



DEMOGRAPHIC RESEARCH

A peer-reviewed, open-access journal of population sciences

DEMOGRAPHIC RESEARCH

VOLUME 41, ARTICLE 5, PAGES 103–124

PUBLISHED 10 JULY 2019

<https://www.demographic-research.org/Volumes/Vol41/5/>

DOI: 10.4054/DemRes.2019.41.5

Descriptive Finding

Does the association between children and happiness vary by level of religiosity? The evidence from Israel

J. Jona Schellekens

© 2019 J. Jona Schellekens.

This open-access work is published under the terms of the Creative Commons Attribution 3.0 Germany (CC BY 3.0 DE), which permits use, reproduction, and distribution in any medium, provided the original author(s) and source are given credit.

See <https://creativecommons.org/licenses/by/3.0/de/legalcode>.

Contents

1	Introduction	104
2	Happiness and children	104
3	Data and methods	106
4	Results	112
5	Conclusion	118
6	Acknowledgements	118
	References	119

Does the association between children and happiness vary by level of religiosity? The evidence from Israel

J. Jona Schellekens¹

Abstract

BACKGROUND

There is a widespread belief that parenthood makes people happier. However, research has shown mixed results on the association between happiness and fertility, finding evidence for both positive and negative consequences of having children. The relationship appears to be highly context-specific. This article investigates whether the relationship varies by level of religiosity. Mounting evidence suggests that there is a positive relationship between religiosity and fertility, suggesting that the religious will have a stronger positive relationship between number of children and happiness than those who are not religious.

OBJECTIVE

This study investigates whether the relationship between number of children and overall life satisfaction varies with the level of religiosity.

METHODS

Using a pooled file of the Israel Social Survey for 2002–2016, which includes more than 100,000 respondents, I estimated a linear regression model of overall life satisfaction as a function of the number of children and level of religiosity.

RESULTS

My results show that, contrary to expectations, religious Jews do not have a stronger positive relationship between number of children and overall life satisfaction. Among older respondents, Ultra-Orthodox Jews actually have a weaker relationship between number of children and overall life satisfaction than Jews who are not religious.

CONTRIBUTION

To the best of my knowledge, this is the first study to show that the religious do not necessarily have a stronger positive relationship between number of children and happiness than those who are not religious.

¹ Hebrew University of Jerusalem, Israel. Email: jona@mail.huji.ac.il.

1. Introduction

There is a widespread belief that parenthood makes people happier (Hansen 2012; Kohler and Mencarini 2016). However, research has shown mixed results on the association between happiness and fertility, finding evidence for both positive and negative consequences of having children (e.g., Margolis and Myrskylä 2011). The association appears to vary with factors such as pre-parenthood lifestyle, the perceived importance of marriage and parenthood in society, the level of work–family conflict, the availability of formal childcare services, and welfare support systems (Aassve, Mencarini, and Sironi 2015; Glass, Simon, and Andersson 2016; Matysiak, Mencarini, and Vignoli 2016; Roeters, Mandemakers, and Voorpostel 2016; Vanassche, Swicegood, and Matthijs 2013). This study investigates whether the association between number of children and happiness varies by level of religiosity.

Mounting evidence suggests that there is a positive relationship between religiosity and fertility (e.g., Adsera 2006; Baudin 2015; Hayford and Morgan 2008; Neuman and Ziderman 1986; Okun 2017). It has been posited that when a religion supports pronatalist norms, the religious have a stronger positive relationship between number of children and happiness than those who are not religious (Cranney 2017). This article tests this hypothesis in Israel. Using a pooled and integrated file of the Israel Social Survey for 2002–2016, it shows that religious Jews do not have a stronger positive relationship between number of children and happiness than Jews who are not religious. Among older respondents, Ultra-Orthodox Jews actually have a weaker relationship between number of children and happiness than Jews who are not religious.

The next section reviews the literature on children and happiness with a focus on the moderating role of religiosity and on differences between countries. The third section describes the survey and the variables and methods used in the analysis, and the fourth section presents the results. The fifth and concluding section compares these results with those of previous research and discusses the validity of the results.

2. Happiness and children

Parenthood can be both rewarding and burdensome. To start with the latter, parenthood is associated with increased marital conflict, depression, decreased marital satisfaction, and decreased satisfaction with one's financial situation (e.g., Balbo and Arpino 2016; Kravdal 2014; Nelson, Kushlev, and Lyubomirsky 2014; Pollman-Schult 2014; Pouwels 2011: 64–66).

The extent to which parenthood is burdensome may vary by gender. Women are more often the primary caregiver and experience greater conflict between work and

family. However, as children grow older this conflict may lessen. Thus, it is important to control for stage of the life cycle. When parents grow older, children may care for parents in poor health or provide social protection in old age, as is often the case in developing countries (Margolis and Myrskylä 2011).

There are additional positive effects of having children. One of the most frequently cited reasons for having children is the expectation of emotional reward (Pollman-Schult 2014). Such a reward is expected to be greater for the first child, the motivation for second births being associated with providing companionship for the first child (Kohler, Behrman, and Skytthe 2005). A much less frequently cited reason for having children is to enhance one's status and gain competitive advantage over significant others. In certain contexts, parenthood may increase social esteem (Nauck and Klaus 2007). Moreover, parents that produce many children may gain considerable prestige from their fertility and may have higher status than their less fertile neighbors (Hoffman, Thornton, and Manis 1978: 95). For example, high social status is attached to large families among Ultra-Orthodox Jews (Wieselberg 1992).

Religiosity may modify the relationship between children and happiness. According to one hypothesis (H1), when a religion supports pronatalist norms the religious will experience a stronger positive relationship between the number of children and happiness than those who are not religious (Cranney 2017). Only two previous studies have tested this hypothesis. Cranney (2017) uses data from the United States, whereas van Praag, Romanov, and Ferrer-i-Carbonell (2010) use data from Israel. Both studies conclude that the hypothesis fits the data. However, given the high social status attached to large families in their community, Ultra-Orthodox Jews with small families may be under social pressure to conform (McQuillan 2004). Thus, according to another hypothesis (H2), at lower parities the religious will have a weaker relationship between number of children and happiness than those who are not religious.

I tested these two hypotheses in one country, Israel. Previous research has shown mixed results on the association between happiness and fertility, finding evidence for both positive and negative consequences of having children, depending on the country. Differences between welfare regimes may explain some of these mixed results (Aassve, Goisis, and Sironi 2012). Esping-Andersen (1999) divides welfare regimes into four categories: (1) social democratic (e.g., Denmark, Finland, Norway, and Sweden), with generous and universal entitlements; (2) conservative (e.g., Belgium, France, Germany and Austria), where social policies are linked to earnings and occupation; (3) liberal or anglophone, where services are to a great extent provided by the market, with an emphasis on means testing; and (4) Mediterranean or Southern European (e.g., Greece, Italy, Spain, and Portugal), with strong reliance on family relations and limited public welfare support. Aassve, Goisis, and Sironi (2012) find that parenthood in conservative

and liberal countries contributes less to happiness than in social-democratic countries. They do not find a significant difference between Mediterranean and social-democratic countries. Esping-Andersen (1999) omits Israel from his analysis. However, Gal (2010a, 2010b) has argued that the welfare regime in Israel shows a close affinity to the Mediterranean category.

3. Data and methods

The data for this study is from the Israel Social Survey (ISS). The ISS was designed to provide information on the well-being of the adult population and its living conditions. It is a repeated cross-sectional survey, with data available for the years 2002–2016. The sampling units are individuals in the population register. The respondents were interviewed in their homes. I used a pooled and integrated data set, which is available from the Israel Social Science Data Center and includes 109,160 respondents.

The percentage of large families is relatively high in Israel, making it an interesting place to investigate the association of happiness with number of children. Figure 1 shows trends in the total fertility rate by religion (State of Israel 1990: Table 3.17; and 2018: Table 3.13). In the 1960s the total fertility rate of Muslims reached a record high of more than nine births (Schellekens and Eisenbach 2002). Since then, Muslims have nearly completed the fertility transition. The rate for Jews conceals large differences by level of religiosity. Ultra-Orthodox Jews have more than six children, followed by other religious Jews, who have around four children, and less religious Jews, who have two to three children. With a total fertility rate of about two births, secular Jews are at the upper range of secular groups in more developed societies (Okun 2013).

There is an ongoing debate about whether the Jewish population of Israel is becoming more religious over time (e.g., Weinreb and Blass 2018; Keysar and DellaPergola 2019). According to the ISS, the percentage of Ultra-Orthodox in the adult Jewish population has risen since 2002, whereas that of other religious Jews has remained more or less stable (see Figure 2).

Figure 1: The total fertility rate by religion, Israel 1955–2014

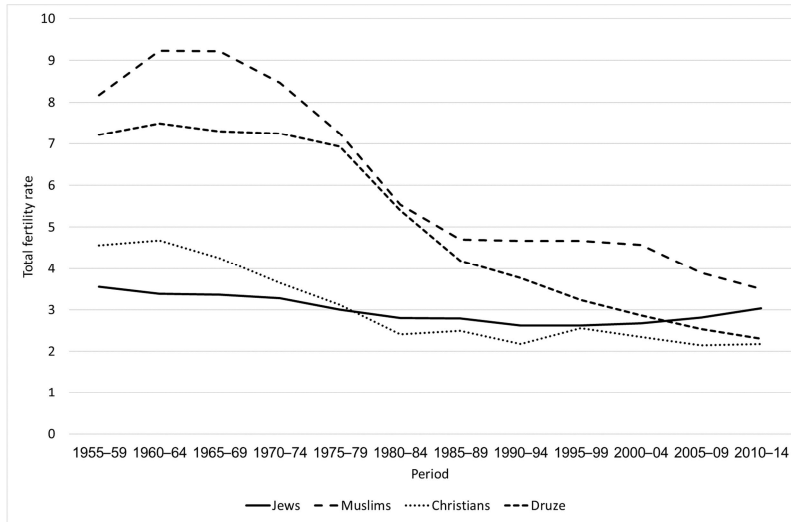
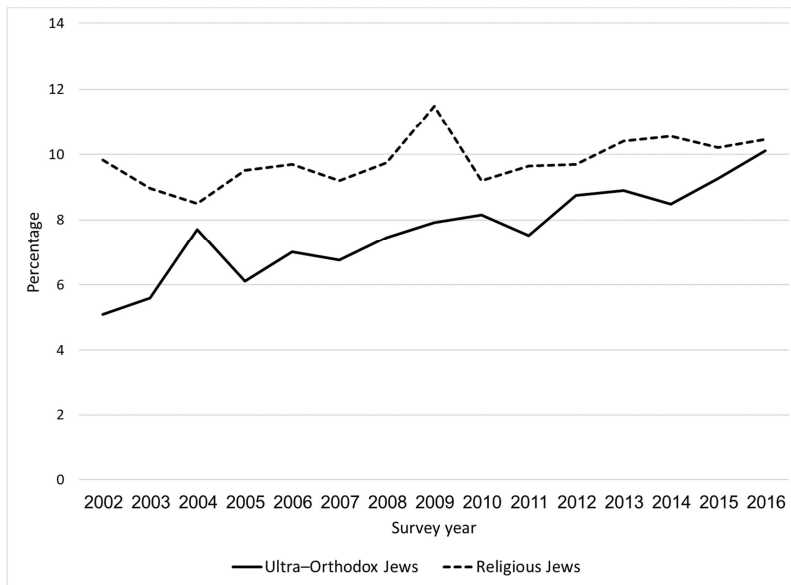


Figure 2: The percentages of Ultra-Orthodox and other religious Jews in the adult Jewish population of Israel, 2002–2016



In colloquial terms, subjective well-being is sometimes labeled ‘happiness.’ Life satisfaction (overall judgment of one’s life) is a component of subjective well-being (Diener 2000). The ISS does not ask about subjective well-being, but only about life satisfaction. Thus, overall life satisfaction (OLS) is the outcome variable in the analysis. Respondents were asked: “Overall, how satisfied are you with your life?” There are four possible answers: ‘very satisfied’ = 4; ‘satisfied’ = 3; ‘not so satisfied’ = 2; or ‘not satisfied at all’ = 1.

The key explanatory variable is the number of children the respondent has. Respondents (including men) were asked, “How many children have been born to you?” In the public use file of the ISS the number of children is coded as: none, one, two, three, four, five, six, and seven or more. The relationship between the number of children and OLS may not be linear (e.g., Kohler, Behrman, and Skytthe 2005; Stanca 2012). In the ISS, average OLS reaches a low with one child and a high with three children, after which it declines again (see Table 1). To cope with this lack of linearity I created seven indicator variables, ‘none’ being the reference category.

Religion may affect OLS (Mallard, Lance, and Michalos 1997). Therefore, I control for religion. There are four religious groups in Israel: Jews, Muslims, Christians, and Druze. Almost all Muslims in Israel belong to the Sunni branch of Islam and speak Palestinian dialects of Arabic. The Druze also speak Arabic, but not all Christians, some of whom are from the former Soviet Union.

The positive association between religiosity and happiness is well documented (e.g., Lim and Putnam 2010; Sander 2017). Levin (2013a, 2013b, 2014) and van Praag, Romanov, and Ferrer-i-Carbonell (2010) report a positive association between religiosity and OLS among Israeli Jews. The ISS asked Jewish respondents to define themselves as ‘Ultra-Orthodox,’ ‘religious,’ ‘traditional but religious,’ ‘traditional but not so religious’ or ‘nonreligious/secular.’ The difference in OLS between the latter three categories is very small. Therefore, I have combined them into one category, which for the sake of simplicity I refer to below as the ‘nonreligious’.

The difference in fertility by level of religiosity among Muslims is relatively small (Okun 2013). Moreover, there are not enough Christians or Druze in the survey to estimate their OLS by level of religiosity. Therefore, I did not model OLS among non-Jews by level of religiosity.

I control for several variables that may explain variation in the association between OLS and children by level of religiosity, such as age, marital status, health, income, education, and employment status.

Table 1: Descriptive statistics for categorical variables and average OLS score for each category

Variable	Percentage	OLS
Overall life satisfaction		
1 = Not satisfied at all	3.1	–
2 = Not so satisfied	11.0	–
3 = Satisfied	54.6	–
4 = Very satisfied	31.3	–
Number of children		
0	25.6	3.19
1	10.7	3.05
2	21.3	3.08
3	20.0	3.19
4	10.2	3.16
5	4.7	3.14
6	2.7	3.10
7+	4.8	3.14
Religion/religiosity		
Secular	36.5	3.13
Traditional but not so religious	20.3	3.10
Traditional but religious	10.7	3.13
Religious Jews	8.3	3.27
Ultra-Orthodox Jews	6.5	3.58
Muslims	12.6	2.98
Christians	3.5	2.95
Druze	1.7	3.26
Age		
20–24	11.6	3.36
25–29	11.2	3.26
30–34	11.0	3.22
35–39	9.9	3.17
40–44	9.2	3.14
49–45	8.4	3.11
50–54	8.1	3.08
55–59	7.5	3.06
60–64	6.3	3.07
65–74	9.0	3.01
75+	7.9	2.88
Marital status		
Single	21.2	3.18
Married	65.0	3.21
Separated/divorced	7.5	2.81
Widowed	6.3	2.76
Sex		
Male	46.7	3.17
Female	53.3	3.12

Schellekens: Does the association between children and happiness vary by level of religiosity?

Table 1: (Continued)

Variable	Percentage	OLS
Educational attainment		
Did not finish high school or unknown	19.7	2.94
Finished high school without diploma	17.1	3.14
High school diploma	19.0	3.24
Non-university diploma	17.8	3.14
First academic degree	16.0	3.26
Second or third academic degree	10.4	3.17
Labor force characteristics		
Employed	62.8	3.22
Unemployed	4.9	2.93
Does not belong to the work force	32.3	3.03
Gross household income		
2,000 NIS or less	29.7	3.01
2,001–4,000 NIS	26.4	3.11
More than 4,000 NIS	29.2	3.26
Unknown / irrelevant	14.7	3.22
Health		
Very good	47.3	3.38
Good	33.0	3.07
Not so good	14.1	2.78
Not good	5.6	2.45
Survey year		
2002	3.4	3.06
2003	6.8	3.06
2004	7.3	3.07
2005	7.1	3.05
2006	6.9	3.07
2007	7.0	3.12
2008	6.9	3.13
2009	7.0	3.16
2010	7.1	3.23
2011	6.7	3.25
2012	6.7	3.17
2013	7.0	3.13
2014	6.7	3.17
2015	6.7	3.24
2016	6.6	3.20
Number of respondents	102,726	

OLS is a function of age. Age is coded as: 20–24, 25–29, 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, 60–64, 65–74, and 75 and above, 20–24 being the reference category. Considerable support has been found for the thesis that marriage is associated with higher levels of personal well-being (e.g., Aassve, Goisis, and Sironi 2012; Soons, Liefbroer, and Kalmijn 2009; Stack and Eshleman 1998; Zimmermann and Easterlin 2006). Marital status is coded as single, married, separated or divorced, and widowed.

There is a strong association between health and happiness (e.g., Ngamaba, Panagioti, and Armitage 2017). In the ISS, respondents were asked, “How is your health, overall?” There are four possible answers: ‘very good,’ ‘good,’ ‘not so good,’ and ‘not good at all,’ ‘very good’ being the reference category. Only a very small number of respondents failed to answer this question. I omitted these from the analysis.

Several previous studies have shown income and happiness to be correlated (e.g., Diener et al. 1993; Frijters, Haisken-DeNew, and Shields 2004). Therefore, I control for gross average household income. Respondents were asked “What was the total gross income of all members of the household from all sources: work, pensions, support payments, rents, etc.?” The answers are in the local currency of New Israeli Shekels (NIS). (In 2002 one US dollar could be exchanged for 4.89 NIS and in 2016 for 3.84 NIS.) The result has been coded as ‘2,000 NIS or less,’ ‘2,001–4,000 NIS,’ ‘More than 4,000 NIS,’ or ‘Unknown/Irrelevant.’ Quite a few respondents did not answer the question about gross household income (see Table 1). Therefore, the analysis includes a variable indicating whether the answer is unknown or irrelevant.

Education is positively related to happiness (e.g., Witter et al. 1984). Respondents were asked “What is the highest certificate or degree that <name of respondent> has received?” I have recoded the answers as follows: ‘Did not finish high school or unknown,’ ‘Finished high school without diploma,’ ‘Finished high school with diploma,’ ‘Non-university diploma,’ ‘First academic degree,’ and ‘Second or third academic degree.’

Past research has shown that unemployment has a large negative effect on happiness (e.g., Clark and Oswald 1994). The ISS includes a variable indicating whether the respondent is ‘Employed,’ ‘Not employed,’ or ‘Does not belong to the labor force.’ Eleven percent of those who did not belong to the labor force were students and 26% were married women below the age of 65. I omitted the small number of respondents who did not answer the question.

Finally, I used year-fixed effects to absorb variation between survey years.

Following Margolis and Myrskylä (2011), I employed standard ordinary least squares regression for ease of interpretability. Following van Praag, Romanov, and Ferrer-i-Carbonell (2010), I added interactions between the number of children and level of religiosity to test the hypothesis that the effect of fertility on OLS varies with the level of religiosity.

The results of the analysis are based on 102,726 questionnaires, due to non-response to several questions. In large samples, tiny effects can become statistically significant. Therefore, I will focus on effect size, using graphical methods.

4. Results

Table 1 presents descriptive statistics of the variables used in the analysis. Table 2 presents regression coefficients of the effect of the number of children and interactions of the number of children with level of religiosity on OLS in models that control for several variables (see first model in Table 2).

Table 2: Linear regression models of overall satisfaction with life

Variable	Coefficients		
	All ages	20–39	40+
Number of children			
0	0.000	0.000	0.000
1	-0.021	-0.031*	0.038*
2	0.034**	-0.007	0.106***
3	0.114***	0.069***	0.183***
4	0.134***	0.105**	0.202***
5	0.161***	0.189**	0.228***
6	0.123***	0.215	0.191***
7+	0.110***	-0.016	0.187***
Religion/religiosity			
Nonreligious Jews	0.000	0.000	0.000
Religious Jews	0.141***	0.133***	0.137**
Ultra-Orthodox Jews	0.364***	0.344***	0.457***
Muslims	-0.164***	-0.216***	0.154***
Christians	-0.121***	-0.162***	0.058
Druze	0.094**	0.041	0.452***
Interactions with religious Jews			
1	0.025	0.018	0.021
2	-0.038	0.008	-0.073
3	-0.097***	-0.083*	-0.092
4	-0.054*	-0.051	-0.051
5	-0.053	-0.061	-0.056
6	-0.043	-0.055	-0.047
7+	-0.028	0.246	-0.035
Interactions with Ultra-Orthodox			
1	-0.027	-0.021	-0.189
2	-0.065*	-0.009	-0.291**
3	-0.077*	-0.026	-0.243**
4	-0.106**	-0.083	-0.224**
5	-0.111**	-0.102	-0.262**
6	-0.076	-0.149	-0.195*
7+	0.035	0.167	-0.062

Table 2: (Continued)

Variable	Coefficients		
	All ages	20–39	40+
Interactions with Muslims			
1	0.019	0.033	-0.191**
2	0.025	0.054*	-0.184**
3	0.033	0.066*	-0.338***
4	0.029	0.028	-0.249***
5	0.048	-0.067	-0.210***
6	0.131***	-0.027	-0.153**
7+	0.240***	-0.120	-0.037
Interactions with Christians			
1	0.073*	0.039	-0.048
2	-0.013	-0.036	-0.158**
3	0.029	0.110	-0.156*
4	0.073	0.381**	-0.127*
5	0.079	-0.079	-0.081
6	0.140	-0.418	-0.012
7+	0.393***	0.160	0.222*
Interactions with Druze			
1	0.059	0.108	-0.405*
2	0.122*	0.245***	-0.426**
3	0.048	-0.002	-0.203
4	0.121*	0.072	-0.196
5	0.026	-0.280	-0.263*
6	0.076	0.450	-0.292**
7+	0.307***	0.028	-0.041
Age			
20–24	0.000	0.000	
25–29	-0.154***	-0.147***	
30–34	-0.237***	-0.220***	
35–39	-0.285***	-0.260***	
40–44	-0.302***		0.000
49–45	-0.286***		0.015
50–54	-0.274***		0.028**
55–59	-0.268***		0.034**
60–64	-0.229***		0.075***
65–74	-0.190***		0.121***
75+	-0.146***		0.173***
Marital status			
Single	-0.176***	-0.192***	-0.171***
Married	0.000	0.000	0.000
Separated/divorced	-0.268***	-0.295***	-0.259***
Widowed	-0.223***	-0.207*	-0.226***
Sex			
Male	0.000	0.000	0.000
Female	0.008	-0.010	0.023***

Schellekens: Does the association between children and happiness vary by level of religiosity?

Table 2: (Continued)

Variable	Coefficients		
	All ages	20–39	40+
Educational attainment			
Did not finish high school or unknown	0.000	0.000	0.000
Finished high school (no diploma)	0.068***	0.070***	0.080***
High school diploma	0.103***	0.132***	0.078***
Non-university diploma	0.069***	0.087***	0.064***
First degree	0.104***	0.124***	0.103***
Second or third degree	0.088***	0.153***	0.069***
Labor force characteristics			
Employed	0.000	0.000	0.000
Unemployed	-0.164***	-0.147***	-0.185***
Does not belong to the work force	0.036***	0.057***	0.014
Gross household income			
2,000 NIS or less	0.000	0.000	0.000
2,001–4,000 NIS	0.084***	0.061***	0.099***
More than 4,000 NIS	0.179***	0.131***	0.208***
Unknown / irrelevant	0.123***	0.108***	0.131***
Health			
Very good	0.000	0.000	0.000
Good	-0.287***	-0.297***	-0.275***
Not so good	-0.542***	-0.567***	-0.527***
Not good	-0.865***	-0.827***	-0.854***
Survey year			
2002	0.000	0.000	0.000
2003	-0.023	-0.044*	-0.008
2004	-0.013	-0.028	-0.004
2005	-0.026	-0.046*	-0.014
2006	-0.012	-0.015	-0.013
2007	0.027*	0.026	0.021
2008	0.036**	0.027	0.038*
2009	0.045**	0.045*	0.038*
2010	0.092***	0.089***	0.087***
2011	0.106***	0.090***	0.112***
2012	0.017	0.023	0.003
2013	0.007	-0.016	0.016
2014	0.016	-0.005	0.023
2015	0.061***	0.024	0.082***
2016	0.029*	-0.013	0.049**
Constant	3.373***	3.416***	2.973***
Number of respondents	102,726	44,932	57,794
R ²	0.214	0.177	0.220

Note: * p < .05 ** p < .01 *** p < .001.

Besides the variables that are the focus of the analysis, the models include controls for age, marital status, education, labor force characteristics, income, health, and survey year. More than any other control variable, adding age to the model modifies the

coefficients of the variables indicating the number of children, followed by adding marital status and socioeconomic variables (education, labor-force characteristics, and income). Adding health and survey year to the model only modifies the coefficients to a small extent (nested models not shown).

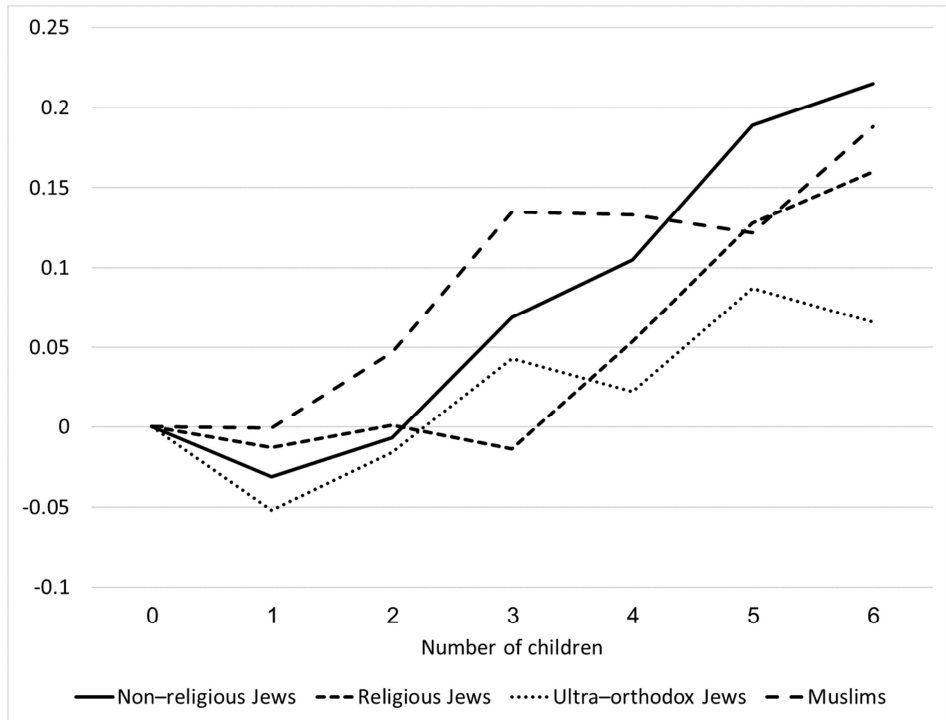
A preliminary analysis included two variables indicating whether a Jewish respondent was ‘traditional but religious’ or ‘traditional but not so religious.’ However, none of the interactions of these variables with the number of children had a significant effect (result not shown). Therefore, I combined these two categories with that of secular Jews.

The relationship between OLS and number of children may change with stage of the life cycle, because the demands of parenthood change as children mature (Margolis and Myrskylä 2011: 16–17). Therefore, I estimated separate models for two broad age groups: 20–39 and above 40 (see second and third models in Table 2). Note that in all the models the main effect represents the effect of the number of children on OLS among the omitted category, i.e., Jews who are not religious. To obtain the effect of the number of children on OLS among other religious groups, the interaction effect needs to be added. I will only discuss the results for the second and third models.

OLS among nonreligious Jews aged 20–39 decreases after the first child, but increases afterwards with number of children. Margolis and Myrskylä (2011: Figure 7a) observe a similar decline after the first child in other countries. However, the relationship among younger nonreligious Jews after the second child does not resemble that observed in other countries (see second model in Table 2).

To facilitate the comparison between religious groups, Figure 3 plots the effect of the number of children on OLS by level of religiosity among younger respondents using the coefficients reported in the second model in Table 2. I have omitted respondents with seven or more children, because neither the main effect nor any of the interactions is significant. Contrary to H1, Figure 3 shows that Ultra-Orthodox and other religious Jews do not have a stronger positive relationship between the number of children and OLS than nonreligious Jews. The relationship is actually weaker for three children or more. However, only one interaction effect is significant. Figure 3 also includes Muslims. Two or three children contribute significantly more to the OLS of Muslims.

Figure 3: The net effect of number of children on overall life satisfaction by religion and level of religiosity among respondents at age 20–39, Israel 2002–2016

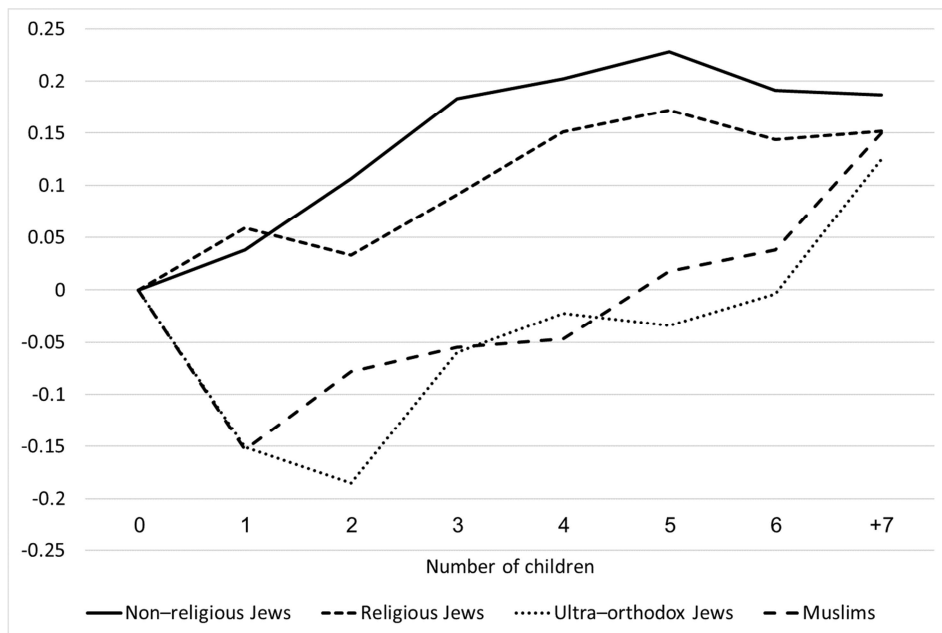


At older ages (40 and above) the association between number of children and OLS is positive among nonreligious Jews (see third model in Table 2). Nonreligious Jews with one child are slightly more satisfied than those without a child. Each child adds to their OLS, reaching a peak with five children. The relationship among nonreligious Jews above age 40 more closely resembles that observed by Margolis and Myrskylä (2011: Figure 7b) in Mediterranean (and former socialist) countries than in social democratic, liberal, or conservative countries.

Figure 4 plots the effect of the number of children on OLS by level of religiosity among older respondents using the coefficients reported in the third model in Table 2. The differences are much more pronounced than among younger respondents. Contrary to H1, it shows that Ultra-Orthodox and other religious Jews do not have a stronger positive relationship between the number of children and OLS than nonreligious Jews.

None of the interactions for religious Jews are significant, suggesting that there are no major differences between religious and nonreligious Jews. However, the relationship among Ultra-Orthodox Jews is weaker than that among nonreligious Jews. The difference with nonreligious Jews is significant for two to six children. The hypothesis that there is more social pressure to continue childbearing among Ultra-Orthodox Jews (H2) is consistent with this finding. As with Ultra-Orthodox Jews, children also contribute less to the OLS of older Muslims. The interaction effect is significant up to the sixth child. After the first child, each child adds to their OLS, perhaps because children care for parents in poor health or provide social protection in old age (Margolis and Myrskylä 2011).

Figure 4: The net effect of number of children on overall life satisfaction by religion and level of religiosity among respondents aged 40+, Israel 2002–2016



5. Conclusion

Theory predicts that when a religion supports pronatalist norms, then the religious will experience a stronger positive relationship between number of children and happiness than those who are not religious (Cranney 2017). Using the General Social Survey for 1972–2012, Cranney (2017) finds that in the United States the negative association between children and happiness is lessened for the religious. The religious population in his study consists mostly of Christians. Using the 2006 Israel Social Survey, van Praag, Romanov, and Ferrer-i-Carbonell (2010) investigate variation in the relationship between happiness and number of children by level of religiosity among Jews. They conclude that “secular families are less happy than orthodox families with an equal number of children” (van Praag, Romanov, and Ferrer-i-Carbonell 2010: 1017). Using a much larger pooled and integrated file of the Israel Social Survey for 2002–2016, this article shows that children do not contribute more to the overall life satisfaction of religious Jews.

Religious differences in the contribution of children to overall life satisfaction are largest among older respondents. In particular, small families contribute less to the overall life satisfaction of older Ultra-Orthodox Jews than they do to that of older nonreligious Jews. The high social status attached to large families among Ultra-Orthodox Jews may explain this. This could also explain why religious differences are largest among older respondents. At this stage of the life cycle it is too late to close the gap between ideal and actual family size.

However, there are also caveats. Like most previous research, I used a cross-sectional approach. Thus, my results may suffer from potential bias caused by endogeneity of childbearing behavior (e.g., Baetschmann, Staub, and Studer 2016; Cetre, Clark, and Senik 2016; Kravdal 2014; Le Moglie, Mencarini, and Rapallini 2015; Parr 2010). To overcome this drawback, Kohler, Behrman, and Skytthe (2005) conducted a twin study, finding that becoming a parent contributes positively to parents’ OLS. Other coefficients may also be biased because of reverse causality; for example, between marital status and OLS (e.g., Stutzer and Frey 2006) and between health and OLS (e.g., Diener et al. 2017).

6. Acknowledgements

The author wishes to thank the three anonymous reviewers for their helpful comments. An earlier version was presented at the Dutch Demography Day, Utrecht, November 2018.

References

- Aassve, A., Goisis, A., and Sironi, M. (2012). Happiness and childbearing across Europe. *Social Indicators Research* 108(1): 65–86. doi:10.1007/s11205-011-9866-x.
- Aassve, A., Mencarini, L., and Sironi, M. (2015). Institutional change, happiness, and fertility. *European Sociological Review* 31(6): 749–765. doi:10.1093/esr/jcv073.
- Adsera, A. (2006). Marital fertility and religion in Spain, 1985 and 1999. *Population Studies* 60(2): 205–221. doi:10.1080/00324720600684817.
- Baetschmann, G., Staub, K.E., and Studer, R. (2016). Does the stork deliver happiness? Parenthood and life satisfaction. *Journal of Economic Behavior and Organization* 130: 242–260. doi:10.1016/j.jebo.2016.07.021.
- Balbo, N. and Arpino, B. (2016). The role of family orientations in shaping the effect of fertility on subjective well-being: A propensity score matching approach. *Demography* 53(4): 955–978. doi:10.1007/s13524-016-0480-z.
- Baudin, T. (2015). Religion and fertility: The French connection. *Demographic Research* 32(13): 397–420. doi:10.4054/DemRes.2015.32.13.
- Cetre, S., Clark, A.E., and Senik, C. (2016). Happy people have children: Choice and self-selection into parenthood. *European Journal of Population* 32(3): 445–473. doi:10.1007/s10680-016-9389-x.
- Clark, A.E. and Oswald, A. (1994). Unhappiness and unemployment. *Economic Journal* 104(424): 648–659. doi:10.2307/2234639.
- Cranney, S. (2017). Is there a stronger association between children and happiness among the religious? Religion as a moderator in the fertility/happiness relationship. *Journal of Happiness Studies* 18(6): 1713–1727. doi:10.1007/s10902-016-9798-x.
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist* 55(1): 34–43. doi:10.1037//0003-066X.55.1.34.
- Diener, E., Pressman, S.D., Hunter, J., and Delgado-Chase, D. (2017). If, why, and when subjective well-being influences health, and future needed research. *Applied Psychology: Health and Well-Being* 9(2): 133–167. doi:10.1111/aphw.12090.

- Diener, E., Sandvik, E., Seidlitz, L., and Diener, M. (1993). The relationship between income and subjective well-being: Relative or absolute? *Social Indicators Research* 28(3): 195–223. doi:10.1007/BF01079018.
- Esping-Andersen, G. (1999). *Social foundations of postindustrial economies*. Oxford: Oxford University Press. doi:10.1093/0198742002.001.0001.
- Frijters, P., Haisken-DeNew, J.P., and Shields, M.A. (2004). Money does matter! Evidence from increasing real income and life satisfaction in East Germany following reunification. *American Economic Review* 94(3): 730–740. doi:10.1257/0002828041464551.
- Gal, J. (2010a). Is there an extended family of Mediterranean welfare states? *Journal of European Social Policy* 20(4): 283–300. doi:10.1177/0958928710374374.
- Gal, J. (2010b). Exploring the extended family of Mediterranean welfare states, or: Did Beveridge and Bismarck take a Mediterranean cruise together? In: Ajzenstadt, M. and Gal, J. (eds.). *Children, gender and families in Mediterranean welfare states*. Dordrecht: Springer: 77–101. doi:10.1007/978-90-481-8842-0_4.
- Glass, J., Simon, R.W., and Andersson, M.A. (2016). Parenthood and happiness: Effects of work-family reconciliation policies in 22 OECD countries. *American Journal of Sociology* 122(3): 886–929. doi:10.1086/688892.
- Hansen, T. (2012). Parenthood and happiness: A review of folk theories versus empirical evidence. *Social Indicators Research* 108(1): 29–64. doi:10.1007/s11205-011-9865-y.
- Hayford, S.R. and Morgan, S.P. (2008). Religiosity and fertility in the United States: The role of fertility intentions. *Social Forces* 86(3): 1163–1188. doi:10.1353/sof.0.0000.
- Hoffman, L.W., Thornton, A., and Manis, J.D. (1978). The value of children to parents in the United States. *Journal of Population* 1(2): 91–131. doi:10.1007/BF01277597.
- Keysar, A. and DellaPergola, S. (2018). Demographic and religious dimensions of Jewish identification in the US and Israel: Millennials in generational perspective. *Journal of Religion and Demography* 6(1): 149–188. doi:10.1163/2589742X-00601004.
- Kohler, H.-P. and Mencarini, L. (2016). The parenthood happiness puzzle: An introduction to the special issue. *European Journal of Population* 32(3): 327–338. doi:10.1007/s10680-016-9392-2.

- Kohler, H.-P., Behrman, J.R., and Skytthe, A. (2005). Partner + children = happiness? The effects of partnerships and fertility on well-being. *Population and Development Review* 31(3): 407–445. doi:10.1111/j.1728-4457.2005.00078.x.
- Kravdal, Ø. (2014). The estimation of fertility effects on happiness: Even more difficult than usually acknowledged. *European Journal of Population* 30(3): 263–290. doi:10.1007/s10680-013-9310-9.
- Le Moglie, M., Mencarini, L., and Rapallini, C. (2015). Is it just a matter of personality? On the role of subjective well-being in childbearing behavior. *Journal of Economic Behavior and Organization* 117: 453–475. doi:10.1016/j.jebo.2015.07.006.
- Levin, J. (2013a). Religious observance and well-being among Israeli Jewish adults: Findings from the Israel Social Survey. *Religions* 4(4): 469–484. doi:10.3390/rel4040469.
- Levin, J. (2013b). Religious behavior, health, and well-being among Israeli Jews: Findings from the European Social Survey. *Psychology of Religion and Spirituality* 5(4): 272–282. doi:10.1037/a0032601.
- Levin, J. (2014). Religion and happiness among Israeli Jews: Findings from the ISSP Religion III Survey. *Journal of Happiness Studies* 15(3): 593–611. doi:10.1007/s10902-013-9437-8.
- Lim, C. and Putnam, R.D. (2010). Religion, social networks, and life satisfaction. *American Sociological Review* 75(6): 914–933. doi:10.1177/0003122410386686.
- Mallard, A.G.C., Lance, C.E., and Michalos, A.C. (1997). Culture as a moderator of overall life satisfaction: Life facet satisfaction relationships. *Social Indicators Research* 40(3): 259–284. doi:10.1023/A:1006812301761.
- Margolis, R. and Myrskylä, M. (2011). A global perspective on happiness and fertility. *Population and Development Review* 37(1): 29–56. doi:10.1111/j.1728-4457.2011.00389.x.
- Matysiak, A., Mencarini, L., and Vignoli, D. (2016). Work–family conflict moderates the relationship between childbearing and subjective well-being. *European Journal of Population* 32(3): 355–379. doi:10.1007/s10680-016-9390-4.
- McQuillan, K. (2004). When does religion influence fertility? *Population and Development Review* 30(1): 25–56. doi:10.1111/j.1728-4457.2004.00002.x.

Schellekens: Does the association between children and happiness vary by level of religiosity?

- Nauck, B. and Klaus, D. (2007). The varying value of children: Empirical results from eleven societies in Asia, Africa and Europe. *Current Sociology* 55(4): 487–503. doi:10.1177/0011392107077634.
- Nelson, S.K., Kushlev, K., and Lyubomirsky, S. (2014). The pains and pleasures of parenting: When, why, and how is parenthood associated with more or less well-being? *Psychological Bulletin* 140(3): 846–895. doi:10.1037/a0035444.
- Neuman, S. and Ziderman, A. (1986). How does fertility relate to religiosity: Survey evidence from Israel. *Sociology and Social Research* 70(2): 178–180.
- Ngamaba, K.H., Panagioti, M., and Armitage, C.J. (2017). How strongly related are health status and subjective well-being? Systematic review and meta-analysis. *European Journal of Public Health* 27(5): 879–885. doi:10.1093/eurpub/ckx081.
- Okun, B.S. (2013). Fertility and family behavior in Israel: Diversity, change and stability. *Demographic Research* 28(17): 457–504. doi:10.4054/DemRes.2013.28.17.
- Okun, B.S. (2017). Religiosity and fertility: Jews in Israel. *European Journal of Population* 33(4): 475–507. doi:10.1007/s10680-016-9409-x.
- Parr, N. (2010). Satisfaction with life as an antecedent of fertility: Partner + happiness = children? *Demographic Research* 22(21): 635–662. doi:10.4054/DemRes.2010.22.21.
- Pollman-Schutt, M. (2014). Parenthood and life satisfaction: Why don't children make people happy? *Journal of Marriage and Family* 76(2): 319–336. doi:10.1111/jomf.12095.
- Pouwels, B.J. (2011). Work, family, and happiness: Essays on interdependencies within families, life events, and time allocation decisions [PhD thesis]. Utrecht: Utrecht University.
- Roeters, A., Mandemakers, J.J., and Voorpostel, M. (2016). Parenthood and well-being: The moderating role of leisure and paid work. *European Journal of Population* 32(3): 381–401. doi:10.1007/s10680-016-9391-3.
- Sander, W. (2017). Religion, religiosity, and happiness. *Review of Religious Research* 59(2): 251–262. doi:10.1007/s13644-017-0285-6.
- Schellekens, J. and Eisenbach, Z. (2002). The predecline rise in Israeli Moslem fertility. *Economic Development and Cultural Change* 50(3): 541–555. doi:10.1086/342264.

- Soons, J.P.M., Liefbroer, A.C., and Kalmijn, M. (2009). The long-term consequences of relationship formation for subjective well-being. *Journal of Marriage and Family* 71(5): 1254–1270. doi:10.1111/j.1741-3737.2009.00667.x.
- Stack, S. and Eshleman, J.R. (1998). Marital status and happiness: A 17-nation study. *Journal of Marriage and Family* 60(2): 527–536. doi:10.2307/353867.
- Stanca, L. (2012). Suffer the little children: Measuring the effects of parenthood on well-being worldwide. *Journal of Economic Behavior and Organization* 81(3): 742–750. doi:10.1016/j.jebo.2010.12.019.
- State of Israel (1990). Statistical abstract of Israel 41. Jerusalem: Central Bureau of Statistics.
- State of Israel (2018). Statistical abstract of Israel 69. Jerusalem: Central Bureau of Statistics.
- Stutzer, A. and Frey, B.S. (2006). Does marriage make people happy, or do happy people get married? *Journal of Socio-Economics* 35(2): 326–347. doi:10.1016/j.socec.2005.11.043.
- Van Praag, B.M.S., Romanov, D., and Ferrer-i-Carbonell, A. (2010). Happiness and financial satisfaction in Israel: Effects of religiosity, ethnicity, and war. *Journal of Economic Psychology* 31(6): 1008–1020. doi:10.1016/j.joep.2010.08.008.
- Vanassche, S., Swicegood, G., and Matthijs, K. (2013). Marriage and children as a key to happiness? Cross-national differences in the effects of marital status and children on well-being. *Journal of Happiness Studies* 14(2): 501–524. doi:10.1007/s10902-012-9340-8.
- Weinreb, A. and Blass, N. (2018). Trends in religiosity among the Jewish population in Israel. Jerusalem: Taub Center for Social Policy Studies in Israel (Policy Paper 02.2018). http://taubcenter.org.il/wp-content/files_mf/trendsinreligiosity.pdf.
- Wieselberg, H. (1992). Family therapy and Ultra-Orthodox Jewish families: A structural approach. *Journal of Family Therapy* 14(3): 305–329. doi:10.1046/j..1992.00462.x.
- Witter, R.A., Okun, M.A., Stock, W.A., and Haring, M.J. (1984). Education and subjective well-being: A meta-analysis. *Educational Evaluation and Policy Analysis* 6(2): 165–173. doi:10.3102/01623737006002165.
- Zimmermann, A. and Easterlin, R.A. (2006). Happily ever after? Cohabitation, marriage, divorce and happiness in Germany. *Population and Development Review* 32(3): 511–528. doi:10.1111/j.1728-4457.2006.00135.x.

Schellekens: Does the association between children and happiness vary by level of religiosity?