

# Labor Unions and Life Satisfaction: Evidence from New Data

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**Abstract** While a growing literature demonstrates the impact of socio-political factors on citizens' quality of life, scholars have paid comparatively little attention to the role political organizations such as labor unions play in this regard. We examine labor organization as a determinant of cross-national variation in life satisfaction across a sample of advanced industrial polities. Our findings strongly suggest that unions increase the life satisfaction of citizens, and that that this effect holds for non-union members as well. Moreover, we also find that labor organization has the strongest impact on the subjective well-being of citizens with lower incomes. We confirm these hypotheses using both individual and aggregate-level data from fourteen nations. We show these relationships to have an independent and separable impact from other economic, political, and cultural determinants. The implications for the study of life satisfaction and of labor unions as political actors in general are discussed.

**Keywords** Labor union · Happiness · Life satisfaction · Democratic · Industrial

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Does organized labor, as one of the central institutions of the modern industrial democratic state, affect the quality of life that citizens experience for better, or for worse? While scholars have examined the effects of a wide variety of economic, psychological, and cultural indicators on subjective well-being (e.g., Inglehart 1990; Diener et al. 1995; Veenhoven 1997a; Diener and Suh 2000; Lane 2000; Frey and Stutzer 2002), explicitly political factors have been largely neglected. Of late that has changed, however. Research incorporating political factors has demonstrated the importance of broad concepts like democracy (e.g., Inglehart 2000; Frey and Stutzer 2002) and social capital (e.g., Helliwell 2003), as well as more specific matters such as government size (e.g., Bjornskov et al. 2007), the ideological composition of governments (Radcliff 2001) or their public policies (e.g., Pacek and Radcliff 2008a, b), and the technocratic provision of “good government” (Helliwell and Huang 2008).

However, there has been less attention paid to the equally political but less studied institution of the labor union. The presence and activity of labor unions is a particularly important political variable. For instance, scholars have argued that labor unions play a critical role in politics by promoting policies that support their constituents (Cohen and Rogers 1983; Radcliff and Saiz 1998). Additionally, pluralist theory holds that labor unions advocate not only union members, but also “society’s non-rich” (Korpi and Shalev 1979; Kuttner 1986). Levi (2003, 45) argues that even in decline, organized labor is arguably still “the most effective vehicle for achieving a democratic and equitable society.”

Given the importance of other political variables for life satisfaction and the prominent place of labor unions in the political world, it is critical to assess the impact of organizations with direct and indirect political implications such as labor unions on subjective well-being. Democratic polities where organized labor plays a role in the political process invariably possess market economies. While market economies contribute to human well-being in a variety of ways, market societies are also *class* societies characterized by class conflict. Class interests compete over the direction of public policy, but workers also compete within the labor market, and do so primarily through labor unions. Social theorists of all persuasions generally agree that labor organization is important, and large empirical literatures in political science, sociology, and economics document the cross-national impact of unions on a range of social outcomes. Yet to date, few have empirically tested the proposition that labor unions improve the quality of life for citizens. In this paper, we attempt to assess how labor unions affect cross-national variation in life satisfaction. We argue that cross-national differences in the extent of labor organization play a significant role in determining why citizens in some nations express greater subjective satisfaction with life than others. We examine this proposition using data on fourteen industrial democracies: Australia, Canada, Finland, France, Germany, Great Britain, Italy, Japan, The Netherlands, Norway, Spain, Sweden, Switzerland, and the United States using the most recent wave (2005) of interviews from the World Values Survey.

## 1 The Scientific Study of Subjective Well-Being

Conceptually, “subjective well-being” (SWB) refers to the degree to which individuals evaluate positively the quality of their life in total. Most contemporary survey work on the subject relies on a single, direct question that asks respondents to comment on “how satisfied” or how “happy” they feel with their lives “in general.” This simple item is

generally agreed to perform as well or better than more complex formulations (e.g., Veenhoven 1993). Comparing mean levels of SWB across nations using this indicator has become commonplace (for reviews, see Veenhoven 1996, 1997a). While subtle distinctions between happiness and satisfaction are sometimes advanced (the former thought to involve a more affective or emotional response, the latter a more cognitive one) we will use the two terms interchangeably, given the large body of evidence documenting that the two (and other related) measures correlate near unity in empirical practice (e.g. Veenhoven 1996).

A meticulously well-developed literature on subjective well-being has largely responded to a wide range of obvious and appropriate concerns. Conventional survey items used to measure subjective well-being have been tested and found reliable and valid (Myers and Diener 1997). While varying in a non-random fashion in response to positive and negative life events, satisfaction reports display stability over time and are not particularly troubled by social-desirability bias (e.g. Myers and Diener 1995). Individuals purporting to be more satisfied with their lives also demonstrate the behavioral and attitudinal characteristics that convey happiness—they laugh and smile more than others and they also score higher on other self-reported measures of well-being (Watson and Clark 1991; Myers 1993; Myers and Diener 1997). Individual assessments of well-being also correlate highly with external evaluations from friends, family members, and clinical evaluations (e.g. Myers and Diener 1997). Veenhoven has examined in detail a large number of concerns over the scientific utility of self-reported satisfaction (1993, 1996, 1997a, b) concluding in the end that most doubts “can be discarded” (1996, 4). As he puts it, the “literature on this point can be summarized as saying that simple questions on happiness and life satisfaction measure subjective appreciation of life quite validly” (1997b, 157). Both validity and reliability are improved further when using national averages rather than individual-level data, given that imprecision (and response error) in individual judgments will tend to balance out in large samples.

The issue of comparability of data across countries looms. Three objections present themselves. Veenhoven (1993, 1996, 1997a, b) has again addressed each in turn. The first relates to linguistic barriers. As words like “satisfaction” and “happiness” have subtleties and connotations that differ across languages, it is natural to wonder if these differences hinder comparison. Veenhoven concludes there is little reason for concern, since the rank ordering of countries are virtually identical when considering national means on questions about “life satisfaction,” “happiness,” and a question eliciting a rating between “best and worst possible lives.” This is of course further evidence in support of the validity and reliability of the survey items themselves. Veenhoven also finds that average levels of satisfaction within multi-lingual countries do not differ by language group (see also Inglehart 1990). A second issue relates to social desirability: if the social pressure to overstate happiness differed across countries, such would obviously render meaningful comparison impossible. Among other tests, Veenhoven looked for evidence of this propensity by comparing average satisfaction in countries where surveys indicate that happiness ranks high in value hierarchies to satisfaction in countries where it does not, and found no differences. The third objection also relates to social desirability, and is the reverse phenomenon of the second. In some cultures it may seem immodest or otherwise unseemly to admit to being especially satisfied with one’s life, which would result in under-reporting for individuals in some countries. As before, Veenhoven found this hypothesis to fail multiple empirical tests.

In sum, the available evidence clearly suggests that we can both measure life satisfaction with reasonable accuracy and compare levels of satisfaction across nations without

great difficulty.<sup>1</sup> This in turn allows us to test empirical propositions, such as the effect of labor organization, on the life satisfaction of individuals across nations.

## 2 Labor Unions and Life Satisfaction

Unions contribute to subjective well-being through a variety of mechanisms. Some are direct, in the sense that they affect organized workers as individuals per se. This means that a society's level of satisfaction should increase as union density increases. Others are indirect, in the sense that they affect both organized and unorganized citizens by altering social arrangements, which improves living conditions generally. All are ultimately political in that union density itself is universally agreed to be determined by government policy (e.g., Western 1997). Both the direct and indirect contributions of labor unions will be discussed in the following.

Scholars argue that the main sources of life satisfaction come from outside the work place (Lane 2000). It remains the case, however, that work is one of, and perhaps the, central focus of most people's lives (Seeman and Anderson 1983). In developing countries, the importance of the workplace is magnified even further given the stakes attached to employment. Labor market participants spend a large portion of their waking lives in the workplace. To the extent that the work experience is an agreeable one, people ought to be more satisfied over all. Empirical studies confirm that proposition; satisfaction with one's job is a powerful determinant of overall life satisfaction (Sousa-Posa and Sousa-Posa 2000; Argyle 2001). Scholars are of contending opinions about what precisely the relationship between job satisfaction and life satisfaction is; for some, job satisfaction is simply *part* of life satisfaction (Diener 1984; Rice et al. 1985). Others contend that both job satisfaction and life satisfaction are influenced by common factors, e.g. income (Near et al. 1984; Hart 1999). Still others argue that the core disposition of individuals mitigates the effect of job satisfaction on life satisfaction; a person who may view themselves as incompetent may not translate positive working conditions into higher levels of life satisfaction (Rode 2004).

For a variety of reasons, belonging to a labor union may tend to increase job satisfaction (Pfeffer and Davis-Blake 1990), which in turn should contribute to greater overall life satisfaction for union members.<sup>2</sup> The core relationships are straightforward: job security and a positive work environment contribute to satisfaction with one's job (Sousa-Posa and

<sup>1</sup> We do not ignore the fact that recent dissenting opinions call into question the empirical usefulness of contemporary happiness/life-satisfaction research. Wilkinson's (2007) thoughtful piece expounds the position that most happiness surveys do not in fact capture precisely what they intend to in respondents' answers, and that better designed surveys will be necessary in the future to justify the often sweeping claims of happiness scholars. Nonetheless, for now the scholarly consensus is that the survey instruments hold up reasonably well provided one is careful not to attribute explanatory power to them beyond what they represent.

<sup>2</sup> Some evidence in the literature suggests that union members are actually more dissatisfied than non-members, but also that they are far less likely to quit than non-members (Freeman and Medoff 1984). This puzzle was resolved by applying the "voice hypothesis," in that unionization allows members to complain about their working conditions since they are in a position to ameliorate them through collective action. Workers thus sought to improve their working conditions rather than "exit" because they could, and presumably because they valued their jobs enough to try. There is also an endogeneity problem that Pfeffer and Davis-Blake (1990) successfully explain. Clark (1996, 202) nicely addresses the issue: "if unions address worker dissatisfaction, the more dissatisfied workers will be the most attracted to union membership," so that union shops will emerge in those industries and under those employers, that create the most initial dissatisfaction. When controlling for this effect, Pfeffer and Davis-Blake demonstrate that "unionization has a significant positive effect on [job] satisfaction." Similar evidence is provided by Bender and Sloane (1998).

Sousa-Posa 2000). Unions, as a rule, increase the production of both of these goods. Contracts that protect workers from arbitrary dismissal are likely to increase job security. Similarly, union members may feel empowered by the existence of grievance procedures that give one the ability to appeal decisions made by employers. In these ways, unions facilitate the creation of a workplace that functions through “due process” with felicitous consequences (Sutton 1990).

In addition, unions may reduce alienation by giving members a collective say in how workplaces are run. The less alienated, in turn, are more likely to be satisfied with their jobs, and thus, their lives. Alienating work imposes psychological costs on people that contribute to depression (Erikson 1986), job dissatisfaction (Greenberg and Grunberg 1995), and a general decline in life satisfaction (Loscocco and Spitze 1990). Similarly, scholars generally agree that autonomy on the job is vital for well-being. As Kohn et al. (1990, 964) state, “occupational self-direction... affects values, orientations, and cognitive functioning” in exactly the way one would imagine: those who lack self-direction are more prone to psychological “distress” (anxiety and a lack of self-confidence). To be sure, alienation and especially autonomy are largely determined by occupation, but there are reasons to expect union members to evidence these pathologies to a lesser degree for any given type of occupation. It is possible that belonging to a union can improve an individual’s core self-evaluation, thus increasing the likelihood that other work benefits will be translated into higher levels of life satisfaction as Rode (2004) argues.

While the union workplace may actually reduce autonomy in the abstract—given that union rules are indeed more rules that must be adhered to—unions are also contextually more supportive of self-determination in two respects. First, they establish a degree of autonomy for their members through collective bargaining at a level that is almost by definition higher than in non-union workplaces. Workers thus rightly interpret autonomy as something collectively achieved, i.e. as a benefit of organization (Edwards 1979). Further, as Fenwick and Olson (1986) observe, the experience of union membership fosters cognitive changes that encourage exactly the workplace participation that unionization allows, which may in turn, foster more self-direction. To the extent that unions lessen alienation, it follows that we should again see a positive relationship between membership and well-being, net of other factors.

Unions may also contribute to well-being through their effect on another variant of connectedness. Social-psychology literature has demonstrated that individuals are afforded some protection against the deleterious consequences of stress, and especially job related stress, through social support networks (Cohen and Wills 1985). Even enjoyable work can be a major source of stress, particularly when performance affects one’s livelihood. While support from all quarters is surely helpful, evidence suggests that buffering is most effective when the source of support is from the same domain as the source of stress. Work related stress, then, is best buffered by having sources of emotional support at work (Jackson 1992). Common sense would suggest that unions may facilitate such support, in that they help build not only connections, but also a sense of solidarity among coworkers. Indeed Uehara (1990) goes so far as to specify “solidarity” as a critical agent in effective social support networks. By nurturing solidarity, unions may thus provide an ideal context in which to find the type of social support that helps insulate against work-related stress.

There are few rigorous empirical studies of the general role of unions, social connection, and stress, but the extant literature does offer some evidence suggesting that unions facilitate both general social support (Lowe and Northcott 1988) and protection against job related stress per se (Brenner 1987). The evidence in regard to the negative effect of job stress on life satisfaction is clearer still (Loscocco and Spitze 1990). Unions may thus again

contribute to higher quality of life among their members. Unions may also contribute to the well-being of their members, and perhaps to society at large, through their capacity (in varying degrees) as participatory institutions. It is often argued that participating in organizations such as unions tends to teach individuals cognitive and social skills. People learn how to communicate with each other as well as to analyze and solve problems better. Evidence also suggests that belonging to an organization helps individuals understand their preferences and interests more clearly.

More simply though, unions offer layers of protections and benefits that insulate workers from the vicissitudes of market fluctuations to some degree. The literature on life satisfaction makes it very clear that unemployment in particular is a major stressor, both mentally directly, and physically indirectly (see Catalano 1991; Laitinen et al. 2002; Charles and DeCicca 2008). Physical and mental stress in turn decreases perceived subjective well-being.

The participatory or developmental strand of democratic theory encourages worker participation and involvement in decision making in the workplace because such participation is believed capable of creating better citizens—citizens who are more sophisticated, more knowledgeable, more tolerant, and more civic minded (Pateman 1970). An extensive body of analysis generally supports the empirical veracity of this presumption (for a review, see Radcliff and Wingenbach 2000). Thus, if participation in organizations contributes to human development, and if being a union member implies at least some degree of participation in the organization, then more union membership should mean more developed citizens. If we are willing to accept that more developed citizens will tend to be more satisfied citizens, then union membership should contribute to satisfaction in this way. Further, while they do not frame their argument in a developmental framework, Frey and Stutzer (2002) do demonstrate that institutional settings do produce greater levels of subjective well-being. If so, then unions should similarly contribute, at least to the extent that they offer participatory opportunities.

The arguments above bring us to social capital (Putnam 1993, 2000). At its core, “social capital refers to connections among individuals—social networks and the norms of reciprocity and trustworthiness that arise from them” (Putnam 2000, 19). Generalizing slightly, the implicit idea is that social networks facilitate positive psychological and cognitive changes in individuals that not only are politically desirable, but which are also conducive to greater personal well-being (Putnam 2000, 333–334). Indeed, the literature is unanimous in suggesting that social connectedness fosters greater subjective well-being. This argument is made most persuasively by Robert Lane (1978, 2000), who places the blame for declining levels of subjective well-being in the United States and Western Europe on a growing “famine” of interpersonal relationships (2000, 9). A variety of other studies have documented the importance of social connection (Myers and Diener 1995; Veenhoven 1996).

The proposition that unions as organizations facilitate the building of social networks requires no elaboration. That they are likely as fraternal organizations to foster norms of reciprocity and solidarity is equally clear. We have already noted the positive effects of union membership on social connections in the workplace. We thus have reasons to hypothesize further that union members, given that they tend to enjoy their jobs more and to suffer less from work-related stress, to say nothing of having more social connections (and indeed more social capital), are likely to be better able to build and maintain intimate and rewarding relationships. Labor organizations can thus affect the quantity and quality of personal connections between people, which in turn surely contribute to life satisfaction (Lane 2000). To the extent that social capital and social connectedness contribute to a

better quality of life, we consequently return again to the hypothesis that unions promote well-being.

In addition to the direct impact of unions on the life satisfaction of their members, the social level of unionization should also indirectly contribute to the life satisfaction of non-members, through the contagion effect, where an individual's subjective well-being is to some extent determined by interactions with others. As such, people are likely to be more satisfied themselves the more they interact with other satisfied people. Those in countries with a higher proportion of more-satisfied-than-otherwise union members are likely to be more satisfied, on average, than those in countries with fewer proportional union members. This effect will be most apparent in the intimate relationships discussed above, but the logic extends to all forms of social interaction.

With this enunciated, it is perhaps surprising that so little scholarly attention has been devoted to empirical explorations of the relationship between labor unions and subjective well-being. Radcliff's (2005) appraisal found that both union membership and union density positively affect life satisfaction in a sample of industrial democracies. The study focused largely on a time span ending in the early 1990s, however. While the context here was the parallel long-term decline of organized labor membership and influence along with a decline in levels of life-satisfaction in the industrial world (see Lane 2000), the situation has changed somewhat. While there is little doubt that union membership continues to decline (albeit at a more dramatic rate in some industrial countries than others), scholars now speak of a resurgence in levels of life-satisfaction beginning in the late 1990s. Inglehart, et al. (2008) demonstrate, for example, that levels of life-satisfaction rose markedly in 45 of 52 countries studied. It is therefore incumbent to ascertain whether the labor-happiness relationship still holds, and to what extent.

In addition, the notion that the relationship may vary across sub-groups has yet to be explored. While Radcliff's earlier analysis notes a positive effect on *both* members and non-members of unions, there is no attempt to determine whether the effect is mitigated by one's socioeconomic standing. It may be the case that individuals more insulated from the vagaries of economic fluctuations are in turn less affected by the varied protections against market forces that labor unions offer. In the analysis that follows, we test to see if this is the case, specifically looking at different income sub-groups in our set of industrial democracies.

### 3 Data and Method

We use both individual and country-level data to examine the relationship between organized labor and life satisfaction. The individual-level data is drawn from the most recent (2005) wave of the World Values Survey (WVS). Self-reported life satisfaction is measured on a 1–10 scale where respondents are asked: "All things considered, how satisfied are you with your life as a whole these days? Using this card on which 1 means you are 'completely dissatisfied' and 10 means you are 'completely satisfied' where would you put your satisfaction with your life as a whole?" As detailed earlier, a large and growing literature across the social sciences assesses the validity and reliability of self-reported measures of life satisfaction (e.g., Inglehart 1990; Myers and Diener 1995; Veenhoven 2002). For example, Myers and Diener (1995) find that self-reports are consistent with external evaluations, display stability over time, and are not particularly troubled by social-desirability bias.



As our measure of union membership, we code respondents dichotomously where respondents who reported they are either currently or were formerly a member of a labor union are coded 1 and all other respondents are coded zero.<sup>3</sup> We expect that, net of other factors, union members will report higher levels of life satisfaction such that the coefficient for union member will be positively signed and significantly different from zero.

We also expect income to moderate any relationship between union membership and life satisfaction. However, measuring self-reported income across countries is a difficult enterprise because of different monetary units and exchange rates. To address this problem, the WVS uses the following 10 category response item to assess a respondent's self-reported income status relative to others in his or her country: "On this card is a scale of incomes on which 1 indicates the 'lowest income decile' and 10 the 'highest income decile' in your country. We would like to know in what group your household is. Please, specify the appropriate number, counting all wages, salaries, pensions and other incomes that come in." To assess whether the relationship between labor union membership and life satisfaction varies with income status, we model life satisfaction as a function of an interaction between union membership and income, the main effects (union membership and income by themselves), and a series of controls that we describe below. If the interaction term is positive and statistically distinguishable from zero, the "boost" of being a member of a labor union on life satisfaction increases as a respondent's income rises. If the interaction term is negative, the positive impact on life satisfaction declines as a respondent's income increases (i.e. the largest "boost" is among people with lower incomes).

We also control for a host of other factors that might predict individuals' assessments of how satisfied they are with their lives including education, gender, age and age squared, marital status, employment status, church attendance, interpersonal trust, and self-reported health (Myers and Diener 1995; Radcliff 2001, 2005). Education is measured using a nine category response item that ranges from no formal education to earning a university degree. We include a term for both age and age squared because of our expectation of a curvilinear relationship such that both young and old respondents tend to, on average, be more satisfied with their lives than those who are middle aged (Radcliff 2005). We include dummies for whether a respondent is married and whether they are unemployed. We measure church attendance on a 1–7 scale where a higher number indicates more frequent attendance. We measure interpersonal trust using a dummy variable where the respondent is asked: "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" and coded 1 if they respond "most people can be trusted" and zero if they respond "need to be very careful." Finally, we measure self-reported health using an item that asks respondents: "All in all, how would you describe your state of health these days? Would you say it is very good, good, fair, poor, or very poor?" (healthier responses coded higher).

We are also interested in the relationship between a country's aggregate level of union participation (i.e. union density) and life satisfaction. To measure union density, we use data from 2005 from the Organization for Economic Cooperation and Development (OECD). We also control for a set of country-level measures that have been shown to impact levels of subjective well being and life satisfaction in previous studies (Inglehart 1990; Radcliff 2001, 2005). We selected this particular set of control variables to account for rival political, economic, and cultural explanations for variation in life satisfaction and to further guard against the possibility of a spurious relationship between organized labor and life

<sup>3</sup> When respondents who were former but not current union members are instead coded as non-members, the results are substantively identical to those we report below.



**Table 1** Union density and country-level life satisfaction

|                      | (1)              | (2)               |
|----------------------|------------------|-------------------|
|                      | Estimator        |                   |
|                      | OLS              | Robust regression |
| Union density        | 0.012** [0.005]  | 0.012* [0.006]    |
| Welfare expenditures | -0.018 [0.030]   | -0.019 [0.037]    |
| GDP                  | -0.000 [0.000]   | -0.000 [0.000]    |
| Unemployment rate    | -0.060 [0.063]   | -0.059 [0.077]    |
| Individualism        | 0.102 [0.065]    | 0.104 [0.079]     |
| Constant             | 7.328*** [1.019] | 7.326*** [1.241]  |
| $R^2$                | 0.65             | 0.56              |
| $N$                  | 14               | 14                |

Dependent variable: self-reported life satisfaction (1–10), aggregated to country means

Cell entries are OLS (column 1) and robust (column 2) regression coefficients, standard errors in brackets

\*  $p < .10$ , \*\*  $p < .05$ ,

\*\*\*  $p < .01$ ; two-tailed test

satisfaction. First, we control for social welfare expenditures as a percentage of total GDP to ensure that union membership, and not the political impact of organized labor in promoting more generous welfare policies (Radcliff and Saiz 1998), is contributing to levels of life satisfaction. Second, we control for a county's GDP and unemployment rate, two economic factors that have typically been controlled for in previous studies (e.g., Radcliff 2005). Finally, we include a measure of the "individualism" of a country's culture with the expectation that people living in cultures that provide them greater individual autonomy will have higher levels of life satisfaction (Radcliff 2001).<sup>4</sup> All measures are from 2005.

We analyze the relationship between labor organization and life satisfaction across fourteen industrialized democracies: Australia, Canada, Finland, France, Germany, Great Britain, Italy, Japan, The Netherlands, Norway, Spain, Sweden, Switzerland, and the United States. Since the life satisfaction variable we use as our dependent variable has ten categories and is (roughly) normally distributed, we use ordinary least squares (OLS) regression in all analyses. Because individual respondents are clustered within countries and experience the same country-level conditions (same union density, GDP, unemployment rate, etc.), we report Huber-White robust standard errors clustered on country. This procedure yields estimates that are robust to both between-country heteroskedasticity and within-country correlation (i.e. robust to error terms being neither identically distributed nor independent).

## 4 Results

We begin by assessing country-level data and asking: Net of other factors, do countries with higher levels of union density have higher aggregated levels of life satisfaction?<sup>5</sup> To answer this question, we use both regular OLS and robust regression (which reduces the influence of outlier cases). The results of these analyses are reported in Table 1. Notice that for both models, the coefficient for union density is positively signed and bounded above zero at conventional levels of statistical significance. Substantively, moving from a country with a union density one standard deviation below the mean to a country one standard

<sup>4</sup> Data on social welfare expenditures and unemployment rate are from the OECD. Data on GDP are from Penn World Tables. Data on a country's level of "individualism" are drawn from Triandis (1993).

<sup>5</sup> Country-level measures of life satisfaction are computed by taking the mean response to the 1–10 scale life satisfaction item on the 2005 WVS.

**Table 2** Union membership and life satisfaction: impact of income

|                       | (1)               | (2)               | (3)               | (4)               |
|-----------------------|-------------------|-------------------|-------------------|-------------------|
| Union member          | 0.120** [0.041]   | 0.099*** [0.031]  | 0.355*** [0.078]  | 0.320*** [0.082]  |
| Income * union member | –                 | –                 | –0.043** [0.015]  | –0.040** [0.015]  |
| Income                | 0.078*** [0.016]  | 0.074*** [0.014]  | 0.088*** [0.017]  | 0.084*** [0.016]  |
| Education             | –0.002 [0.017]    | –0.014 [0.014]    | –0.002 [0.017]    | –0.014 [0.014]    |
| Female                | 0.082** [0.033]   | 0.084** [0.032]   | 0.087** [0.034]   | 0.089** [0.033]   |
| Age                   | –0.046*** [0.007] | –0.047*** [0.007] | –0.046*** [0.007] | –0.047*** [0.007] |
| Age <sup>2</sup>      | 0.001*** [0.000]  | 0.001*** [0.000]  | 0.001*** [0.000]  | 0.001*** [0.000]  |
| Married               | 0.421*** [0.037]  | 0.438*** [0.034]  | 0.425*** [0.036]  | 0.442*** [0.034]  |
| Unemployed            | –0.388** [0.161]  | –0.381** [0.149]  | –0.383** [0.160]  | –0.375** [0.147]  |
| Church attendance     | 0.040*** [0.012]  | 0.041*** [0.012]  | 0.040*** [0.011]  | 0.040*** [0.012]  |
| Trust in others       | 0.327*** [0.060]  | 0.309*** [0.059]  | 0.326*** [0.061]  | 0.308*** [0.059]  |
| Self-reported health  | 0.712*** [0.033]  | 0.708*** [0.033]  | 0.712*** [0.033]  | 0.708*** [0.033]  |
| Welfare expenditures  | –                 | 0.016 [0.015]     | –                 | 0.016 [0.015]     |
| GDP                   | –                 | –0.000 [0.000]    | –                 | –0.000 [0.000]    |
| Unemployment rate     | –                 | –0.082** [0.029]  | –                 | –0.082** [0.029]  |
| Individualism         | –                 | 0.070 [0.056]     | –                 | 0.069 [0.056]     |
| Constant              | 4.458*** [0.257]  | 4.884*** [0.639]  | 4.401*** [0.265]  | 4.822*** [0.645]  |
| R <sup>2</sup>        | 0.20              | 0.21              | 0.20              | 0.21              |
| N                     | 14,273            | 14,273            | 14,273            | 14,273            |

Dependent variable: self-reported life satisfaction (1–10)

Cell entries are OLS regression coefficients, country-clustered standard errors in brackets

\*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$ ; two-tailed test

deviation above leads to over a full standard deviation increase in a country's aggregated level of life satisfaction.<sup>6</sup>

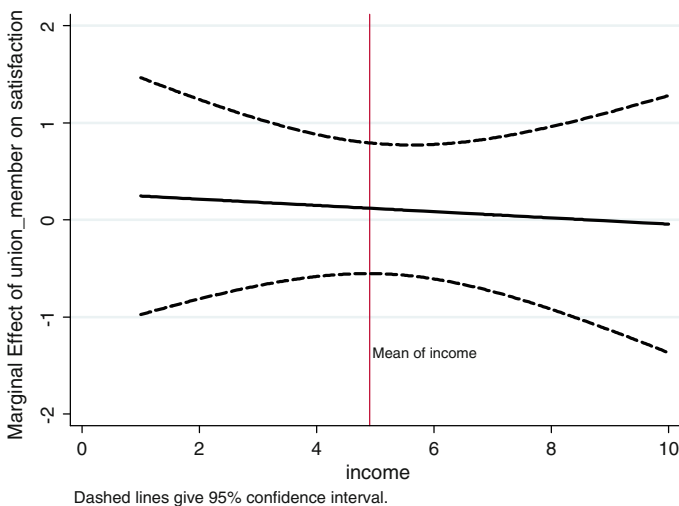
We next examine whether being a member of a labor union leads to higher levels of life satisfaction. We first regress life satisfaction on only a set of individual-level controls, clustering the errors by country. The results are displayed in Table 2, Column 1. We find that the coefficient for union membership is positive and statistically significant. Substantively, union members report being about one-tenth of a point higher on the life satisfaction scale than non-members. The control variables we include in the model generally behave as expected, with married respondents, those who are healthier, and those with greater interpersonal trust reporting higher levels of satisfaction and those who are unemployed reporting lower levels. These same results hold when the set of country-level controls are added into the model (Column 2).

<sup>6</sup> These results are robust to the inclusion of additional variables that measure a country's culture, political ideology, and general disposition toward labor unions. Specifically, we added country-level mean values for post-materialism (to control for the general culture of a country, y001), political ideology (to control for a progressive cultural outlook, v114), and general trust of labor unions (to control for political receptivity to the demands of organized labor, v135) from the 2005 wave of the WVS to the model specification for Table 1 and all subsequent individual-level models (Tables 2 and 3). In all models, the coefficient for union density and/or union membership remains statistically significant and its substantive impact is of a similar magnitude.

We then examine whether the relationship between union membership and life satisfaction varies with a respondent's income status. As described above, we do so by including an interaction term between union membership and income, the main effects, and a set of controls in a model that predicts life satisfaction. In Table 2, we report the results of regressing life satisfaction on this interaction term using just individual-level controls (Column 3) and again when adding the country-level controls (Column 4). We find that the interaction between union membership and income is negative, indicating that being a member of a labor union boosts life satisfaction most among respondents with lower incomes and least among those with high incomes. To illustrate the substantive significance of this interaction relationship between union membership and income, we display a graph in Fig. 1 that shows the declining boost that union membership has on life satisfaction as a respondent's income increases using predicted values based on the coefficient estimates reported in Table 2, Column 4. Notice that as income values increase along the x-axis, the predicted "boost" that being a member of a union has on life satisfaction declines.

Next, we assess at the individual level whether living in a country with higher levels of union density leads to higher levels of life satisfaction. To do so, we run a set of models that include the same individual level controls as above but also include a measure of the union density in a respondent's country. We find that the results at the country level reported in Table 1 extend to the individual level as well—respondents living in countries with higher levels of union density report being more satisfied with their lives even after controlling for a host of other predictors (see Table 3, Column 1). Substantively, moving from a country with a union density one standard deviation below the mean to a country one standard deviation above leads to about a quarter of a standard deviation increase in reported levels of life satisfaction.

Finally, we assess whether the impact of union density on life satisfaction applies only to union members or to non-members as well. To do so, we run models that are specified only for union members (Table 3, Column 2) and then again only for non-members



**Fig. 1** The moderating effect of income. Figure generated using the coefficients from the model reported in Table 2, column 4

**Table 3** Union density and individual-level life satisfaction

|                      | (1)               | (2)              | (3)               |
|----------------------|-------------------|------------------|-------------------|
|                      | Sample            |                  |                   |
|                      | All respondents   | Union members    | Non-union members |
| Union density        | 0.009*** [0.003]  | 0.008*** [0.002] | 0.010*** [0.003]  |
| Income               | 0.071*** [0.014]  | 0.043** [0.015]  | 0.081*** [0.015]  |
| Education            | -0.017 [0.014]    | -0.025 [0.022]   | -0.013 [0.014]    |
| Female               | 0.092** [0.033]   | -0.017 [0.069]   | 0.124*** [0.035]  |
| Age                  | -0.045*** [0.007] | -0.027* [0.015]  | -0.050*** [0.007] |
| Age <sup>2</sup>     | 0.001*** [0.000]  | 0.000** [0.000]  | 0.001*** [0.000]  |
| Married              | 0.447*** [0.038]  | 0.453*** [0.074] | 0.449*** [0.036]  |
| Unemployed           | -0.380** [0.151]  | -0.414* [0.200]  | -0.367** [0.153]  |
| Church attendance    | 0.042*** [0.012]  | 0.024*** [0.005] | 0.045*** [0.014]  |
| Trust in others      | 0.257*** [0.047]  | 0.223*** [0.053] | 0.264*** [0.052]  |
| Self-reported health | 0.712*** [0.034]  | 0.678*** [0.065] | 0.722*** [0.033]  |
| Welfare expenditures | -0.009 [0.013]    | -0.013 [0.014]   | -0.007 [0.013]    |
| GDP                  | -0.000 [0.000]    | 0.000 [0.000]    | -0.000 [0.000]    |
| Unemployment rate    | -0.053 [0.033]    | 0.011 [0.035]    | -0.064* [0.032]   |
| Individualism        | 0.059 [0.047]     | 0.045 [0.051]    | 0.067 [0.048]     |
| Constant             | 5.051*** [0.516]  | 4.065*** [0.682] | 5.147*** [0.573]  |
| R <sup>2</sup>       | 0.21              | 0.19             | 0.22              |
| N                    | 14,468            | 3,369            | 10,904            |

Dependent variable: self-reported life satisfaction (1–10)

Cell entries are OLS regression coefficients, country-clustered standard errors in brackets

\*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$ ; two-tailed test

(Column 3). We find that the boost that union density has on life satisfaction applies to both members and non-members, and that the magnitude of the effect is roughly equal for both groups. Regardless of a particular respondent's union affiliation, more heavily unionized countries appear to have more satisfied citizens.<sup>7</sup>

## 5 Conclusion

We can summarize our main conclusions concisely. The principal finding is that mean levels of life satisfaction vary directly with union density and union membership, even when salient economic conditions and other important national level characteristics are controlled for. Importantly, this relationship holds when controlling for the level of welfare

<sup>7</sup> To assess the intervening mechanisms that link union membership and life satisfaction, we ran a series of additional models. Specifically, we regressed (separately) three factors linked to life satisfaction in previous studies on our indicator of union membership. The three possible mechanisms were: (1) the extent of free choice and control over one's own life (v46), (2) satisfaction with one's household financial situation (v68), and (3) how much independence one has while doing tasks at work (v246). For all three factors, the coefficient for union membership is positive and bounded above zero ( $p < .01$ ), indicating that being a member of a labor union positively predicts these three important factors that lead to higher levels of life satisfaction.

state social expenditures across countries, which has been demonstrated to affect strongly life satisfaction (Pacek and Radcliff 2008a, b). Our individual-level findings are perhaps more intriguing. While confirming the primary hypothesis that subjective well-being is positively affected by unions, we also demonstrate that income does indeed have a moderating effect on this relationship. To sum as bluntly as possible, it is the most vulnerable members of society who are most positively affected by membership in and the influence of organized labor in the industrial world. In addition, we confirm Radcliff's (2005) principal finding of interest that labor unions not only affect their own members, but society in general. While lower status citizens are clearly the main beneficiaries of organized labor's efforts, those benefits are diffused through society at large. Perhaps most crucially, we demonstrate that even in an era of declining union status across the industrial world that organized labor still affects life satisfaction to a significant extent.

In contributing to the scant empirical research on this subject, we hope to further broaden the understanding and debate over the salience of organized labor as a determinant of important social consequences. The literature on subjective well-being is reasonably clear that there are very real consequences to varying levels of happiness, especially with regard to health related issues. It stands to reason therefore that for all the positive and negative attention labor unions receive in discourse, that their importance may be heightened if indeed it can be shown that they contribute indirectly to the felicitous consequences of subjective well-being. As scholars from various subfields work to identify the pathways to happiness and life-satisfaction, we feel confident that labor unions can be included as a vital set of actors facilitating this.

We do not of course contend that we provide a final word regarding the broader value of organized labor, both intellectually and substantively. Certainly the literatures in political science, economics, sociology, and psychology are rich with contributions toward the ideological debate about the desirability of unions. We can not, and do not speak to these salient debates about whether labor unions are good or bad for economic productivity, job creation or loss, inflation, voter turnout, or a host of related tangible issues. What we can offer, however, is an empirically supported observation that organized labor makes a positive contribution to the quality of life of citizens in industrial democracies. Whatever other consequences may be attributed to labor unions regarding economic or social areas, they do appear to contribute to the degree to which people find their lives satisfying. This at least suggests that at least one highly salient evaluative standard can be applied to this type of organization. And while we have shown that even at a time when labor continues to struggle for a place in political decision-making in many western polities it continues to play a positive role in human well-being, one can rightly ask whether we are observing the impact of a transitory phenomenon. Assuming organized labor continues to decline at current rates, especially in countries like the United States, what then might we speculate about a concomitant impact on human well-being as a result?

Our study also speaks to the growing literature on happiness and life-satisfaction by highlighting its hitherto failure to account for the role of organized political actors in promoting (or hindering) well-being. While economists and to a lesser extent other social scientists have long held income under the spotlight for its role in promoting happiness, few have bothered to focus on citizens' broader role in the market economy beyond that of mere wage earners. While income clearly matters as we have demonstrated here, so too does the position of citizens in the class structure germane to market economies. Labor unions not only represent the interests of their members in the machinery of the economy, but provide psychological, emotional, and group solidarity support as well. It is thus incumbent on scholars to broaden their understanding of determinants of subjective

well-being to particular organized actors that might, in their own ways, mitigate the broader effect of social, cultural, economic, and demographic factors. Our express hope is that this analysis has moved the discussion forward in at least this regard.

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