD = 0.75$). More than 20% were single (25.2%), 61.2% were married, 4.8% divorced, 7.9% living with partner and 0.4% were widowed; data were recoded into a dichotomous variable (1 = with partner, 2 = without partner). Professional experience was recorded both in general (how many years one was working in this field, $M = 12.36$, $SD = 10.09$) and specifically (how many

years at the current workplace, $M=9.97$, $SD=9.18$). Daily average of work hours was 9.28 ($SD=2.35$). The distribution of managerial level was as follows; senior manager 11.5%, intermediate level-manager 27.6%, low managerial level was 23.9%, and the rest were workers (without any managerial position).

A wide range of occupations were represented in the sample, including security, education, high-tech, accounting, technician-related, consultation, engineering, and human resources.

2.2 Measures

Satisfaction with life The Satisfaction with Life scale (SWLS; Diener et al. 1985) is a 5-item measure assessing life satisfaction (e. g., “In most ways my life is close to the ideal”; Cronbach’s $\alpha=0.87$). Items are rated from 1 (*strongly disagree*) to 7 (*strongly agree*). Research has supported score reliability and validity (Diener et al. 1985). The Hebrew version was previously used (e.g. Shrira and Shmotkin 2008).

Meaningful Work Meaningful work was assessed via the Work and Meaning Inventory (WAMI; Steger et al. 2012). This measure comprises 10 items (e.g., “I have found a meaningful career”, Cronbach’s $\alpha=0.90$). Items are rated from 1 (*very little*) to 5 (*very much*). Research has supported score reliability and validity (Steger et al. 2012). The questionnaire underwent back-and-forth translation by 2 persons fluent in English and Hebrew.

Generativity The Loyola Generativity Scale (LGS) was used in this study to gauge generative concern. This scale comprises 20 items (e.g., “I think that I will be remembered for a long time after I die,” Cronbach’s $\alpha=0.83$) that represent a general disposition for generativity. Items are evaluated on a 5-point Likert scale from 1 (*never*) to 5 (*very often*). The questionnaire underwent back-and-forth translation by 2 persons fluent in English and Hebrew.

Subjective age Participants’ subjective age was measured across seven domains (i.e., family, friends, leisure activities, personality, appearance, mental, and physical), whereby participants were instructed to write their felt age (e.g., “how old do I feel in general according to my appearance?”) with regard to each domain (adapted from Kornadt et al. 2018). For each domain and every participant, we then computed a proportion score (cf. Stephan et al. 2015), whereby we subtracted one’s subjective age from one’s chronological age and divided this product by one’s chronological age ((Age-Subjective age)/Age). Subsequently we averaged these scores across domains to produce a final subjective age score (Cronbach’s $\alpha=0.91$).

3 Procedure

Research questionnaires were distributed at workplaces throughout the country via the recruited research assistants. Workplace selection was determined by the criterion of organization representation in Israel by the type of activity they engage in: industrial organizations, service organizations, and commercial organizations. Based on this criterion, questionnaires were distributed in a diverse range of organizations: security organizations, high-tech companies, government ministries, educational institutions, industrial plants, and business organizations. After making arrangements with the directors of the organizations, questionnaires were distributed to workers who met the criteria for participation in the study, that is, full-time or part-time jobs and not temporary workers. All of the participants responded to the questionnaires voluntarily. Questionnaires were in an electronic format

(Google-Docs) and persons responded to them on a PC. The questionnaire comprised other items not reported in this study, and the total amount of time for completion was approximately 30 min. Response rate was over 90%. Respondents who agreed to participate provided written informed consent to procedures approved by the Departmental Review Board at Bar-Ilan University.

4 Data Analysis

Data analysis was conducted in 2 stages. First, we analyzed descriptive statistics, reported in Table 1. In the second stage, a moderated moderation mediation model (Model 11) was conducted using the PROCESS macro for SPSS 25 (Hayes 2013). As depicted in Fig. 1 (a-the conceptual and b-the statistical form of the model), in this model the independent variable (X) was generativity and its association with dependent variable (Y), i.e., satisfaction with life was thought to be mediated by meaningful work (M). We tested if this mediation model, particularly the generativity-meaningful work association, was moderated by participants' subjective age across different ages. In other words, this double moderation (subjective age and chronological age) should reveal under which conditions this mediation model holds. We controlled for the following variables in this model: gender, managerial level, and daily work-hours. We did not include work experience as it was highly correlated with age ($r > 0.67$). Missing data ranged from 0.6–1.6% across the different questionnaires.

5 Results

5.1 Descriptive Statistics

Table 1 presents the descriptive statistics. Higher levels of generativity were associated with higher levels of meaningful work ($r = 0.46$, $p < 0.0001$) and higher levels of life satisfaction ($r = 0.24$, $p < 0.0001$). Higher life satisfaction was associated with higher meaningful work ($r = 0.36$, $p < 0.0001$). Although life satisfaction and meaningful work

Table 1 Descriptive Statistics and Correlations for the Study Variables

	<i>M</i> / <i>%</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Age	37.34	12.01	–						
2. Subjective age	0.07	0.22	.59 ^c	–					
3. Generativity	3.68	0.57	.10 ^b	.09 ^a	–				
4. Meaningful work	3.99	0.85	.03	.10 ^a	.46 ^c	–			
5. Life satisfaction	5.43	1.15	.07	.18 ^c	.24 ^c	.36 ^c	–		
6. Gender (Women)	61.3%	–	–.10 ^b	–.16 ^c	.03	–.008	–.02	–	
7. Managerial level (non-managers)	36.6%	–	–.22 ^c	–.12 ^c	–.26 ^c	–.18 ^c	–.14 ^c	.18 ^c	–
8. Daily working hours	9.28	2.35	–.09 ^a	–.01	.14 ^c	.16 ^c	.05	–.19 ^c	–.33 ^c

$N \leq 654$. Correlation values represent Pearson coefficients except for coefficients, gender that represent point-biserial coefficients. For Gender 1 = male, 2 = female, for managerial level 5-through-1 depict worker to highest level of management ^a $p < .05$; ^b $p < .01$; ^c $p < .001$

were not associated with chronological age, higher generativity was associated with an older chronological age ($r=0.10$, $p<0.01$). In contrast, a younger subjective age was associated with all three variables, namely, higher life satisfaction ($r=0.18$, $p<0.0001$), more meaningful work ($r=0.10$, $p<0.05$), and greater levels of generativity ($r=0.09$, $p<0.05$).

5.2 Full Model

To test the proposed model, 2 steps were followed: First, we verified whether the effect of the generativity-life satisfaction association was mediated by meaningful work, and we estimated the indirect effect of generativity on life satisfaction through meaningful work. Second, we tested whether this indirect effect of generativity on life satisfaction via meaningful work is a conditional indirect effect, depending on one's subjective age as a function of one's chronological age.

First, as can be seen in Table 2 (Model 2), there is a positive direct effect of generativity on satisfaction in life (see Table 2: c' , $p=0.051$), that is higher levels of generativity were associated with higher satisfaction in life. There was also a positive indirect effect of generativity on satisfaction in life through meaningful work ($a_1 \times b=0.26$, $SE=0.04$, $95\%CI=0.17-0.36$), that is, the positive relationship between generativity and higher satisfaction in life can at least be partially explained by an increase in meaningful work, thereby confirming our first hypothesis.

Second, the results of an ordinary least squares regression in which meaningful work is estimated from generativity, chronological age and subjective age, and their products, can be also found in Table 2 (Model 1). The effect of generativity on meaningful work was contingent on both participants' chronological and subjective age, thereby confirming Hypothesis 2 (see the significant interaction term in Model 1, Table 2: a_7). Moreover, as suggested by Hypothesis 3, the conditional indirect effect of generativity on satisfaction in life via meaningful work depended on one's subjective age as a function of one's chronological age (moderated moderation mediation coefficient=0.02, $95\%CI=0.01-0.05$).

More precisely, different indirect conditional effects were obtained across the combinations of chronological and subjective ages. While for older chronological ages this indirect effect (generativity→meaningful work→life satisfaction) held regardless of one's subjective age (young subjective age: 0.27, $SE=0.05$, $95\%CI [0.17, 0.37]$; older subjective age: 0.22, $SE=0.07$, $95\%CI [0.08, 0.36]$), in young persons, this indirect effect only held for those who felt an older subjective age (young subjective age: 0.06, $SE=0.06$, $95\%CI [-0.05, 0.18]$; older subjective age: 0.34, $SE=0.07$, $95\%CI [0.21, 0.49]$).

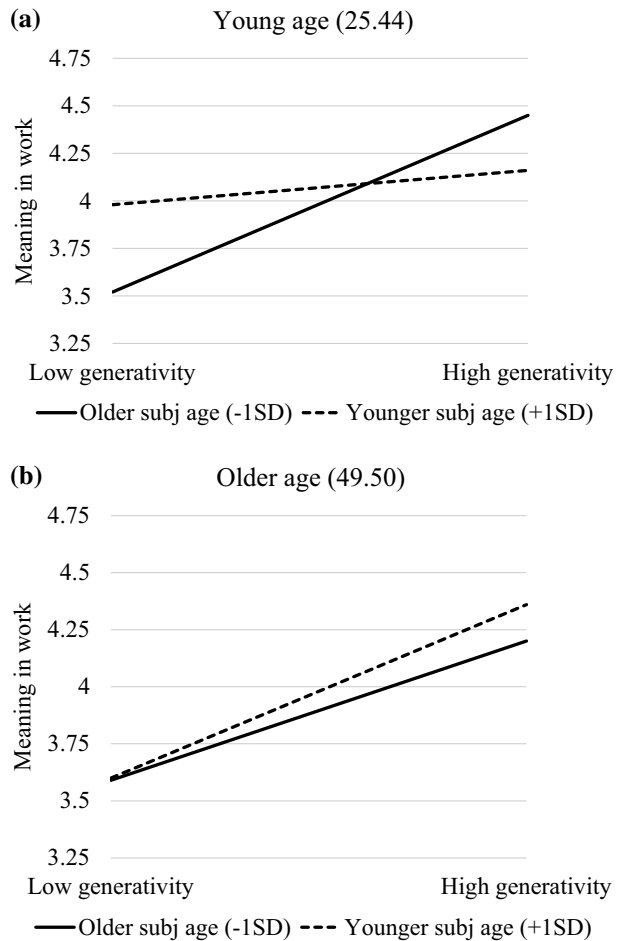
The interaction is shown in Fig. 2, which plots the conditional effects (simple slopes) of generativity on meaningful work for various values of subjective age ($\pm 1 SD$ from the mean); this is computed for young (Fig. 2a), and older participants (Fig. 2b). The association between generativity and meaningful work is positive for older persons regardless of their subjective age. For young persons the association between generativity and meaningful work is dependent on feeling older than one's age.

Finally, as can be seen in Table 2, the conditional Model 1 (moderated moderation) accounted for approximately 24% of the variance in meaningful work, $R^2=0.24$, $F(10, 643)=20.64$, $p<0.0001$. The 3-way interaction between generativity, subjective age and chronological age accounted for 1.3% of the variance in meaningful work. The overall

Table 2 Ordinary Least Squares Regression Model Coefficients with 95% Bias Corrected Bootstrap Confidence Intervals (Standard Errors in Parentheses)

Outcomes	Model 1					Model 2				
	Meaningful Work					Life satisfaction				
	Coefficient (SE)	p	LL	UL	95% CI	Coefficient (SE)	p	LL	UL	95% CI
Intercept	1.63 (.80)	.04	0.06	3.21		3.56 (.41)	.000	2.75	4.36	
Generativity	0.61(.21)	.003	0.20	1.02		0.16 (.08)	.05	-0.001	0.33	
Subjective age	12.09(2.99)	.000	6.21	17.98						
Chronological age	-0.0003(.02)	.98	-0.04	0.04						
Generativity X Subjective age	-3.23(.80)	.000	-4.82	-1.65						
Generativity X Chronological age	-0.0009(.006)	.87	-0.01	0.01						
Subjective age X Chronological age	-0.25(.07)	.001	-0.41	-0.10						
Generativity X Subjective age X Chronological age	0.07(.02)	.0008	0.02	0.11						
Meaningful work						0.42(.05)	.000	0.31	0.53	
Gender	0.01(.06)	.81	-0.10	0.13						
Managerial status	-0.03(.02)	.14	-0.07	0.01						
Work hours	0.03(.01)	.02	0.005	0.05						
Model R ²	0.24	.0000								
3-way interaction ΔR^2	0.01	.0008								

Fig. 2 Conditional effects (simple slopes) of generativity on meaningful work at various values of subjective age (plus and minus one standard deviation from the mean) for young (Panel a) and older workers (Panel b)



conditional Model 2 (mediation model) accounted for approximately 13.9% of the variance in life satisfaction, $R^2 = 0.13$, $F(5, 648) = 20.91$, $p < 0.0001$.

6 Discussion

In the current study we aimed at assessing the generativity-life satisfaction link to see if it is mediated via meaning in work and whether this mediation is jointly moderated by chronological and subjective age. Results demonstrated that the mediation did not exist for young adults who feel younger, in fact, their low level of generativity was not even related with meaning in work, a prerequisite for mediation.

The current results have 2 important contributions. First, to our knowledge it is the first study that addresses such a mediation model, whereby generativity is associated with life satisfaction via one's level of meaning in work. Meaning in work, like meaning in life is a relatively new concept (e.g., Steger et al. 2012). Following Steger et al. (2012), individuals who have high meaning in work, possess qualities that are desirable

to organizations, such as better team work (Wrzesniewski 2003), less absenteeism from the workplace (Clausen et al. 2014), and less burnout (Clausen and Borg 2010). Moreover, high meaning in work is also associated with general overall well-being (Arnold et al. 2007). Thus, from an employer's point of view, workers should be high in generativity, as this will increase individuals' meaning in work, which in turn will be associated with higher life satisfaction. This is important as is known as well that high life satisfaction is associated with job-related-factors, such as high performance (Jones 2006) and low levels of burnout (Rode et al. 2007). Obviously, for the same reasons, it is also important for workers to be in a state of well-being, deriving meaning from work and feeling good about their life. Accordingly, this is a win-win situation.

The second issue is that one may have thought that such a model would only apply to older workers, who have developmentally entered middle adulthood and have thus become more aware of their concern for others (Erikson 1959). Yet in line with Lang and Carstensen (2002) and McAdams et al. (1998), the current results show that generativity may be applicable even to young adults, provided they have an older subjective age. This point is very important, as young adults who feel older than their cohorts, may be feeling mature in the sense that they have societal goals, where they can express their concern and care for others and care for the advancement of these others (Barrett and Montepare 2015). As shown above, this generativity is associated both with meaning in work and life satisfaction. Thus, although the data are preliminary, they suggest that one's subjective age may be relevant to specific motivations (i.e. generativity) associated with high meaning in work and life satisfaction among young employees.

In other studies, the average subjective age of work teams rather than the individuals, was used (Goecke and Kunze 2018; Kunze et al. 2015). In one study, results revealed that when workers felt older they found higher meaning (Kunze et al. 2015), yet this study was across the entire chronological age-span without differentiating results by chronological age. Further, this finding only held under conditions of high environment dynamism. In the second study, white-collar (but not blue-collar) older workers showed less absenteeism if they worked in a company with a younger average subjective age (Goecke and Kunze 2018). In other cases, an older subjective age was advantageous. For example, having an older subjective age was a buffer against effects of low self-efficacy (Rodríguez-Cifuentes et al. 2018). In a different study unrelated to work-related contexts, one's self-assessment of one's cognitive capabilities was more accurate for persons feeling older (Segel-Karpas and Palgi 2019).

Thus, although further research is necessary, it seems that effects of subjective age on work may be complex, and specific to given conditions (e.g., organization high in dynamism; white vs. blue collar). Moreover, it seems that such effects may be dependent on the relevant to-be-measured variable. If the desirable variable, e.g., generativity, is associated with an older subjective age, then feeling older should be positive. If on the other hand we are interested in individual goal accomplishment, perhaps having a younger subjective age (that is associated with feeling more energetic) could be beneficial (at least when under conditions of high environment dynamism; Kunze et al. 2015).

These mixed results may also depend on the worker's chronological age. For example, a recent study (Nagy et al. 2019) found that job crafting behavior (i.e., a form of proactive behavior, whereby a worker initiates changes aimed at enhancing his/her work experience and its alignment with one's personal goals) was associated with a younger subjective age in older adults. Such findings indicate that for older adults it may be advantageous to act younger in the workplace, insofar as one is trying to maximize personal work goals. In other words, for older adults, feeling younger may be advantageous, as one can now act in

a manner linked to an earlier developmental stage of fulfilling personal goals. Our results showing that young adults who feel older benefit to a greater extent from their generativity and concern for others. Namely, feeling older in this case may mean one links motivations related to a distinct later developmental phase (Barrett and Montepare 2015) to accrue its advantages.

Thus pending further research, this latter point is very important for 2 reasons. First, feeling older or younger than one's age may comprise both advantages and disadvantages. For example, feeling younger may be associated with higher energy levels and goal accomplishment. On the other hand, feeling older may be beneficial in terms of actualizing the goals of later developmental phases, such as generativity, which is linked to work meaning and life satisfaction. Second, while as opposed to chronological age, subjective age can be changed (e.g. Stephan et al. 2013). Accordingly, awareness of the favorable conditions associated with a young or older subjective age may be valuable.

This study has several limitations. First, it was a cross-sectional design, thus causality cannot be discerned, i.e., did generativity cause higher meaning in work. Second, the types of workplaces were not representative; namely, this sample was biased towards large organizations/companies and white-collar workers. This likely occurred as a result of the snowball sampling method. Furthermore, as participants were recruited in this fashion, the sample was slightly biased towards females (61%) which may have impacted for example, subjective age ratings (Barrett 2005, although see supplementary analyses as well). A third potential outcome of this sampling method is that we did not address cultural diversity. In addition, it is possible that our variables have reciprocal effects so that meaning in work increases one's tendency towards generativity, or that a stronger sense of life satisfaction augments generativity. Thus, although our rationale for viewing generativity as a predictor was theory driven, as it is a basic motivation; the relation between study variables may indeed be reciprocal. These potential effects may be assessed in future longitudinal designs.

Future studies can focus on a cross-lagged-design, where these variables (generativity, meaning in work, and life satisfaction) along with concomitants (e.g., such as absenteeism, productivity, and lower burnout rates) are measured at two time-points to directly discerning causality between the degree of generativity associated with young adults feeling older and these outcome measures. Further, it would also be interesting to address the impact of other important factors on this basic model of linking generativity with meaning in work at different subjective age levels, such as one's motivation (Oh and Roh 2019), one's level of self-actualization (De Boeck et al. 2019; Fernando and Chowdhury 2017), one's autonomy and one's competence levels (Martela and Riekkilä 2018).

The current study also has several advantages. To our knowledge, it is the first to examine the role of meaning in work as mediating the link between generativity and life satisfaction. Second, it addresses both how meaning in work and the general mediation model are moderated by chronological and subjective age. In summary, although preliminary, the results are robust, and suggest that an older subjective age in young workers may comprise advantages both for the worker whose meaning in work and life satisfaction may increase, and for the company, as reviewed above, as many concomitants of both meaning in work and life satisfaction are beneficial to employers as well.

Author contributions Raw data supporting the findings of this study were generated at Bar Ilan University and are available from the corresponding author [S.S.L.] on request.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no competing interest.

Ethical Approval This study was conducted in compliance with ethical standards of the Bar Ilan University IRB ethics committee. The data were recorded in an anonymous fashion.

Informed Consent All participants signed informed consent prior to participation.

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