

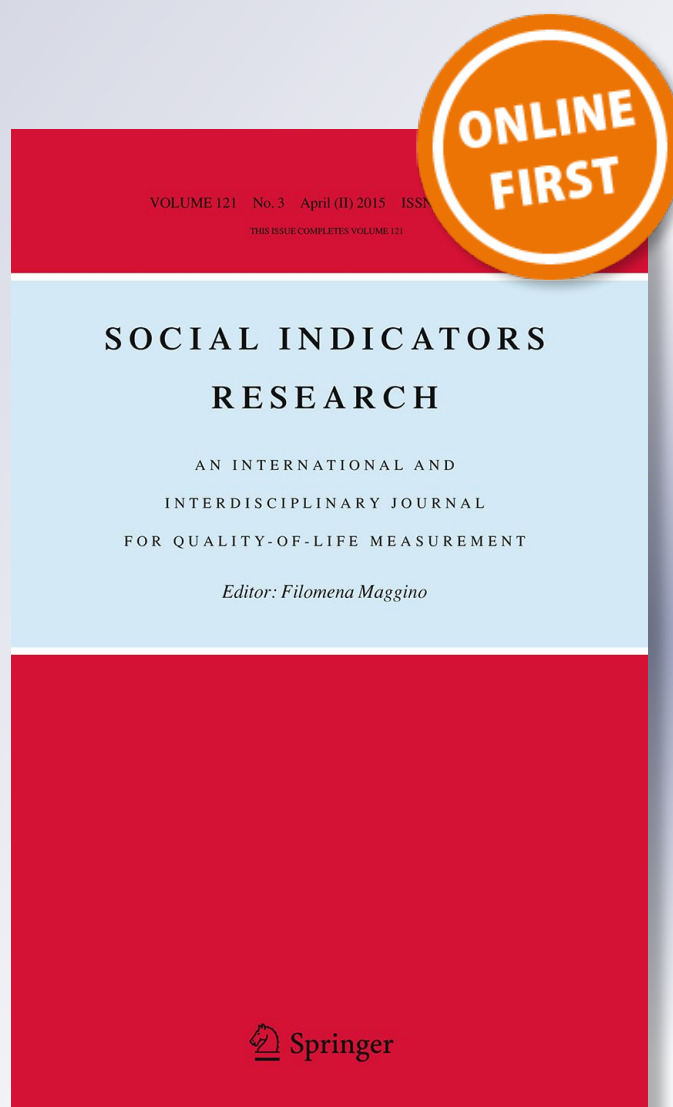
# Quality of Life in Intentional Communities

**Bjørn Grinde, Ragnhild Bang Nes, Ian F. MacDonald & David Sloan Wilson**

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## Quality of Life in Intentional Communities

Bjørn Grinde<sup>1</sup>  · Ragnhild Bang Nes<sup>1</sup> · Ian F. MacDonald<sup>2</sup> · David Sloan Wilson<sup>2</sup>

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**Abstract** The present study was initiated to investigate levels and predictors of wellbeing among inhabitants of intentional communities (ICs). An anonymous, Internet-based questionnaire was distributed to US and Canadian ICs. Responses were obtained from 913 members. Wellbeing was measured by the widely used satisfaction with life scale (SWLS). Hierarchical linear regression analyses were run to test the predictive validity of *Social support*, *Identity fusion*, *Meaning in life*, *Community satisfaction* and *Life change*, and *Religious activity* above and beyond demographic variables and personality traits. Mean scores on the SWLS were estimated to 5.27 and 5.47 (1–7 scale) for men and women, respectively. The full model explained 41.4% of the variance for men and 38.2% for women. Personality explained 13.4 (men) and 14.4% (women) of the variation, while demographic variables only had a minor impact. Overall, presence of *Meaning in life* and *Social support* were the most important predictors. The IC inhabitants reported wellbeing on par with the highest scores previously published. The findings support the contention that sustainability, in the form of a communal lifestyle of low ecological footprint, may be promoted without forfeiting wellbeing.

**Keywords** Intentional communities · Life satisfaction · Sustainability · Meaning in life · Social support · Ecovillages

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✉ Bjørn Grinde  
bjgr@fhi.no

Ragnhild Bang Nes  
Ragnhild.BangNes@fhi.no

Ian F. MacDonald  
ifmacdonald@gmail.com

David Sloan Wilson  
dwilson@binghamton.edu

<sup>1</sup> Norwegian Institute of Public Health, Oslo, Norway

<sup>2</sup> Binghamton University, Binghamton, USA

## 1 Introduction

It is increasingly accepted that wellbeing, and not solely economic growth, should be given priority when considering how to improve society (Stiglitz et al. 2009; Seaford 2011). More than 40 nations use surveys that assess subjective wellbeing to generate information for policymaking (Diener et al. 2015). The term *sustainable happiness* seems particularly relevant in this context, as it refers to the pursuit of happiness that does not exploit other people, the environment, or future generations (O'Brien 2008). In order to progress in the direction of wellbeing and sustainability, research that elucidates relevant factors is warranted.

As it is difficult to set up appropriate experiments on human subjects, experiments that humans instigate themselves are particularly useful. The *Intentional Community* (IC) movement is an interesting phenomenon to study in this regard. ICs are close-knit, small-scale communities formed around secular or religious ideas as to how one ought to live. They typically have a shared lifestyle (e.g., common spaces and communal meals), shared cultural elements (e.g., beliefs and commitment to cooperation), and a common purpose (e.g., ecofriendly life or worshipping a god). IC members are expected to score high, compared to the general population, on four relevant parameters: (1) a strong social network; (2) a shared “meaning in life” (the intentionality the community subscribes to); (3) closeness to nature; and (4) a low ecological footprint. The latter is considered a core measure of sustainability (Kitzes and Wackernagel 2009). A social network (and concomitant social support) is generally assumed a key parameter in predicting subjective wellbeing (Layard 2005; Gallagher and Vella-Brodrick 2008; Reyes-Garcia et al. 2009). A closely related concept, *social capital*, is likewise a consistent and widely valued indicator of the quality of a society (Perkins and Long 2002). A sense of purpose, or meaning in life, is another important factor for wellbeing (Wong 2013; Grouden and Jose 2015), as is apparently proximity to nature (Grinde and Patil 2009; Daams and Veneri 2016). On the other hand, ICs are also prone to problems such as economical shortcomings, lack of privacy, disconnection from the surrounding society, sectarianism, and a demand for conformity. Wellbeing is related to freedom, agency and autonomy, and the extent to which a community enables free choice has been shown to have a major impact on happiness (Ingelhart et al. 2008). The typical IC life style may therefore compromise wellbeing. Moreover, although riches do not appreciably improve the score on wellbeing tests, (relative) poverty does decrease the score (Kahneman and Deaton 2010); another factor that might act in disfavor of IC members.

A few previous studies have looked at how life in ICs impact on mental health. A comparison of ICs and other neighborhoods around Burlington (USA) found that IC residents had a higher quality of life due to improved human, social, and natural capital (Mulder et al. 2006). In another study, women in kibbutz reported fewer depressive symptoms (Blumstein et al. 2004). Yet another study reported a lower prevalence of psychoses, but a higher prevalence of “neurotic” disorders among Hutterites (a very strict Christian group) compared to the surrounding population (Nimgaonkar et al. 2000). These previous studies were based on small samples and focused on particular types of communities. In the present investigation, we sought to expand on previous findings by conducting a more extensive survey. As personality features tend to be closely associated with wellbeing, and might contribute to selection into communal living, personality was accounted for in the analyses along with demographic variables including income and education.

The main rationale of the present investigation was to investigate levels of wellbeing among IC members and to examine which particular features, or lifestyle factors predict wellbeing in these communities. None of the previous studies has been based on a comparatively large sample of individuals or variety of communities. Moreover, the present study focused on a number of relevant predictors of wellbeing.

## 2 Participants and Procedure

The present investigation was based on an anonymous, Internet-based questionnaire employing the Qualtrics platform. Invitation to participate was sent to contact persons in various communities, either from the investigators, or via the *Fellowship for Intentional Community* (FIC <http://www.ic.org/>). The contact persons responded to the investigators for registration and to obtain a link to the survey, which they passed on to adult members. A monetary lottery was set up to encourage participation. Three prizes (US\$ 3000, 2000, 1000) were drawn among participants, and awarded to their community. The recruitment procedure focused on (but was not restricted to) well-established communities (i.e., communities that had survived for 5 years or more) in North America with at least 10 members. Communities that did not have at least one communal meal weekly were excluded as we considered these communities to less likely reflect the collective life-style we intended to probe.

The request to participate was sent to some 280 communities. Altogether 1009 individuals, from 174 communities responded. The recruitment strategy involved direct communication with contact persons in the various communities, as well as advertisement in the ICs Community magazine with information for relevant communities to contact us. The responding contact persons were subsequently asked to distribute the invitation to participate to members of their community. As we do not know how many actually received an invitation, calculation of a response rate was not possible. The present analyses are restricted to the 913 respondents from communities ( $n = 148$ ) within the US ( $n = 875$ ) or Canada ( $n = 38$ ). The survey was completed between August and November 2014. For participants who did not endorse all the items on relevant scales, the Expectation Maximization imputation option in the Statistical Package for the Social Sciences (SPSS) was used to impute missing values, using the remaining items as matching variables. Imputation increased the sample very modestly (1–2%). Missing data on gender ( $n = 61$ ) were not imputed, and one transgender individual was omitted from the analyses. Complete data were available from 849 individuals including 265 men and 584 women aged 18–91 years.

The investigation was approved by the Human Subjects Research Review Office at Binghamton University (Protocol #3316-14).

## 3 Measures

*Life satisfaction* was measured with the satisfaction with life scale (SWLS) (Diener et al. 1985). This five-item scale measures people's perception of their life as a whole on a 1–7 Likert scale (1 = Completely disagree, 7 = Completely agree). The SWLS has been used extensively worldwide, and shows good psychometric properties including validity, reliability and adequate invariance across gender and age (Diener et al. 1985; Lucas et al. 1996; Clench-Aas et al. 2011). Cronbach's alpha was estimated to be 0.84 in the present

sample, and individual mean scores were used in the analyses. For respondents who had not endorsed all items, the EM option in the SPSS was used to impute missing values.

*Age* was used as a continuous variable. *Educational level* was coded in 6 categories (from high school to doctoral degree). One respondent without completed high school was included in the first category. Household income was coded in 5 categories. Marital status included: *Single*, *Married/partnered* and *Divorced/widowed*. Parental status was categorized as a dichotomous variable (i.e., children/no children). See Table 1 for demographic information. Membership in a religious congregation, was scored “yes”/“no”.

*Personality* was measured by the Ten-Item Personality Inventory (TIPI) (Gosling et al. 2003). TIPI offers a brief measure of the Big-Five personality domains, which include *Emotional stability*, *Extraversion*, *Openness*, *Agreeableness*, and *Conscientiousness*. Responses were rated on a 7-point scale (1 = Disagree strongly, 7 = Agree strongly). The TIPI was developed for research where personality is not the primary topic, but shows good psychometric qualities given the brevity of the scale (Gosling et al. 2003; Romero et al. 2012).

**Table 1** Demographic characteristics, offered as percentage (except for age)

	Total sample ( $n = 849$ )	Women ( $n = 584$ )	Men ( $n = 265$ )	$p^2$
Age [Mean (SD)]	53 (16)	53 (16)	53 (16)	
Education				
High school	1.9	2.0	1.1	
Professional	4.2	4.3	4.1	
Some college	9.3	6.8	14.7	*
Bachelor	30.9	30.6	31.6	
Master	39.4	41.4	35.0	
Ph.D.	14.3	14.7	13.5	
Household income <sup>1</sup>				
<\$24,999	23.5	24.5	21.4	
\$25,000–49,999	20.7	18.5	25.6	*
\$50,000–74,999	21.8	21.7	22.1	
\$75,000–99,999	12.5	12.9	11.8	
>100,000	21.4	22.5	19.1	
Marital status				
Single	18.2	18.2	18.4	
Married/partnered	62.1	59.9	66.9	
Divorced/widowed	19.6	21.9	14.7	*
Children				
No	33.7	32.3	36.8	
Yes	66.3	67.7	63.2	
Member of religious congregation				
No	61.8	61.5	62.4	
Yes	38.2	38.5	37.6	

<sup>1</sup> This parameter is somewhat problematic in that some communities practice shared income

<sup>2</sup> Gender difference, \* significant at  $p < 0.05$

*Meaning* was measured by The Meaning in Life Questionnaire (MLQ) (Steger et al. 2006). This 10-item scale consists of two separate subscales assessing either *Meaning presence* (MLQ-P) or *Meaning searching* (MLQ-S). The two-factor structure has been replicated using confirmatory factor analyses in multiple samples (Steger et al. 2008b). The MLQ-P items measure the extent to which respondents feel their lives are meaningful, whilst the MLQ-S items assess the extent to which they are actively seeking meaning. The responses are given on a 1–7 scale (1 = Absolutely untrue, 7 = Absolutely true) to yield summed scores from 7–35. Cronbach's alphas in the present sample were estimated to 0.90 (MLQ-P) and 0.91 (MLQ-S).

*Social support* was measured by The Interpersonal Support Evaluation List-12 (ISEL-12) (Cohen et al. 1985) which measures perceived availability of specific supportive functions on a 0–3 scale (0 = Definitely false, 3 = Definitely true). Sum scores (range 0–36) were used according to convention. *Identity fusion* was measured using the 7-items Fusion Scale (Gomez et al. 2011). Identity fusion entails a visceral feeling of oneness with the group, and reflects a unique construct that differs from group identification, with the fused forming strong relational ties and deep bonds with other group members (Gomez et al. 2011). Responses were scored on a 1–6 Likert scale (1 = Strongly disagree, 6 = Strongly agree), and the mean score used in the analyses. Cronbach's alpha was estimated to 0.84.

In addition to these established instruments, the respondents were asked how long they had been associated with their present community. The results were converted to months and used as a continuous variable (*Tenure*). They were also asked how satisfied they were with their community (*Community satisfaction*), and how their lives had changed after they joined (*Life change*). Responses to these two variables were given on 7-point scales from respectively “Very dissatisfied” to “Very satisfied” (satisfaction) and “Much worse” to “Much better” (change). Lastly, *Religious activity* was measured by the following three questions (1) “participates in religious or spiritual services with others in community”, (2) “talks about religious or spiritual matters with others in community” and (3) “engages in personal religious practices while alone”. All three items were rated on a 9-point scale (1 = Never, 9 = Daily) and the mean score used in the analyses. Cronbach's alpha was estimated to 0.73.

## 4 Statistical Analysis

All analyses were performed by means of SPSS for Windows (version 22.0). Skewness and kurtosis measures were all acceptable. The highest Skewness value was estimated for ISEL-12 (Skewness =  $-1.15$ ,  $SE = 0.08$ ; Kurtosis =  $1.75$ ,  $SE = 0.16$ ). Potential multicollinearity was checked by examining Tolerance and Variance Inflation Factors (VIF). Neither Tolerance nor VIF values violated the multicollinearity assumption (i.e., tolerance values greater than 0.1 and VIF values less than 10). In the descriptive analyses, gender differences were tested by means of Chi square tests and *T*-tests, and associations between the dependent (SWLS) and explanatory variables were estimated using Pearson's correlations. Given the nested nature of the data, potential differences between ICs were evaluated by calculating the Rho (i.e., Intercept variance/[Residual variance + Intercept variance]) and estimated to 0.01, indicating no substantial differences across communities.

Hierarchical multiple linear regression models were then conducted to test the predictive and incremental validity of *Social support*, *Identity fusion*, *Meaning in life*, *Community*

*satisfaction, Life change and Religious activity* above and beyond demographic variables and personality traits. Due to significant gender differences in life satisfaction and personality, separate analyses were run for each gender. The hierarchical regression analyses were conducted in five steps. Demographic variables (i.e., age, education, income, and tenure) were entered in the first step, the five personality traits in the second step, *Social support* and *Identity fusion* in the third step, *Meaning presence* and *Meaning searching* in the fourth step, *Community satisfaction* and *Life change* in the fifth step, and finally *Religious activity* in the sixth and last step. The effect of entering each block of explanatory variables was evaluated by examining the incremental change in  $R^2$  and the associated  $F$ -test statistic.

## 5 Results

### 5.1 Descriptive Statistics

Demographic information is given in Table 1. The average age was 53 years (range 18–91), and some 85% had at least a bachelor degree. The reported household income was relatively low (44% below US\$ 50,000) considering the educational attainment. As to marital status, 62% was living with a partner, and 66% reported to have children. Approximately 38% were members of a religious congregation.

**Table 2** Scores on the main study variables for the total sample and separately for men and women

	Total sample ( $n = 849$ )		Women ( $n = 584$ )		Men ( $n = 265$ )		$p^1$
	Mean	SD	Mean	SD	Mean	SD	
Life satisfaction	5.41	1.12	5.47	1.08	5.27	1.20	*
Personality							
Emotional stability	5.51	1.20	5.44	1.22	5.65	1.16	*
Extraversion	4.26	1.68	4.33	1.70	4.10	1.63	
Openness	5.87	0.98	5.90	0.94	5.80	1.05	
Agreeableness	5.52	1.08	5.62	1.05	5.28	1.11	*
Conscientiousness	5.82	1.15	5.91	1.10	5.63	1.23	*
Social support	27.8	4.2	28.0	4.0	27.4	4.6	
Identity fusion	3.93	0.96	3.92	0.95	3.95	0.98	
Meaning							
Presence	27.5	6.1	28.0	5.5	27.8	5.7	
Searching	18.9	8.0	18.9	8.0	18.9	8.0	
Community							
Tenure (months)	123	118	118	111	134	132	
Community satisfaction	5.90	1.24	5.91	1.20	5.90	1.32	
Positive change	6.13	1.04	6.15	1.01	6.12	1.08	
Religious activity	4.68	1.97	4.71	1.96	4.61	2.00	

<sup>1</sup> Gender difference, \* significant at  $p < 0.05$

Scores on the outcome and explanatory variables are shown in Table 2. The average score on *Life satisfaction* (based on SWLS) was 5.41. Women scored modestly ( $M = 5.47$ ,  $SD = 1.08$ ), but significantly ( $p < 0.05$ ) higher than men ( $M = 5.27$ ,  $SD = 1.20$ ). On the TIPI, gender differences were observed on three of the five personality traits: Women scored higher than men on *Agreeableness* and *Conscientiousness*, and lower on *Emotional stability*. The respondents scored higher than US “norms” (personal communication from Rentfrow, available at <http://goo.gl/FHzlxA>) on all five personality dimensions, with differences being most pronounced for *Conscientiousness* and *Emotional stability*. Apart from women’s score on *Extraversion*, the 99.9% CI for the TIPI trait scores did not encapsulate the US norms. Thus, the respondents were characterized by highly “positive” personality traits.

Scores on the *Social support* scale (ISEL-12) were weakly, but significantly higher for women ( $M = 28.0$ ;  $SD = 4.0$ ) than for men ( $M = 27.4$ ;  $SD = 4.6$ ), whereas scores on *Identity fusion* did not differ across gender ( $M = 3.93$ ,  $SD = 0.96$ ). Scores on *Meaning presence* and *Meaning searching* were estimated to 27.5 ( $SD = 6.1$ ) and 18.9 ( $SD = 8.0$ ), respectively, and no gender differences were observed. The correlation between the two subscales was estimated to  $-0.28$  (Table 3), indicating that those who experience meaning in life to a lesser extent search for meaning.

There were no gender differences in tenure in the community, community satisfaction levels, experience of positive change since joining the community, or religious activity. On average, the respondents had lived in their present community for approximately 10 years (Table 2). They were highly satisfied with their community ( $M = 5.90$ ,  $SD = 1.24$ ), and reported their lives to have changed positively since joining the community ( $M = 6.13$ ;  $SD = 1.04$ ), both on 1–7 scales.

## 5.2 Associations Between Study Variables

Scores on *Life satisfaction* were positively associated with most of the variables examined, the one exception being *Meaning searching* (Table 3). As expected, *Life satisfaction* scores were moderately associated with positive personality characteristics (e.g., *Emotional stability*), *Community satisfaction*, and perceived *Life change* since joining the community. Interestingly, *Life satisfaction* was most strongly correlated with *Meaning presence*, and *Social support* ( $r: 0.41$ – $0.47$ ). *Identity fusion*, that is, a deeper sense of connectedness with others in the community, also proved to be moderately associated with *Life satisfaction*. Although the correlation with *Tenure* was significantly positive, *Tenure* was the weakest correlate.

## 5.3 Hierarchical Multiple Regression Analyses

A hierarchical multiple regression analysis was performed in order to examine features that might predict wellbeing. Relevant variables were grouped into six blocks: (1) demographic variables; (2) personality; (3) relationships; (4) meaning in life, (5) community factors, and (6) religious activity. The blocks were added to the model stepwise (Table 4). Demography accounted for only 1.7% of the variance in women, and was not significant for men. Personality was significant for both genders, explaining 14.4% ( $F [9, 249 = 5.44]$ ) and 13.4% ( $F [9, 547 = 11.37]$ ) of the variance for men and women respectively, indicating that personality constitutes an important predictor of life satisfaction. The third block (relationships) was likewise significant, accounting for an additional 16.6% of the total variance for men ( $F [11, 247 = 11.06]$ ) and 10.5% for women ( $F [11, 545 = 17.66]$ ). The

**Table 3** Correlations between the main study variables ( $n = 913$ )

	LiSa	EmSt	Extra	Open	Agree	Consc	SoSu	IdFu	MePr	McSe	Ten	CoSa	PoCh
Life satisfaction	-												
Emotional stability	0.29**	-											
Extraversion	0.19**	0.08*	-										
Openness	0.12**	0.16**	0.26**	-									
Agreeableness	0.19**	0.40**	0.00	0.19**	-								
Conscientiousness	0.22**	0.24**	0.01	0.09**	0.19**	-							
Social support	0.41**	0.19**	0.27**	0.21**	0.20**	0.10**	-						
Identity fusion	0.30**	0.11**	0.15**	0.01	0.14**	0.01	0.32**	-					
Meaning presence	0.47**	0.25**	0.20**	0.23**	0.25**	0.23**	0.30**	0.16**	-				
Meaning searching	-0.20**	-0.17**	-0.02	-0.02	-0.10**	-0.17**	-0.12**	0.01	-0.28**	-			
Tenure	0.09*	0.11**	0.05	-0.07*	0.05	0.13**	0.07*	0.07*	0.16**	-0.16**	-		
Community satisfaction	0.34**	0.14**	0.09**	0.03	0.17**	0.01	0.33**	0.57**	0.13**	-0.03	0.01	-	
Positive change	0.35**	0.12**	0.11**	0.08*	0.13**	-0.01	0.30**	0.50**	0.17**	-0.04	0.11**	0.62**	-
Religious activity	0.13**	0.04	0.04	0.15**	0.20**	0.04	0.19**	0.21**	0.31**	0.00	0.09**	0.14**	0.21**

\* Significant at  $p < 0.05$ , \*\*  $p < 0.01$

**Table 4** Predictors of wellbeing—results from hierarchical multiple linear regression analyses

	Men											
	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6	
	$\beta$	<i>p</i>	$\beta$	<i>p</i>	$\beta$	<i>p</i>	$\beta$	<i>p</i>	$\beta$	<i>p</i>	$\beta$	<i>p</i>
Age	-0.05		-0.09		-0.04		-0.09		-0.08		-0.08	
Education	0.10		0.06		0.06		0.07		0.08		0.08	
Income	0.07		0.07		0.12 *		0.12 *		0.12 *		0.12 *	
Tenure	0.08		0.08		0.08		0.05		0.05		0.05	
Emotional stability			0.23 *		0.16		0.10		0.10		0.10	
Extraversion			0.11		-0.03		-0.08		-0.07		-0.07	
Openness			-0.04		-0.04		-0.11		-0.09		-0.09	
Agreeableness			0.05		-0.03		-0.03		-0.05		-0.05	
Conscientiousness			0.21 *		0.19 *		0.12 *		0.13 *		0.13 *	
Social support					0.27 *		0.23 *		0.17 *		0.17 *	
Identity fusion					0.28		0.21 *		0.14 *		0.14 *	
Meaning presence							0.39 *		0.38 *		0.38 *	
Meaning searching							0.01		0.01		0.01	
Community satisfaction									0.13 *		0.13	
Life change									0.07		0.06	
Religious activity											0.00	
<i>F</i> test	1.49		5.44 *		11.06 *		14.50 *		13.28 *		12.42	
Model <i>R</i> <sup>2</sup> (adjusted)	0.01		0.13 *		0.30 *		0.41 *		0.42 *		0.45	
Model <i>R</i> <sup>2</sup> change	0.02		0.14 *		0.17 *		0.11 *		0.02 *		0.00	
	Women											
	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6	
	$\beta$	<i>p</i>	$\beta$	<i>p</i>	$\beta$	<i>p</i>	$\beta$	<i>p</i>	$\beta$	<i>p</i>	$\beta$	<i>p</i>
Age	-0.07		-0.10 *		-0.05		-0.08		-0.07		-0.05	
Education	0.01		-0.03		-0.01		-0.01		-0.04		-0.05	
Income	0.09		0.09 *		0.08 *		0.06		0.08 *		0.06	
Tenure	0.14 *		0.09		0.03		-0.01		0.03		-0.02	
Emotional stability			0.18 *		0.15 *		0.13 *		0.12 *		0.11 *	
Extraversion			0.16 *		0.09 *		0.06		0.07		0.07 *	
Openness			0.08		0.03		0.02		-0.01		0.01	
Agreeableness			0.08		0.05		-0.02		0.01		0.01	
Conscientiousness			0.14 *		0.13 *		0.08 *		0.11 *		0.10 *	
Social support					0.27 *		0.22 *		0.18 *		0.19 *	
Identity fusion					0.16 *		0.15 *		0.04		0.01	
Meaning presence							0.30 *		0.29 *		0.31 *	
Meaning searching							-0.07		-0.07		-0.06	
Community satisfaction									0.10 *		0.09 *	
Life change									0.21 *		0.22 *	
Religious activity											-0.08 *	

Table 4 continued

	Women											
	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6	
	$\beta$	$p$	$\beta$	$p$	$\beta$	$p$	$\beta$	$p$	$\beta$	$p$	$\beta$	$p$
<i>F</i> test	3.42	*	11.37	*	17.66	*	21.77	*	23.49	*	22.44	*
Model $R^2$ (adjusted)	0.02	*	0.14	*	0.25	*	0.33	*	0.38	*	0.40	*
Model $R^2$ change	0.02	*	0.13	*	0.10	*	0.08	*	0.05	*	0.01	*

\* Significant at  $p < 0.01$

fourth block (meaning) explained an additional 10.5% of the variance for men ( $F[13, 245 = 14.50]$ ) and 8.1% for women ( $F[13, 543 = 21.98]$ ). The second last block (community factors), was likewise significant, explaining 1.6 and 5.2% of the variance for males ( $F[15, 243 = 13.28]$ ) and females ( $F[15, 541 = 23.49]$ ). The last block (religious activity) was significant for women ( $F[16, 540 = 22.44]$ ), but not for men. The full model explained a total of 41.4% of the variance (adjusted) for men and 38.2% for women.

As shown in Table 4, the most important predictor of life satisfaction among both men and women was *Meaning presence* ( $\beta_m = 0.38, p = 0.00$ ;  $\beta_f = 0.31, p = 0.00$ ). Among men, *Social support* was the second most important predictor ( $\beta_m = 0.17, p = 0.00$ ), followed by *Identity fusion* ( $\beta = 0.14, p = 0.02$ ), the personality trait of *Conscientiousness* and *Community satisfaction* ( $\beta = 0.13, p = 0.01$ ) and *Income* ( $\beta = 0.12, p = 0.03$ ). Among women, the second most important predictor was perceived *Life change* since joining the community ( $\beta_f = 0.22, p = 0.00$ ), followed by *Social support* ( $\beta_f = 0.19, p = 0.00$ ), *Emotional Stability* ( $\beta = 0.11, p = 0.00$ ), *Conscientiousness* ( $\beta = 0.11, p = 0.00$ ), *Community satisfaction* ( $\beta = 0.09, p = 0.00$ ), and *Religious activity* ( $\beta = 0.08, p = 0.04$ ). *Meaning searching*, along with demographic variables apart from *Income* for men (i.e., *Age*, *Education*, and *Tenure*), were not significant predictors of *Life satisfaction*.

## 6 Discussion

### 6.1 Comparison with Other Populations

The primary rationale for the present study was to investigate wellbeing in ICs and to examine important predictors. The very high *Life satisfaction* scores observed indicate that IC inhabitants on average are happy with their lives. In fact, the observed score is equivalent to the highest score obtained in a multinational comparison including 31 representative studies (range 3.2–5.4) (Pavot and Diener 2008). The community members were also characterized by highly favorable personality characteristics including emotional stability, agreeableness and conscientiousness.

Scores on the two subscales measuring meaning in life also indicate that the IC members regard their lives as highly purposeful. The original work on this questionnaire reported scores of 23.5 for *Meaning presence* and 23.1 *Meaning searching* in a sample of US university students (Steger et al. 2006). Other US studies tend to report values on both subscales in the range 21–25 (Steger et al. 2008a, b; Steger 2012). Thus, the IC members report a comparatively high score on having found a meaning, while a particularly low score on searching for meaning. In fact, *Meaning presence* was the single most important

factor in predicting *Life satisfaction* (Table 4) for both men and women. The close association between *Meaning presence* and *Life satisfaction* (Table 3) is similar to associations reported elsewhere (Steger et al. 2006). The score for *Meaning searching* was significantly negatively correlated with both *Meaning presence* and *Life satisfaction*, supporting the relevance of having found a meaning. Overall, the results corroborate the contention that ICs are well suited to offer inhabitants a satisfying, purposeful life.

The question of social qualities was probed with two scales, the ISEL-12 (Cohen et al. 1985) which measures *Social support* (e.g., access to emotional and tangible support from others), and the Fusion Scale (Gomez et al. 2011), which focuses on a perceived connectedness or oneness with the community (*Identity fusion*). The present respondents scored high on both parameters, respectively 27.8 (0–36 scale) and 3.9 (1–6 scale). For comparison, a study of US National Guard soldiers scored 26.6 on ISEL-12 (Sripada et al. 2015), while various Hispanic subpopulations in the US scored on average 25.8 (Merz et al. 2014). As to *Identity fusion*, in the original work on the instrument, Spanish students scored the equivalent of 3.0 (Gomez et al. 2011); while two studies from Poland reported the equivalent of 3.2 (Jaskiewicz and Besta 2014) (converted from scales of 0–6 or 1–7). The comparisons suggest a high level of connectedness and relatedness amongst members of ICs. Functional *Social support* was an important predictor of life satisfaction, constituting the second (men) and third (women) most important predictor, whereas *Identity fusion* was particularly important for men. These results are not surprising in lieu of previous research on wellbeing, pointing to social life as a key factor. It should be noted that ICs have qualities expected to make them particularly well suited to cater to social life, by practicing more or less tight communal living in relatively small settlements.

Religion can offer a suitable framework for social organization (Grinde 2005), and regular engagement in religious activities have previously been shown to be positively related to health and happiness (Ferriss 2002; Koenig and Cohen 2002). In the present study, religious activity was a negative predictor of life satisfaction among women when accounting for the other predictors in the model, but had no effect on men (Table 4). In the general population, the following two factors may account for a positive effect of religion: One, religiousness or spirituality presents a meaning of life; and two, active participation in a congregation or spiritual fellowship offers a social venue. In the ICs, these two factors may be catered for by other means. Thus, the present results suggest that religiousness per se is not important.

## 6.2 Evolutionary Perspectives

Humans presumably evolved to live in small-scale, tribal communities (perhaps 20–40 people) with tight social network and considerable engagement in tribal affairs (Crawford and Krebs 2008). As discussed elsewhere (Grinde 2009), the current prevalence of mental disorders and subclinical symptom levels (Wittchen et al. 2011)—primarily in the form of anxiety, depression and chronic pain—appears to be higher than what might be expected in a “natural” setting. That is, these mental problems are likely to reflect a way of life that differs from the way humans are genetically adapted to live. These conditions, and other “diseases of civilization” (e.g., nearsightedness and type 2 diabetes), may reflect *discords*, in the sense that they are due to a mismatch between our evolved predispositions and present conditions (Grinde 2012). The positive qualities of the respondents, as to both wellbeing and personality, may be partly due to the ICs offering a setting that caters to human nature. That is, on average the ICs appears to offer a life less in discord with the nature of being human compared to mainstream society. The relevant differences may

entail the following features: One, social connections; two, sense of meaning; and three, closeness to nature.

Social life has an obvious evolutionary rationale in the importance of cooperative behavior for survival in prehistoric humans. The importance of finding a meaning in life is less obvious until we realize the importance of cultural evolution in the human species. While cultural traditions exist in other species (Avital and Jablonka 2001), the transmission of learned information across generations has become an inheritance system in humans that rivals genetic inheritance in importance (Jablonka and Lamb 2006; Richerson and Boyd 2005; Henrich 2015). Moreover, the two systems of inheritance are thoroughly intertwined, so it is not the case that cultural evolution is merely an instrument of genetic evolution to maximize the propagation of genes (Richerson and Boyd 2005; Paul 2015). The term “meaning system” broadly refers to a cultural system that evolves to adapt human groups to their environments. Every person requires a meaning system to interpret the world around them and ultimately to act in the world. Once this is taken into account, the importance of finding a meaning in life can be seen to have a strong evolutionary rationale.

### 6.3 Sustainability

ICs tend to be associated with a focus on reduced consumption, and there is some evidence that life within ICs carries a lower ecological impact relative to mainstream configurations (Hendrickson and Wittman 2010; Jarvis 2011; Sanguinetti 2014). Although the question of ecological impact was not directly investigated in the present study, the level of income reported appears to be below expected values (confer the United States Census Bureau) when considering the respondents high educational level. Moreover, “to live a more sustainable life” was a common theme in participant responses to the question of why they chose to join their community. Overall, the results suggest that a more sustainable way of life does not negate high levels of *Life satisfaction*. This is in line with a previous report, concluding that an ecological, non-materialistic life style may improve wellbeing (Kasser et al. 2014).

Whether or not a low footprint contributes to the happiness of the present responders, sustainability will matter to future generations. In order to move cultural values in this direction, it is important to describe alternatives that are both ecofriendly and make people happy. One cannot expect people to forego consumerism unless the evidence suggests that their quality of life will not suffer. On the other hand, happy people appear to be more willing to make sacrifices for the sake of the environment (Sulemana 2015). Our findings are in line with the assumption that ICs may serve as models for a way of life that combines happiness with sustainability, but further studies are highly warranted.

### 6.4 Limitations

Although our study has a number of strengths, including psychometrically sound instruments and a substantial number of IC members from different ICs, the sample is self-selected and may not be representative of IC members. Additionally, individuals who move to, and remain within, ICs may be characterized by a more positive sentiment than the average population. The presence of a selection bias is corroborated by the respondents' high level of education (Table 1), and also suggested by favorable scores on the personality inventory (Table 2). Although personality is considered to be relatively stable in adulthood (except for general age-related changes) (Roberts et al. 2006), the scores are likely to be influenced by the social environment. Controlling for age, tenure

(i.e., time spent in the community) significantly predicted elevated scores on *Emotional stability* and *Conscientiousness* among women in the present sample (Table 3), suggesting positive personality development over time.

Overall, we envisage that the high level of *Life satisfaction* observed partly reflects a selection bias, but also partly a positive impact of the communal life offered. This position is supported by the highly positive responses to the questions of *Community satisfaction* and perceived *Life change*. The average sample scores were respectively 5.9 and 6.1 on 1–7 scales (Table 2).

Many attempts at creating ICs fail or are short lived. The recruitment procedure for the present study implied another selection bias in terms of obtaining data primarily from well-established communities—as indicated by the average tenure of approximately 10 years. On the other hand, these communities are probably the more interesting to study when examining features that may improve wellbeing. As discussed above, the present data suggest that life in these ICs has a positive impact on the inhabitants. The question of what features predict the high score on life satisfaction is, however, of interest regardless of to what extent the score is a result of living in these communities, or a selection bias. The most prominent factors overall were: (1) having found a meaning in life; and (2) experiencing social support and connectedness with the local community (Table 4).

## 6.5 Concluding Remarks

In the present study, we found that members of ICs scored high on a number of desirable individual and community level parameters—including satisfaction with life and community, presence of meaning in life, and social support. Unfortunately, our study is cross-sectional, and the sample self-selected, so we cannot draw causal inferences. Yet, our findings are in line with a substantial literature indicating that smaller, and more close-knit, communities provide for meaning and social connectedness, and that these factors are relevant in terms of wellbeing. In short, the results suggest that a more sustainable way of life does not negate high levels of wellbeing and life satisfaction.

Establishing a successful IC is difficult. As opposed to tribal societies, few people are born directly into this kind of setting; thus the inhabitants typically start up with considerable diversity as to cultural values and ways of living. These factors increase the challenge, as close community ties demand a high level of agreement and attunement. Many people are unlikely to thrive with the life-style of intentional communities. Yet, at least some ICs are successful, and some of their features can be adopted by mainstream societies. Several of the participating communities had an urban location, and experiments in city co-housing have proven successful (Sanguinetti 2014). One relevant approach is based on the work of the Nobel Prize winning economist Elinor Ostrom (Wilson et al. 2013), who defines core principles that a community ought to focus on in order to thrive.

Even if the communities offer a positive experience for their inhabitants, they may have variable impact on the surrounding society. Cultural “islands”, or niche societies, where people have particular values and ways of behaving, may potentially lead to conflicts with the surrounding population. Moreover, some communities struggle economically, which may imply a burden on the social welfare program offered by the government.

Establishing a formal community is not necessarily required in order to obtain benefits. Architectural features and city planning—for instance in the form of shared rooms, communal backyards, easily accessible green areas, and factors that stimulate local engagement—may constitute relevant factors. It is also possible to endorse ecological values in a way that promotes a platform for a suitable meaning in life. While we

acknowledge that embracing intentional community life may not be desirable, or even possible, for many people today, our findings suggest that a return to some form of a more communal existence, even in a modern context, is associated with relatively satisfying and meaningful lives.

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