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Institutions and Life Satisfaction

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Abstract

The degree to which people are satisfied with their lives is affected by many factors. This chapter surveys studies that document the influence of one such factor – formal institutions (i.e., written rules). Such rules, typically laws that enable and constrain political, legal, and economic decision-making, have the potential to affect how satisfied people are with their lives in at least two ways. First, there can be *direct effects* in that rules either enable certain individual choices or constitute constraints on the individual's choice set; furthermore, such effects can be of a "symbolic" kind: certain types of rules are valued for their character. Second, there can be *indirect effects* in that rules shape the overall

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character of society, through the actions that are, and that are not, taken by people. This character – in the form of various outcomes of the rules that function as mediators – can influence individual life satisfaction within a society. The present review of the literature identifies empirical studies that link formal political, legal, and economic institutions to subjective well-being – primarily in the form of life satisfaction, but in some cases in the form of happiness. Some main results can be summarized as follows: Political institutions are related to life satisfaction through democracy and direct democracy; legal institutions seem able to boost life satisfaction by being effective, fair, and inclusive; and economic institutions that strengthen the role of markets in society are positively related to life satisfaction (as are some "complementary" regulations of employment and welfare-state policies). In all, it is demonstrated that the incorporation of formal institutions into studies of life satisfaction is essential, and that careful design, or reforms, of institutions has the potential to increase – or decrease – life satisfaction in society.

Introduction

All constitutions of government . . . are valued only in proportion as they tend to promote the happiness of those who live under them. This is their sole use and end. –Adam Smith in *The Theory of Moral Sentiments*

One of the primary aims – perhaps *the* primary aim – of most individuals is to experience satisfying lives, i.e., lives that, upon reflection, provide subjective well-being. Likewise, when looking at the aggregate level, many would deem it desirable with a high degree of average life satisfaction since it indicates that individuals in a country or region tend to experience satisfying lives. Against this background, it becomes important to identify key factors that determine life satisfaction in a society.

Reflecting the importance of this topic, there is a vast literature on what makes life satisfying to people surveyed by, e.g., Diener et al. (2011). In the present contribution, the focus is on one key factor: *formal institutions*. North (1991, p. 97) uses the following, widely accepted definition: "Institutions are the humanly devised constraints that structure political, economic and social interaction. They consist of both informal constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules (constitutions, laws, property rights)." This chapter is a review of empirical studies that relate three types of formal institutions (political, legal, and economic) to life satisfaction. In total, 37 studies on political institutions (e.g., the degree of democracy), 15 studies on legal institutions (e.g., the strength of the rule of law), and 61 studies on economic institutions (e.g., the level of economic freedom) are included, with summaries of what type of relationship they each look at and their main findings. The chapter does thus not explore the equally voluminous literature on how informal institutions, including trust, norms, and ideology, affect well-being.

The main outcome variable of interest is life satisfaction, by which is meant how people evaluate their life as a whole (rather than express their current feelings). It corresponds to the first of two elements of subjective well-being, which is defined as "a person's cognitive and affective evaluations of his or her life" (Diener et al. 2011, p. 187). The main reason for focusing on life satisfaction is that formal institutions primarily can be expected to influence more considered evaluations of well-being. The second element of subjective well-being concerns affective evaluations, or happiness, and while there are some studies that use it as outcome variable, and while they are included in this review, directly emotive evaluations are perhaps not to be expected to as clearly relate to large-scale and rather stable formal rules in society (cf., Kahneman and Krueger 2006; Diener et al. 2013; Nikolova 2016).

The literature on both life satisfaction and happiness is based on subjective, survey-based measures. The typical life satisfaction question is: "All things considered, how satisfied are you with your life as a whole these days?" The replies are typically given on a 1–10 scale. An alternative approach for measuring life satisfaction is to use the Cantril ladder scale, based on the question: "Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?" (from the Gallup World Poll). The typical happiness question is: "Taking all things together, would you say you are (i) Very happy, (ii) Rather happy, (iii) Not very happy, or (iv) Not at all happy?". Both of these form part of the World Values Survey. For more on different measures of well-being and their comparability, see Bjørnskov (2010) and ▶ "Measuring Subjective WellBeing" and ▶ "The Economics of Happiness".

The remainder of the chapter contains the following: a brief, overall theoretical framework (section "A Brief Theoretical Framework"); a clarification of the basis for the selection of the included studies (section "The Selection Criteria for Included Literature"); a presentation, in three subsections, of the findings by type of formal institution (section "Institutions and Life Satisfaction: Empirical Evidence"); and a summary (section "Summary"), including an assessment of what steps researchers in this field may wish to take next.

A Brief Theoretical Framework

As clarified by Diener et al. (2011), on the micro level, there are three main theoretical approaches to explaining life satisfaction. The first is needs-based and posits that life satisfaction is achieved when various needs are met. The second is activity-based and states that life satisfaction appears when a person is engaged in activities that are experienced as meaningful. The third is about genetic and personality-predisposition theories, indicating that there is a rather stable level of life satisfaction that is rooted in one's personality. The approach *here* is macrooriented in the sense that it connects rules that typically apply at the country or state level to the way individuals experience their lives.

With regard to needs, these can be of different kinds – one way of classifying them is into materialist and post-materialist needs. As for the first kind, people tend

to want material resources to feel safe and secure and, beyond that, such resources to purchase goods and services they believe will make their lives better. It is clear that formal institutions are among the most important determinants of economic development (Acemoglu et al. 2005) and, as such, central for the satisfaction of needs requiring economic resources. Likewise, institutions affect the distribution of material resources, and needs may also relate to one's status and relative standing in society (cf. Berggren 1999; Acemoglu and Robinson 2000; Bennett and Nikolaev 2016, 2017a). As for the second kind, Inglehart (2008) stresses that many societies, especially in the West, have undergone a change in what kind of values that dominate, from ones that emphasize the material side of life to post-materialist ones that emphasize self-expression and autonomy. Needs that relate to this kind of values can be expected to be affected by formal institutions as well, in the sense that rules determine the action space of individuals – whether what they think needs to be done can (legally) be done, both in politics, in civil society, and in the economy - and in the sense that needs may refer to the character of rules. This character can, e.g., relate to procedural utility (Frey et al. 2004) - do the rules allow one to participate? – or to issues of fairness and justice – are the rules general or discriminatory? While the satisfaction of material needs is an indirect effect of formal institutions – it is the resources that human productive efforts generate that satisfy the needs, and these productive efforts are a function of formal institutions- the satisfaction of post-materialist needs is a direct effect; the rules as such give rise to satisfaction (or a lack thereof).

With regard to activities formal institutions are potentially important as well, since such institutions enable and constrain many of the activities that humans can engage in. In particular, effective judicial institutions entail protection from threats to one's life, livelihood, and property and thus, reduce uncertainty. One may also expect freedom as an aspect of institutions to be particularly important here: By allowing a very broad set of activities, the probability that individuals, whose preferences as to what to do with and in life differ, will find meaningful things to do should be high as a result (Inglehart 2008). This can occur in different spheres of society – people may find it meaningful to participate in politics and (be allowed to) vote; they can find enjoyment in doing a certain kind of work and in running their own business; etc.

Hence, there are theoretical reasons to expect formal institutions to affect life satisfaction (and, perhaps to a lesser extent, happiness). They are illustrated in Fig. 1.

The top arrow illustrates the *direct* influence of formal institutions on life satisfaction – e.g., the result of satisfying post-materialist needs or of engaging in activities that are intrinsically meaningful to the individual. The two bottom arrows illustrate the *indirect* influence of formal institutions on life satisfaction – i.e., formal institutions generating various outcomes that *in turn* affect how people experience their lives. It bears noting that in the empirical literature, the direct and indirect effects of institutions cannot always be separated.

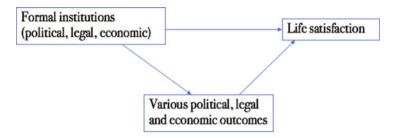


Fig. 1 Links between formal institutions and life satisfaction

The Selection Criteria for Included Literature

This section contains a specification of the basis for selecting studies to include in this review. The selection criteria for included literature relating formal institutions to life satisfaction are:

- Only empirical studies are included; purely theoretical work is not covered. This does not rule out that there are theoretical parts of the empirical studies indeed, that is generally the case but the theoretical parts are not highlighted here.
- The empirical studies use survey findings as the source of data.
- The unit of analysis, when it comes to life satisfaction, is either the individual or an aggregate of individuals (typically in a region or country), in which case average values are used.
- Most studies have life satisfaction as the dependent variable. The majority uses the standard life-satisfaction question, but some use the Cantril ladder scale. Studies using the standard happiness question as the dependent variable are also included, but these are relatively few. Studies dealing with domain satisfaction (e.g., job satisfaction) or with features of society (e.g., satisfaction with institutions themselves or with organizations) are not included. Nor do we cover studies of more objective well-being indicators such as life expectancy, health, and income (see instead, e.g., Ruseski and Maresova 2014, Nikolaev and Bennett 2016, Pitlik and Rode 2016, and Hall et al. 2018).
- The main explanatory variables are indicators of formal institutions (i.e., "written rules") in politics, the legal sphere and in the economic realm. These can be of a *de jure* or a de facto type either the measure indicates objective properties (e.g., the existence of a certain rule as a matter of legal fact) or the degree to which a rule functions in practice in accordance with its rationale. Informal institutions, i.e., culturally transmitted norms that do not take written form but which can nevertheless influence behavior, are not included not because the relationship between such institutions and life satisfaction is uninteresting (quite the opposite) but because of space and focus. Some further comments regarding the three types of formal institutions that are looked at:

- Political formal institutions refer to the rules enabling and constraining the
 political system and, in the usual case in the studies covered here, to a certain
 political system or practice enabled by a set of underlying rules (e.g., "democracy," "referendum," "bicameral legislature," etc.).
- Legal formal institutions refer to the rules enabling and constraining the legal system (while being part of the legal system but constituting rules on a "higher" level). In the usual case in the studies covered here, what is analyzed tends to be specific legal rules or practices enabled by underlying rules (e.g., "rule of law," "human rights," "judicial independence," "judicial review," etc.). In a basic sense, all formal institutions are legal institutions, but they are sorted into the three groups depending on the societal sphere in which they mainly apply.
- Economic formal institutions refer to the rules enabling and constraining economic activities and, in the usual case in the studies covered here, to a certain economic system or practice enabled by the underlying rules (e.g., "economic freedom," "protection of property rights," "free trade" or "regulation," etc.). Note that economic outcomes, such as GDP/capita, unemployment or economic growth, are not part of economic institutions (even though institutions can affect life satisfaction via economic outcomes). When it comes to economic policy, it is sometimes hard to separate it from economic institutions that typically constrain policy choices, but in general, institutions are considered a more long-term and stable type of rule than policies, which tend to often be changed according to the present agenda of those in power (Williamson 2000). Institutions rather than policies are primarily included.
- It is sometimes also difficult to separate the three types of institutions, especially the legal and economic ones, since the latter tend to have a distinct legal component. Furthermore, many studies include more than one type of institution, in which case it is presented as studying each type of institution separately.
- The stated causal direction of the studies surveyed here is from formal institutions to life satisfaction, not the other way around. This is not to say that the latter causal direction is uninteresting or ruled out it is just a matter of retaining a clear focus. However, it bears noting that in most studies, it is not possible to rule out reverse causality or other aspects of endogeneity, which is reason for caution when interpreting the results.
- As for the type of publications that are included, they are articles published in scientific journals with peer review and book chapters published by academic publishers. Unpublished work is not part of the review.
- The main literature search has been carried out by means of Google Scholar. Only works in English have been considered.
- A temporal restriction has been applied, restricting the search to publications from 2000 onwards. Dolan et al. (2008) provide a survey of the earlier literature (cf. Bennett et al. 2016).
- Both individual-level and aggregate-level studies are included.

Institutions and Life Satisfaction: Empirical Evidence

This section presents 37 studies on political institutions and life satisfaction (section "Political Institutions"), 15 studies on legal institutions and life satisfaction (section "Legal Institutions") and 61 studies on economic institutions and life satisfaction section "Economic Institutions"). Some of these studies are presented in several places, when they include analyses of two or three types of institutions; hence, the total number of studies is lower than 113.

The structure is such that each subsection begins with an empirical illustration. Next, a table summarizes the studies very briefly by giving (in alphabetical order) authors, the years of publication, the titles, the main dependent variable(s), the main explanatory variable(s), and the main findings. Obviously, this kind of summary abstracts from most details of each work; the point is to provide an accessible list of relevant studies for anyone who is interested in how formal institutions relate to life satisfaction. Readers are strongly recommended to locate the studies and read them carefully; not least, it is advisable to do so before drawing conclusions about the conditions under which institutions are associated with life satisfaction. Each study is different, and many elements can affect the results. That being said, after each table, a tentative assessment of what the literature finds is offered.

Political Institutions

Figure 2 illustrates the simplest association between political institutions and life satisfaction by reporting the most recent data on life satisfaction from the World

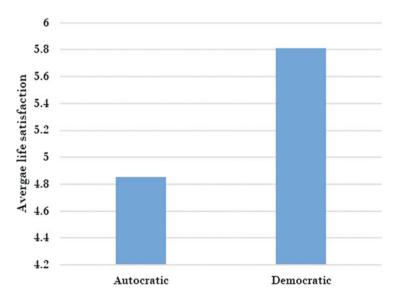


Fig. 2 Democracy and life satisfaction

Happiness Report (Helliwell et al. 2019). The scores are averaged across countries that are autocratic and democratic, respectively, according to the dichotomous measure in Bjørnskov and Rode (2020). The average in the former group is 4.85 while it is 5.81 in the latter, indicating that an association may exist.

In Table 1, studies relating formal political institutions to life satisfaction or happiness are presented.

The main findings can be summarized as follows:

- Democracy: Quite a few studies indicate that democracy is not related to life satisfaction in a robust manner; however, it seems to be the case that when democracy does relate to life satisfaction in a significant way, it usually occurs in high-income countries or among high-income individuals in a country. This may be taken to imply that democracy matters once people have reached a certain level of material comfort and safety. On the other hand, there are signs that former Communist countries experienced more life satisfaction after turning to democracy.
- Direct democracy: A number of studies indicate that direct democracy can have beneficial effects on life satisfaction, both by political decisions being more aligned with the preferences of people in general and by procedural utility (valuing the ability to participate). However, these studies tend to use data from a rather special country, Switzerland; and even for that country, there are some studies that do not find such a positive effect. Still, results from US states give some support for a positive effect of popular initiatives, pointing at a possible role of direct democracy for life satisfaction. To the extent that it matters, it does so in a positive way.
- Other political institutions:
 - Electoral system: In the OECD, proportional representation is associated with higher life satisfaction than a majoritarian system. However, this result may not generalize: in a larger sample a combination of Parliamentarism and proportional elections does not yield superior outcomes in terms of life satisfaction.
 - Executive: In the OECD, there is more life satisfaction if the executive is chosen by the legislature than if it is a President, but taking other studies into account, this result does not seem to generalize in a robust way.
 - Decentralization: In the OECD, a unitary system is associated with higher life satisfaction than a federal system; but studies with larger samples find that regional self-rule is positive for life satisfaction. In Indonesia, the presence of local elections cannot be shown to yield more happiness.
 - *Chambers in the legislature:* Bicamerialism is related to more life satisfaction than when the legislature only has one chamber.

Table 1 Studies on political institutions and life satisfaction

Authors, vear			Main explanatory		
of publication Title	Title	Dependent variable(s)	variable(s)	Sample, years	Main results
Altman et al. (2017)	Democratic institutions and subjective well- being	Life satisfaction	Various indicators of democratic institutions	21 OECD countries, 1981–2008	People are more satisfied with their lives in countries with a parliament-based (rather than presidential) executive, a proportional representation electoral system (as opposed to single member districts) and a unitary (rather than federal) governmental structure
Bavetta et al. (2017)	More choice for better choosers: political freedom, autonomy, and happiness	Happiness	Individual autonomy, political freedom (degree of autocracy/ democracy)	190,000 individuals, 69 countries, 1981– 2008	Autonomy and political freedom have favorable effects on the degree of happiness people experience, and they reinforce each other in producing happiness
Bjørnskov (2003)	The happy few: cross- country evidence on social capital and life satisfaction	Life satisfaction	Gastil index of democratization	32 countries, 1993	The Gastil index enters with the "wrong" sign (more democracy is negatively related to life satisfaction) and is statistically insignificant. What matters is social capital
Bjørnskov et al. (2007)	The bigger the better? Evidence of the effect of government size on life satisfaction around the world	Life satisfaction	Gastil index, political competition	74 countries, 1997–2001	No support for an effect of democracy; no robust support for an effect of political competition

Table 1 (continued)

Authors, year			Main explanatory		
of publication Title	Title	Dependent variable(s)	variable(s)	Sample, years	Main results
Bjørnskov et al. (2008a)	Bjømskov Cross-country et al. (2008a) determinants of life satisfaction: exploring different determinants across groups in society	Life satisfaction	Gastil index, Polity IV democracy index, number of years as democracy, number of years of independence, number of chambers in the legislature, monarchy	90,000 individuals, 70 countries, 1997– 2000	The measures of democratic institutions exert no significant effect on individual life satisfaction. Years of independence and bicameral parliaments are robustly and positively related to life satisfaction
Bjømskov et al. (2008b)	Bjørnskov On decentralization and et al. (2008b) life satisfaction	Life satisfaction	Political decentralization, measured by constitutional stipulations which grant exclusive rights to legislate	60,000 individuals, 66 countries, 1997– 2001	No statistically significant direct relationships; however, local autonomy has a positive, indirect effect in that public goods provision impacts life satisfaction less negatively the more autonomy there is
Bjømskov et al. (2010)	Formal institutions and subjective well-being: revisiting the cross-country evidence	Life satisfaction	Principal component "political factor" (incl. Gastil index, Polity IV democracy index, the operation of the democratic process, strength of political veto players)	149 countries, 1981–2005	Political factors seem to matter in middle- and high-income countries but not very much in low-income countries, suggesting, e.g., that democratization is beneficial when countries have reached a certain level of economic development at which most basic needs are met for most people.

Bjørnskov and Tsai (2015)	How do institutions affect happiness and misery? A tale of two tails	Four categories of life satisfaction	Democracy	89 countries, 1981–2010	Democracy shifts only the upper part of the distribution in poor countries, while it shifts the entire distribution in rich countries, in the direction of more life satisfaction
Diaz-Serrano and Rodríguez- Pose (2012)	Decentralization, subjective well-being, and the perception of institutions	Life satisfaction	Self-rule (the authority exercised by regional governments over those who live in the region), shared-rule (authority over national politics and policy as a whole)	112,000 individuals, 30 European countries, 2002–2008	Self-rule is positively and statistically significantly related to life satisfaction (unlike shared rule)
Dom et al. (2007)	Is it culture or democracy? The impact of democracy and culture on happiness	Happiness	Two indicators of democracy (Polity IV, Freedom House) and how they changed 10 years before happiness is measured	26,000 individuals, 28 countries, 1998	There is a significant positive relationship between democracy and happiness even when controlling for income and culture (language and religion). The effect is stronger in countries with an established democratic tradition
Dom et al. (2008)	Direct democracy and life satisfaction revisited: new evidence for Switzerland	Life satisfaction	Direct democracy	16,000 Swiss individuals, 2000– 2002	When controlling for languages at the individual level, the measured impact of cantonal direct democracy on life satisfaction is no longer statistically significant
Frey et al. (2001)	Outcome, process and power in direct democracy: new econometric results	Life satisfaction	A composite index for direct democratic rights	6,000 Swiss individuals, 1992	The more developed the institutions of direct democracy, the higher the reported satisfaction with life of the population, and the higher the utility derived from participation in the political process

Table 1 (continued)

Authors, year of publication	Title	Dependent variable(s)	Maın explanatory variable(s)	Sample, years	Main results
Frey and Stutzer (2000a)	Happiness prospers in democracy	Life satisfaction	A composite index for direct democratic rights, a dummy variable for citizens' meeting	6,000 Swiss individuals, 1992– 1994	The better developed the institutions of direct democracy, the higher the life satisfaction. This is not only due to more favorable political decisions but also due to utility from the possibility of participating in direct democracy
Frey and Stutzer (2000b)	Happiness, economy and institutions	Life satisfaction	A composite index for direct democratic rights, a dummy variable for citizens' meeting, federalism	6,000 Swiss individuals, 1992– 1994	Individual participation possibilities in the form of initiatives and referenda, and of decentralized (federal) government structures, raises life satisfaction
Frey and Stutzer (2001)	Constitution: popular referenda and federalism	Life satisfaction	A composite index for direct democratic rights, index of local autonomy (federalism)	6,000 Swiss individuals, 1992– 1994	More extensive political participation rights, as well as more autonomous communes, increase people's life satisfaction over and above demographic and economic factors, also when controlling for language
Frey and Stutzer (2005)	Beyond outcomes: measuring procedural utility	Life satisfaction	A composite index for direct democratic rights, actual voting	6,000 Swiss individuals, 1992– 1994	Citizens, as well as foreigners, living in jurisdictions with more developed political participation rights enjoy higher life satisfaction. The results hold when controlling for language. Actual voting is not a statistically significant predictor of life satisfaction

Frijters et al. (2004)	(2004) Patterns and determinants of life satisfaction in Germany following reunification	Life satisfaction	Political freedom (inferred)	26,000 East Germans, 1991–1999; 109,000 West Germans, 1985– 1999	Average life satisfaction significantly increased for East Germans, particularly in the immediate period after reunification, partly due to improvements in the political and social environment
Hayo (2007) Happiness an empirica Eastern Eu	Happiness in transition: an empirical study on Eastern Europe	in transition: Life satisfaction al study on rope	Degree of civil liberties 7,000 individuals in and political rights 8 Central or East European countries, 1991	7,000 individuals in 8 Central or East European countries, 1991	More political rights and civil liberties are positively associated with national life satisfaction
Helliwell and How's your Huang government (2008) Internations linking goo government being	How's your government? International evidence linking good government and wellbeing	Life satisfaction	Democratic quality (voice and accountability, political stability), electoral system, presidentialism	163,000 individuals, 75 countries, 1981–2004	Democratic quality is positively related to life satisfaction in richer countries, indicating that countries with higher levels of per capita incomes are far more likely to be become and remain democracies. Proportional voting is associated with higher life satisfaction, unlike majoritarian systems
Helliwell et al. (2018)	Empirical linkages between good governance and national well-being	Life evaluation with Cantril ladder scale	Democratic quality (voice and accountability, political stability, and absence of violence)	157 countries, 2005–2012	Service delivery quality is more important for life satisfaction than democratic quality until delivery quality has reached certain levels. After that democratic quality exerts a positive influence on life satisfaction

Table 1 (continued)

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Authors, year of publication	Title	Dependent variable(s)	Main explanatory variable(s)	Sample, years	Main results
	Democracy and happiness: what causes what?	Happiness	Democracy (Freedom House index)	39 countries, 1972–2006	A society's level of democracy in 1991–1996 had only a modest impact on its subsequent level of happiness. A society's level of democracy in 1991–1996 seems to have more impact on <i>changes</i> in happiness than on <i>levels</i> of happiness. Democratization does not necessarily bring happiness
	Development, freedom, and rising happiness: a global perspective (1981–2007)	Well-being (average of happiness and life satisfaction)	Democracy (Polity IV), change in democracy	52 countries, 1981–2007	Since 1981, economic development, democratization and increasing social tolerance have increased the extent to which people perceive that they have free choice, which in turn has led to higher well-being
i	Genes, culture, democracy, and happiness	Well-being (average of happiness and life satisfaction)	Democracy (Freedom House index)	105 countries, 1972–	Democracy does not seem robustly related to well-being; some indications that low well-being precedes changes in political institutions and that high well-being provides institutional legitimacy and stability
	Bureaucratic rents and life satisfaction	Difference in life satisfaction between bureaucrats and people in private sector	Political checks and balances	40,000 Europeans, 40,000 Latin Americans, 42 countries, 1989– 2005	Bureaucratic rents, measured by bureaucrats' additional life satisfaction, tend to be lower when there is no alignment between the legislature and the executive

Orviska et al. (2014)	The impact of democracy on well-being	Life satisfaction, happiness	Satisfaction with democracy	22,000 individuals, 28 countries, 1999– 2001	Satisfaction with democracy predicts life satisfaction and happiness, but not for men or rich people or in rich countries
Ott (2010a)	Good governance and happiness in nations: technical quality precedes democracy and quality beats size	Life evaluation with Cantril ladder scale	Technical quality of governance, democratic quality	127 countries, 2006	Technical quality correlates with happiness in rich and poor nations, while democratic quality only correlates with happiness in rich nations
Ott (2011)	Government and happiness in 130 nations; good governance fosters higher level and more equality of happiness	Life evaluation with Cantril ladder scale, its inequality	Technical quality of governance, democratic quality	130 countries, 2006	There is a positive relation between the technical quality of governance and average happiness in nations. There is a bell-shaped relation with inequality of happiness. Big government adds to happiness only when its quality is good. Democratic quality adds to happiness once the technical quality is of reasonable size
Owen et al. (2008)	Democracy, participation, and life satisfaction	Life satisfaction	Democracy, competitiveness of executive recruitment, constraints on the executive, electoral system, presidentialism/ parliamentarism	84,000 individuals, 46 countries, n.a.	There is a positive correlation between democracy and individual life satisfaction but no differences across competitiveness of executive recruitment, constraints on executive power or types of electoral system. Minorities in parliamentary systems are less happy than those in presidential ones

Table 1 (continued)

Authors, year of publication Title	Title	Dependent variable(s)	Main explanatory variable(s)	Sample, years	Main results
Radeliff and Shufeldt (2016)	Direct democracy and subjective well-being: the initiative and life satisfaction in the American states	Life satisfaction	Number of initiatives, whether a state constitution allows for initiatives	45,000 individuals, 48 US states, 1960– 1998	Satisfaction varies positively with the extent to which initiatives are used and with there being a possibility to arrange initiatives. This relationship is mediated by income, such that the positive effects of direct democracy are most pronounced for those with the lowest income
Rode (2013)	Do good institutions make citizens happy, or do happy citizens build better institutions?	Life satisfaction	Electoral democracy	87 countries, 1995– 2008	Citizens in developing countries value the procedural aspects of democracy
Rode et al. (2013)	Economic freedom, democracy, and life satisfaction	Life satisfaction	Electoral democracy	87 countries, 1995– 2008	Electoral democracy is positively related to life satisfaction
Rodríguez- Pose and Maslauskaite (2012)	Can policy make us happier? Individual characteristics, socioeconomic factors and life satisfaction in Central and Eastern Europe	Life satisfaction	Regional autonomy	15,000 individuals, 10 countries, 10,000 individuals, 10 countries, 2008	Greater levels of political decentralization are associated with a greater degree of life satisfaction. The coefficient for regional autonomy is positive and significant
Stadelmann- Steffen and Vatter (2012)	Does satisfaction with democracy really increase happiness? Direct democracy and individual satisfaction in Switzerland	Life satisfaction	Direct democracy (right, 5,600 individuals, participation) 26 Swiss cantons, 2006	5,600 individuals, 26 Swiss cantons, 2006	No evidence is found for a causal relationship between direct democracy and life satisfaction

Stutzer and Frey (2006)	Political participation and procedural utility: an empirical study	Life satisfaction	Direct democracy	6,000 individuals, 26 Swiss cantons, 1997	Citizens, as well as foreigners, living in juris- dictions with more extended political participation possibilities enjoy higher levels of life satisfaction. The effect is smaller for foreigners, reflecting their exclusion from procedural utility
Sujarwoto and Tampubolon (2015)	Decentralization and citizen happiness: a multilevel analysis of self-rated happiness in Indonesia	Happiness	Political decentralization 29,000 individuals, 262 Indonesian districts, 2007	29,000 individuals, 262 Indonesian districts, 2007	The existence of local elections is not related to happiness
Veenhoven (2000)	Freedom and happiness: Happiness a comparative study in 46 nations in the early 1990s	Happiness	Political freedom (Freedom House)	46 countries, early 1990s	No significant relationship with happiness
Welsch (2003)	Freedom and rationality as predictors of crossnational happiness patterns: the role of income as a mediating variable	Happiness	Political freedom (Freedom House)	54 countries, 1990– 1995	Happiness is positively related to political freedom as well as to rationality at high freedom/rationality levels and negatively at low levels. Freedom affects happiness only indirectly (through its impact on income)

All studies contain results for other explanatory variables, but these are not as a rule reported here, since the focus is on political institutions. The listing is in alphabetical order

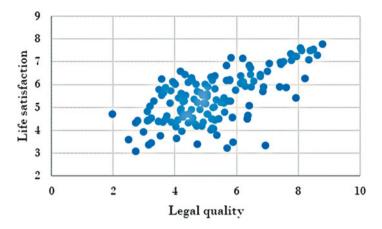


Fig. 3 Legal quality and life satisfaction

Legal Institutions

Next, Fig. 3 illustrates the association between the measure of legal quality from the large dataset on aspects of economic freedom in Gwartney et al. (2019), plotted against the same data on life satisfaction as in Fig. 2. This plot, depicting a correlation of 0.65, also indicates that a clear association may exist.

Table 2 summarizes studies that connect formal legal institutions to life satisfaction and happiness.

The main findings can be summarized as follows:

- Rule of law/quality of the legal system: The general picture is that a strong rule of law is associated with more life satisfaction; it is also the case that it is related to less life-satisfaction inequality.
- Equality: The life satisfaction of working women is higher where there is greater legal equality between men and women; and women of childbearing age are better off from abortion rights and contraception but mutual consent divorce laws decrease women's life satisfaction. The life satisfaction of gay men, but also of people in general, is higher when there is legal equality between straight and gay people.

Economic Institutions

The final Fig. 4a, b illustrate the association between ratings of two types of economic institutions – the rating of the size of government (where a high number indicates a smaller government) (Fig. 4a) and the average rating of monetary policy, openness, and regulatory policy (Fig. 4b) – and life satisfaction; both measures are from Gwartney et al. (2019). While the association between life satisfaction and the

Table 2 Studies on legal institutions and life satisfaction

Authors, year of publication	Title	Dependent variable(s)	Main explanatory variable(s)	Sample, years	Main results
Başlevent and Kirmanoğlu (2017)	Gender inequality in Europe and the life satisfaction of working and non-working women	Life satisfaction	Gender inequality (World Economic Forum's Global Gender Gap Index)	15,000 individuals, 29 countries, 2012– 2013	Working women's life satisfaction relative to housewives is greater in countries where the index indicates a smaller gender gap, i.e., where women are in a better position in terms of equality with men in the public domains
Bennett and Nikolaev (2017b)	Economic freedom and happiness inequality: friends or foes?	Life satisfaction inequality (standard deviation)	Legal quality	92 countries, 1981–2012	The quality of the legal system is negatively associated with life-satisfaction inequality
Berggren et al. (2017)	What aspects of society matter for the quality of life of a minority? Global evidence from the new gay happiness index	Life satisfaction of gay men	Equality of legal rights	130 countries, 2014–2015	Equal legal rights for straight and gay people is positively related to the life satisfaction of gay men
Berggren et al. (2018)	Do equal rights for a minority affect general life satisfaction?	Life satisfaction	Equality of legal rights	93 countries, 1981–2010	Legal recognition of partnership, marriage, and adoption rights, as well as an equal age of consent, relate positively to general life satisfaction

Table 2 (continued)

Authors, year of publication	Title	Dependent variable(s)	Main explanatory variable(s)	Sample, years	Main results
Bjømskov et al. (2008a)	Cross-country determinants of life satisfaction: exploring different determinants across groups in society	Life satisfaction	Legal quality	90,000 individuals, 70 countries, 1997–2000	Legal quality negatively impacts life satisfaction, especially in the case of men and people with middle- or high incomes
Bjørnskov et al. (2010)	Formal institutions and subjective well-being: revisiting the cross-country evidence	Life satisfaction	Legal quality, law and order	149 countries, 1981–2005	Legal quality is robustly and positively related to life satisfaction; law and order is not
Bjørnskov and Tsai (2015)	How do institutions affect happiness and misery? A tale of two tails	Four categories of life satisfaction	Legal quality	89 countries, 1981–2010	Legal quality entails a smaller proportion of people in misery and a larger proportion of people with high life satisfaction
Fereidouni et al. (2013)	Do governance factors matter for happiness in the MENA region?	Happiness	Rule of law	14 MENA countries, 2009–2011	Rule of law significantly increases happiness in the region
Gehring (2013)	Who benefits from economic freedom? Unraveling the effect of economic freedom on subjective well-being	Life satisfaction, happiness	Legal quality	86 countries, 1990–2005	Legal quality is robust and positively significant for all subjective well-being variables

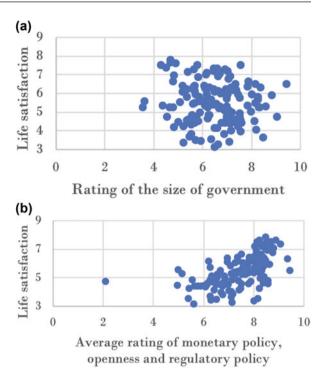
Graaffand and Compen (2015)	Economic freedom and Life satisfaction life satisfaction: mediation by income per capita and generalized trust	Life satisfaction	Leqal quality	120 countries, 2007– 2009	Life satisfaction is positively but indirectly related to legal quality via income per capita and trust, in both rich and poor countries
Luechinger et al. (2008)	Bureaucratic rents and life satisfaction	Difference in life satisfaction between bureaucrats and people in private sector	Judicial independence, legal quality	40,000 Europeans, 40,000 Latin Americans, 42 countries, 1989– 2005	For judicial checks, there are large negative effects on a life-satisfaction proxy for bureaucratic rents
Nikolova (2016)	Minding the happiness gap: political institutions and perceived quality of life in transition	Difference in life satisfaction gap between post-socialist and advanced countries	Rule of law	90,000 individuals, 20 transition countries, 19 advanced countries, 1994– 2013	The rule of law affects the overall life satisfaction differential between the advanced and transition societies. The rule of law played an additional role in reducing the happiness gap in the 1990s and may have even reversed it in recent years
Pezzini (2005)	The effect of women's rights on women's welfare: evidence from a natural experiment	Life satisfaction	Women's rights	450,000 individuals, 12 European countries, 1975– 1998	Abortion rights and contraceptive pills are linked to an increase in life satisfaction of women of childbearing age. Mutual consent divorce laws decrease women's welfare

Table 2 (continued)

Authors, year of publication	Title	Dependent variable(s)	Main explanatory variable(s)	Sample, years	Main results
Rode (2013)	Do good institutions make citizens happy, or do happy citizens build better institutions?	Life satisfaction	Legal quality	87 countries, 1995–2008	Legal quality is an important, positive determinant of life satisfaction in higher-income countries
Spruk and Kešeljević (2016)	Institutional origins of subjective well-being: estimating the effects of economic freedom on national happiness	Happiness	Rule of law	139 countries, 1996-2011	Economic freedom, with legal quality as one of five areas, is positively related to life satisfaction in a cross section; when rule of law is added in addition, it does not attain statistical significance. In a panel-data analysis, more economic freedom over time is significantly related to the decline of subjective wellbeing at the national level

All studies contain results for other explanatory variables, but these are not as a rule reported here, since the focus is on political institutions. The listing is in alphabetical order

Fig. 4 (a) The rating of the size of government and life satisfaction. (b) Average rating of monetary policy, openness and regulatory policy and life satisfaction



average rating of monetary policy, openness and regulatory policy appears strong (r = 0.60), there is more variability in the association between the rating of the size of government and satisfaction (r = -0.10).

In Table 3, studies on how formal economic institutions relate to life satisfaction or happiness are introduced.

The main findings can be summarized as follows:

• Economic freedom: The two most common indicators of economic freedom are two indices, the Economic Freedom of the World index from the Fraser Institute and the Index of Economic Freedom from the Heritage Foundation. The preponderance of empirical evidence suggests that more economic freedom is related to more life satisfaction. The more the formal institutions give room for markets to work, the more satisfied people tend to be with their lives. There are some signs that this pattern is stronger for countries at lower levels of development (where the starting point is usually also lower economic freedom) and for people with initial low levels of life satisfaction. All results concerning the different areas of economic freedom are listed in Table 3 and the individual studies. A final caveat applies: While these indices overall are indicators of the degree to which economic institutions are market-oriented, they do contain a few outcome measures (with regard to monetary stability) that are not, per se, institutional.

 Table 3
 Studies on economic institutions and life satisfaction

Authors, year of publication	Title	Dependent variable(s)	Main explanatory variable(s)	Sample, years	Main results
Bavetta and Navarra (2011)	Economic freedom and the pursuit of happiness	Life satisfaction, happiness, average of the two	Index of Economic Freedom	60 countries, 2004–2008	Economic freedom is positively related to all measures of well-being
Bennett and Nikolaev (2017b)	Economic freedom and happiness inequality: friends or foes?	Life satisfaction inequality (standard deviation)	Economic Freedom of the World index	92 countries, 1981–2012	Economic freedom is significantly correlated with lower inequality of life satisfaction. Decomposing the index, the legal system, and sound money are correlated with lower levels of life-satisfaction inequality
Bjørnskov (2014)	Do economic reforms alleviate subjective well-being losses of economic crises?	Life satisfaction	Economic Freedom of the World Index	29 European countries, 1975–2011	High levels of regulatory freedom and quality seem robustly to insure countries against life- satisfaction losses during economic crises
Bjømskov et al. (2007)	The bigger the better? Evidence of the effect of government size on life satisfaction around the world	Life satisfaction	GDP GDP	74 countries, 1997–2001	Life satisfaction decreases with higher government consumption. For low- and middle-income, and males, this result is stronger when the government is leftwing, while government consumption appears to be less harmful for women when the government is perceived to be effective

Bjørnskov et al. (2008a)	Cross-country determinants of life satisfaction: exploring different determinants across groups in society	Life satisfaction	GDP	90,000 individuals, 70 countries, 1997– 2000	More government consumption robustly decreases life satisfaction in the left-wing and right-wing samples and the lowand middle-income groups
Bjømskov et al. (2008b)	On decentralization and life satisfaction	Life satisfaction	GDP	60,000 individuals, 66 countries, 1997– 2001	Government consumption is negatively related to life satisfaction
Bjømskov et al. (2010)	Formal institutions and subjective well- being: revisiting the cross-country evidence	Life satisfaction	Principal component "economic factor" (incl. honest and efficient government, legal quality, law and order)	149 countries, 1981–2005	Institutional quality is positively associated with life satisfaction. The effects of economic-legal institutions on happiness dominate those of political institutions in low-income countries. Both matter in middleand high-income countries
Boarini et al. (2013)	Can governments boost people's sense of well-being? The impact of selected labor market and health policies on life satisfaction	Life evaluation with Cantril ladder scale	Generosity of unemployment benefits, strictness of employment protection legislation	37,000–54,000 individuals, 34 OECD countries, 2005–2009	Unemployment benefits and the strictness of employment protection legislation are positively related to life satisfaction
Boyd-Swan et al. (2016)	The earned income tax credit, mental health and happiness	Happiness, self- esteem	Earned income tax credit	5,600 U.S. women, 1987–1994	Expansion of the tax credit is related to higher happiness and self-esteem among (especially married) women

Table 3 (continued)

Authors, year of publication Brulé and Freedom and happiness in nation: (2014) why the Finns are happier than the French Carr and Employment Chung (2014) insecurity and life satisfaction: the moderating influenc of labor market policies across Euro Cheng et al. Housing property (2016) rights and subjective wellbeing in urban					
		Dependent variable(s)	Main explanatory variable(s)	Sample, years	Main results
	Freedom and happiness in nations: why the Finns are happier than the French	Life satisfaction, happiness, life evaluation with Cantril ladder scale	Social freedom (part of which is economic freedom)	33 countries, 2000–2009	There is a small, positive relationship between social freedom and the indicators of well-being
Housing I rights and wellbeing	Employment insecurity and life satisfaction: the moderating influence of labor market policies across Europe	Life satisfaction	Employment security, generosity of labor-market policies	22 countries, 2010	Perceived employment insecurity is negatively associated with life satisfaction, but the strength of the relationship is inversely related to the generosity of labor market policies
Cuina	property d subjective g in urban	Life satisfaction	Home ownership, property rights	5,200 Chinese individuals, 2011	Full ownership has a stronger positive association with life satisfaction than partial property rights; partial property rights are more strongly related with life satisfaction than minor property rights
Dluhosch The gender gap in (2020) globalization and well-being	ler gap in tion and g	Life satisfaction	Trade openness	60,000 individuals, 43 countries, 2010– 2012	The well-being of women is relatively stronger negatively affected by a marginal increase in import penetration in countries which rank comparatively low in import penetration. Trade freedom is positively related to life satisfaction in countries with high import penetration and weakly so in countries with low import penetration

Dluhosch and Horgos (2013)	Trading up the happiness ladder	Happiness	Trade, trade openness	28,000 individuals, 32 countries, 1999– 2004	Distinguishing actual trade flows and the option value of trade, the former slightly depress happiness while the latter significantly promotes happiness (mostly in low-income countries)
Evrensel (2015)	Happiness, economic freedom and culture	Life satisfaction	Economic freedom	250,000 individuals, 86 countries, 1990– 2005	Higher economic freedom increases SWB in mainly Christian countries, while this effect is negative for mainly Muslim and Buddhist/Hindu countries
Evrensel (2018)	Contradictory effects of religiosity on subjective well-being	Life satisfaction, happiness	Index of Economic Freedom	96 countries, 1990–2014	Economic freedom is generally positively related to life satisfaction, but not in a robust way to happiness
Flavin et al. (2014)	Assessing the impact of the size and scope of government on human well-being	Life satisfaction	Government consumption/ GDP, employment protection regulation	48,000 individuals, 21 countries, 1981– 2007	At least in advanced democracies, government size and labormarket regulation are positively related to life satisfaction
Flavin et al. (2019)	Labor market regulation and subjective well-being in low-income countries	Life satisfaction, life evaluation with Cantril ladder scale	Labor-market regulation	82,000 individuals, 72 low-income countries, 1991–2014	People (especially those with low incomes) live more satisfying lives in countries that more stringently regulate their labor market
Gehring (2013)	Who benefits from economic freedom? Unraveling the effect of economic freedom on subjective well-being	Life satisfaction, happiness	Economic Freedom of the World index	86 countries., 1990– 2005	There is a positive overall effect of economic freedom, in particular from legal quality, sound money, and less regulation

Table 3 (continued)

Authors, year of publication	Title	Dependent variable(s)	Main explanatory variable(s)	Sample, years	Main results
Graafland (2020)	When does economic freedom promote well-being? On the moderating role of long-term orientation	Life satisfaction	Economic Freedom of the World index, long-term orientation	38 countries, 2011–2017	Economic freedom is positively related to life satisfaction, especially where people value the long term
Graafland and Compen (2015)	Economic freedom and life satisfaction: mediation by income per capita and generalized trust	Life satisfaction	Economic freedom	120 countries, 2007–2009	There are some indications that sound monetary policy, openness to trade and less regulation have a positive effect on life satisfaction, but these effects are not robust.
Graafland and Lous (2018)	Economic freedom, income inequality and life satisfaction in OECD countries	Life satisfaction	Economic freedom, inequality	21 countries, 1990– 2014	Mediation tests show that income inequality mediates the influence of fiscal freedom, free trade, and freedom from government regulation on life satisfaction, which increase inequality
Gropper et al. (2013)	Economic freedom and happiness	Life satisfaction	Economic Freedom of the World index	120 countries, 2005	There is a positive relationship between life satisfaction and economic freedom. The impact of both economic freedom and GDP per capita appears to diminish as the other increases, but the combined effect of simultaneously increasing both, particularly for poorer and less free nations, is positive

Gruber and Mullainathan (2005)	Do cigarette taxes make smokers happier?	Happiness	Cigarette taxes	36,000 Americans, 1973–1998; 101,000 Canadians, 1985– 1998	Excise taxes make predicted smokers happier
Hamermesh et al. (2017)	Does labor legislation benefit workers? Well- being after an hour reduction	Life satisfaction	A reduction in work hours	11,000 Japanese, 1984–1999; 58,000 Koreans, 2003–2009; 1,000 Koreans, 1999– 2009	Life satisfaction increased relatively among those workers most likely to have been affected by the legislation
Hessami (2010)	The size and composition of government spending in Europe and its impact on well-being	Life satisfaction	GDP	153,000 individuals, 12 EU countries, 1990–2000	There is an inversely U-shaped relationship between government size and well-being
Hessami (2011)	Globalization's winners and losers – evidence from life satisfaction data, 1975–2001	Life satisfaction	Globalization (KOF index)	15 EU countries, 1975–2001	Globalization has especially increased the subjective well-being of high-skilled workers, right-wing voters, high-income earners, and of respondents that trust the WTO, the World Bank, and the IMF
Hevenstone (2011)	Flexicurity, happiness, and satisfaction	Life satisfaction, happiness	Flexicurity (generosity of unemployment benefits and active labor-market policies, strictness of employment protection legislation)	10 countries, 2005– 2007	Flexicurity is the optimal approach in the baseline case; but there is some indication that a generous approach, mixing the two policies, might offer marginally better outcomes

Table 3 (continued)

Authors, year of publication	Title	Dependent variable(s)	Main explanatory variable(s)	Sample, years	Main results
Jackson (2017)	Free to be happy: economic freedom and happiness in US states	Happiness	Economic Freedom of North America index	36,500 individuals, 50 US states, 1981– 2010	Economic freedom and its three areas size of government, taxation, and labor-market regulation in US states have a positive effect on both individual happiness and state average happiness, both cross-sectionally and in a panel
Kim and Kim (2012)	Does government make people happy? Exploring new research directions for government's roles in happiness	Life satisfaction	Government consumption/ GDP, regulatory quality	131 countries, 2000– 2008	Size of government is negatively, and regulatory quality positively, related to life satisfaction
Knoll and Pitlik (2016)	Who benefits from big government? A life satisfaction approach	Life satisfaction	GDP GDP	25 European countries	Higher expenditures almost always have a negative effect on well-being, which is stronger for high income groups than for low income groups
Knoll et al. (2013)	A note on the impact of economic regulation on life satisfaction	Life satisfaction	Regulation, attitudes towards markets	76 countries 264,000 individuals, 2009–2011	There are positive effects of low regulation and pro-market attitudes on life satisfaction. People who are opposed to market-oriented policies sometimes benefit most from deregulation

Lin et al. (2017)	Happiness and globalization: a spatial econometric approach	Life evaluation with Cantril ladder scale	Globalization	145 countries, 2012	Globalization is positively related to life satisfaction. Also, an increase in happiness in one nation exerts an upward pressure on the happiness in neighboring countries
Luecke and Knabe (2020)	How much does others' protection matter? Employment protection, future labor market prospects and well-being	Life satisfaction	Employment protection legislation (EPL)	7,000 individuals, 23 European countries, 2011–2012	EPL affects the perceived employability of fixed-term workers positively but permanent workers negatively. Stricter protection for permanent workers is positively related to fixed-term workers' perceived risk of job loss. Effects, directly or via these mediators, on life satisfaction are not statistically significant
Nadeem et al. (2019)	Happiness flight with institutional capabilities: evidence of the effects of economic freedom on subjective well-being in developing countries	Life satisfaction	Economic freedom of the World index and its five areas	30 countries, 1995– 2014	Economic freedom is positively related to life satisfaction. A small government, the rule of law and openness are positive in general, whereas sound money and regulatory freedom are negative in low- and middle-income countries

Table 3 (continued)

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Authors, year of publication	Title	Dependent variable(s)	Main explanatory variable(s)	Sample, years	Main results
Nikolaev (2014)	Economic freedom and quality of life: evidence from the OECD's Your Better Life Index	Your Better Life index (including life satisfaction)	Economic Freedom of the World index	34 OECD countries, 2010	Economic freedom is strongly and positively correlated with most of the 11 areas of wellbeing. The strongest effect is associated with community, safety, and life satisfaction. A high level of economic freedom is associated with higher life satisfaction among all quintiles of income earners
Nikolaev (2015)	Economic freedom and subjective well- being	Life satisfaction	Economic Freedom of the World index	58 countries, 123,000 individuals, 1981–2012	Better legal system and protection of private property, sound monetary policies, and lower levels of business regulations have a positive effect on life satisfaction. Freedom to trade internationally is negatively correlated with life satisfaction
Nikolaev and Bennett (2017)	Economic freedom and emotional well- being	Emotional well- being	Economic Freedom of the World index	15,000 individuals, 12 countries, 1990– 1994	Individuals living in more economically free countries are more likely to report feelings of positive affect and less likely to report feelings of negative affect
O'Connor (2017)	Happiness and welfare-state policy around the world	Life evaluation with Cantril ladder scale	Total public social protection expenditures/GDP	104 countries, 2005– 2012	Social spending is positively associated with life satisfaction in subsamples of developed, transition, and less-developed countries

The interaction term between nation IQ and government size is positive and significant, suggesting that government size increases life satisfaction most in high-IQ countries and least in countries with lower levels of cognitive abilities	More employment protection and a higher benefit replacement rate increase the life satisfaction of the average citizen. Employment protection is valued especially by employed persons of intermediate age but is less beneficial for women/housewives and for older persons	Higher cigarette prices reduce the life satisfaction of likely smokers. Smoking bans are barely related to subjective well-being, but increase the life satisfaction of smokers who would like to quit smoking	Residents of nations with a more progressive taxation policy reported higher levels of subjective well-being on average. The tax rate for average earners and government spending were not associated with well-being
147 countries, 2000–2015	370,000 individuals, 10 European countries, 1975–2002	630,000 individuals, 40 European countries and regions, 1990– 2011	60,000 individuals, 54 countries, 2007
General government consumption/GDP, IQ	Labor-market institutions	Cigarette taxation and smoking bans	Progressive taxation, average tax rate, general government consumption/GDP
Life evaluation with Cantril ladder scale	Life satisfaction	Life satisfaction	Life evaluation with Cantril ladder scale
Government size, intelligence and life satisfaction	Who benefits from labor-market institutions? Evidence from surveys of life satisfaction	Smoking bans, cigarette prices and life satisfaction	Progressive taxation and the subjective well-being of nations
Obydenkova and Salahodjaev (2017)	Ochsen and Welsch (2012)	Odermatt and Stutzer (2015)	Oishi et al. (2012)

Table 3 (continued)

Authors, year of publication	Title	Dependent variable(s)	Main explanatory variable(s)	Sample, years	Main results
Oishi et al. (2018)	Progressive taxation, income inequality and happiness	Happiness	Progressive taxation, income inequality	60,000 Americans, 1972–2014	During years with higher progressive taxation rates, Americans in the lowest 40% of the income distribution tended to be happier, whereas the richest 20% were not significantly less happy. Mediational analyses confirmed that the association of progressive taxation with the happiness of less wealthy Americans can be explained by lower income inequality in years with higher progressive taxation
Ott (2010a)	Good governance and happiness in nations: technical quality precedes democracy and quality beats size	Life evaluation with Cantril ladder scale	Technical quality of governance, size of government (area 1 of the Economic Freedom of the World index)	127 countries, 2006	The relations between quality of government and average happiness do not depend on size of government, while the relations between size of government and happiness fully depend on the quality of government
Ott (2010b)	Greater happiness for a greater number: some noncontroversial options for governments	Life evaluation with Cantril ladder scale	Technical quality of governance, government expenditures/GDP, government consumption/GDP	131 countries, 2006	The relation between the quality of government and happiness is independent of their size, while the relation between size and happiness depends fully on the quality

Life evaluation Technical quality of I30 countries, 2006 The relation between the size of government and average sovernment consumption/ and more GDP	Life satisfaction, Economic Freedom of the happiness World index 2001	deviation of life world index 2001 The lower ranks of population, i.e., individuals less happy and satisfaction and happiness	and Life satisfaction, Welfare-state generosity 43,000 individuals, More inclusive welfare policies 22 countries, 1981– improve levels of subjective well- 2000 an
Government and happiness in with Cantril 130 nations: good ladder scale, its governance fosters inequality higher level and more equality of happiness		Does a rising tide lift Standard all the boats? Explaining the satisfaction and national inequality of happiness happiness	Welfare policy and Life satisfaction, subjective well-being happiness across nations: an individual-level
Ott (2011) Ott (2011) B B B B B B B B B B B B B	Ovaska and Takashima th (2006) p	Ovaska and Dakashima al (2010) E E	Pacek and Radcliff sr (2008) an ir

Table 3 (continued)

Authors, year of publication	Title	Dependent variable(s)	Main explanatory variable(s)	Sample, years	Main results
Pacek et al. (2019)	Well-being and the democratic state: how the public sector promotes human happiness	Life satisfaction, happiness	Being a public employee, employment in public sector/ total employment	32,000 individuals, 23 OECD countries, 1981–2014	At the individual level, those who have public-sector jobs are happier and more satisfied with their lives: overall aggregate levels of subjective well-being vary positively with public employment
Perovic and Golem (2010)	Investigating macroeconomic determinants of happiness in transition countries: how important is government expenditure?	Happiness	GDP	31,000 individuals, 13 transition countries, 1995–2009	Government size positively and significantly influences happiness in transition countries
Pryor (2009)	Happiness and economic systems	Happiness	Economic system (Anglo-Saxon; Nordic; Western European; Southern European)	21 OECD countries, 1990–1999	No significant relationships between happiness and type of economic system are found
Radcliff (2013)	Labor unions and economic regulation	Life satisfaction	Labor-market regulation	58,000 individuals, 36 OECD countries, 1981–2007	Labor-market regulations are positively related to life satisfaction, individually and nationally

Ram (2009)	Government spending and happiness of the population: additional evidence from large cross-country samples	Life satisfaction, happiness	Government spending	138 countries, 1995– 2007	Evidence is lacking for a significant negative association between government expenditure and happiness in broad crosscountry contexts
Rode (2013)	Do good institutions make citizens happy, or do happy citizens build better institutions?	Life satisfaction	Economic Freedom of the World index	87 countries, 1995–2008	Citizens in developing countries value access to sound money, and free trade, while citizens in developed countries value a well-functioning legal system
Rode et al. (2013)	Economic freedom, democracy and life satisfaction	Life satisfaction	Economic Freedom of the World index	87 countries, 1995– 2008	Economic freedom is positively related to life satisfaction
Schalembier (2016)	The impact of exposure to other countries on life satisfaction: an international application of the relative income hypothesis	Life satisfaction	KOF index of globalization (informational flow, international contact)	55,700 individuals, 44 countries, 2003–2008	People in rich, open countries are generally more satisfied with their lives than people in rich, closed countries. Closed low- and middle-income countries generally have a higher life satisfaction than their open counterparts. The effect of exposure is explained by an international comparison effect

(continued)

Table 3 (continued)

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Authors, year		Dependent			
of publication	Title	variable(s)	Main explanatory variable(s)	Sample, years	Main results
Spruk and	Institutional origins of	Happiness	Index of economic freedom	139 countries, 1996-	Higher levels of economic
Kešeljević	subjective well-being:			2011	freedom lead to greater subjective
(2016)	estimating the effects				well-being. Compared to this
	of economic freedom				cross-sectional result, evidence
	on national happiness				from a limited panel of countries
					suggests higher levels of
					economic freedom over time tend
					to reduce the level of happiness
Veenhoven	Freedom and	Happiness	Economic freedom	46 countries, early	Opportunity for free trade is
(2000)	happiness: a			1990s	positively related to happiness in
	comparative study in				poor nations, but not in rich
	46 nations in the early				nations. The relation between
	1990s				economic freedom and happiness
					is strongest in nations where
					capability to choose is lowest
Wolfe and	Satisfaction	Life satisfaction	Self-employment, shared	22,600 individuals,	Self-employed individuals report
Patel (2018)	guaranteed? Life		prosperity, business freedom	17 countries, 2014	higher life satisfaction. This
	satisfaction,		(Heritage Foundation)		relationship is stronger in
	institutional factors				countries with higher shared
	and self-employment				prosperity. Greater business
					freedom enhances the moderating
					influence of shared prosperity on
					the relationship between self-
					employment and life satisfaction

All studies contain results for other explanatory variables, but these are not as a rule reported here, since the focus is on political institutions. The listing is in alphabetical order

- Size of government: Most, but not all, studies indicate a negative relationship between the size of government and life satisfaction or happiness. There are indications that the relationship might have the shape of an inverse U (for EU countries) and that it is conditional on factors such as IQ, whether the country is a transition country or not, the quality of government and, on the individual level, where in the income distribution one is placed. Social spending seems to be a subcategory related to life satisfaction in a positive way, however (which could reflect omitted-variable bias if such estimates capture important but uncontrolled-for aspects of the Nordic countries, such as high social trust).
- Globalization: There are indications that actual trade may affect life satisfaction negatively, while the freedom to trade does so positively. Globalization overall seems positively related to life satisfaction, but within the EU, the effect of globalization varies and is especially positive for those who earn more, are more skilled and are more right-wing. When looking at flows of information and international contacts, openness appears beneficial for rich countries but bad for poor countries. However, the latter result may have to do with the ability to compare one's own country to other countries. A caveat is in order when interpreting these results: The KOF index of globalization measures both institutions enabling integration across borders and actual integration. Hence, the findings for globalization overall may reflect both institutional aspects and flows being enabled by the institutions.
- Labor-market institutions: Within the OECD and Europe, both the generosity of
 unemployment benefits and the strictness of employment protection legislation
 are positively related to life satisfaction; but there are some signs that a more
 liberal regulation in combination with generous benefits ("flexicurity") is superior. More stringent labor-market regulation tends, along similar lines, to be
 related to more satisfying lives in both low-income countries (especially
 pertaining to low-income earners) and advanced democracies.
- Taxation:
 - An expansion of the earned income tax credit in the United States is associated with higher happiness.
 - Excise taxes on cigarettes make predicted smokers in the United States and Canada happier but life satisfaction of likely smokers in Europe lower.
 - More progressive taxation in the United States is related to higher happiness among people in the 40% lowest part of the income distribution (reflecting lower inequality).

Summary

Life satisfaction is undoubtedly a central goal for individuals, but it has also been considered important as an aspect of society by policymakers and others since the work of Adam Smith (1776/1982). A key question is whether anything can be done to stimulate life satisfaction among individuals in a society. One natural candidate for an influence on life satisfaction is formal institutions. Unlike informal institutions,

i.e., culturally evolved practices and norms, formal institutions are more easily changed, if policymakers so wish (Roland 2004; North 2005). By consulting existing research on how formal institutions relate to life satisfaction, potential reformers of institutions may find useful information.

The present review of a large number of studies indicates, first with regard to political institutions, that democracy as such and direct democracy as an instance of allowing citizens the option to participate in collective decision-making seems able to boost life satisfaction, at least under certain conditions. For example, democracy seems more potent in high-income and transition countries. In advanced countries, proportional representation also seems to bring with it a higher satisfaction with life. Bicameralism appears to have a positive effect as well. Second, with regard to legal institutions, it is quite clear that the higher the quality of the legal system, i.e., the better functioning the rule of law is, the more life satisfaction there is. Likewise, more equal treatment of citizens, irrespective of gender or sexual orientation, has the same effect. Third, with regard to economic institutions, the general pattern is that more economic freedom – i.e., a larger role for markets – brings with it more life satisfaction. So does globalization overall (even though actual trade can have a negative effect). However, when looking at more specific institutions, it seems like a more stringent employment protection and a larger welfare state can stimulate wellbeing.

While these results may be interpreted to contain recipes for institutional reform, there are good reasons to be cautious – as clarified at length by Frey and Stutzer (2000c, 2010, 2012). One reason is the knowledge problem. While empirical research of the kind surveyed here, with over 100 published studies, give certain indications of how institutions and life satisfaction relate to each other, it bears noting that few results are fully robust across studies, indicating the need to consider local conditions in each case (a point made forcefully and more generally by Rodrik 2015). But even so, this literature consists of cross-country studies and are not experimental or randomized, which makes it uncertain whether they capture causal relations or mere conditional correlations. Knowing that is arguably of central importance for policymaking. To take one example from one of the few studies that attempt to tackle the issue of causality: Rode (2013) finds that economic freedom brings about life satisfaction - but also that there are indications that life satisfaction brings about (a political climate willing to implement) economic freedom. In addition, omitted variable bias arguably remains a problem in the literature, and particularly two specific groups of countries – Latin American and the Nordic countries – often drive what appear to be clear results (Bjørnskov 2003). A number of findings in the satisfaction literature are therefore likely to be spurious, owing to the special history of Latin America or the extreme trust culture of the Nordics. Moreover, even if social science had produced causally credible and robust results, it does not necessarily mean that policymakers or others in the public debate would grasp the results in a fully correct way.

Yet another factor is the subjective measures of well-being that are employed in the literature. It still remains a somewhat open question how reliable they are and what they precisely measure. In addition, one may ask how comparable they are over time and space (see, e.g., chapters ▶ "Measuring Subjective WellBeing" by Frijters, this volume and ▶ "The Economics of Happiness" by Graham and Nikolova, this volume). Without denying that this type of questions has some merit, by writing a chapter of studies using survey-based replies to questions of life satisfaction and happiness reveal that the authors, just like the authors of the studies reviewed, consider the measures *sufficiently* meaningful to form the basis of serious research. All of these points may constitute reason for skepticism with regard to advocating "life-satisfaction maximization" as a policy goal.

Another reason is *the incentive problem*. For example, policymakers will likely be tempted to manipulate the indicator of well-being; likewise, respondents may, if they know their answers will form part of the basis for policymaking, exaggerate or in other ways give incorrect replies to survey questions. As emphasized by Frey and Stutzer (2000c), such strategic incentives may invalidate satisfaction surveys and thereby undermine the knowledge basis for political reforms.

A necessary condition for institutional reforms to be undertaken with a high probability of generating higher subjective well-being seems to be knowledge about the effects of (changes in) formal institutions. In that regard, the research covered here is a useful first step — but perhaps not at this point, and perhaps not in the near future, a sufficient condition for research to be used for the purpose of using public policy to maximize well-being.

While the literature has come a long way, important gaps and challenges nevertheless remain. We particularly point out a number of methodological challenges above, and trying to solve them should, in our view, stand at the center of future research efforts. When carrying out cross-country analysis, using panel data and instrumental variables is one way forward, even though they certainly do not constitute panacea. It is hard to find valid instruments, not least instruments that satisfy the exclusion restriction, but this is a challenge that we hope future research will take on (cf. Rode 2013). Also, it may be fruitful to make sure to separate the direct and indirect effects of institutions more clearly – for an example in which trade flows are differentiated from trade institutions, see Dluhosch and Horgos (2013). Moreover, increased use of unit-root testing is called for: If the institutional measures are subject to nonstationary behavior over time, the relationship with life satisfaction can be tainted by mean reversion over time unless we know whether the variables are cointegrated. We also welcome studies using the epidemiological method (Fernández 2011), whereby institutional features of the ancestral country of immigrants are used to predict their individual levels of life satisfaction. An attractive feature of this method is the ruling out of reverse causality.

Yet, the most promise ahead is perhaps found by taking a more experimental route, including lab, field, and natural experiments. Even though they entail a risk of low external validity, they enable credible causal inference. When it comes to lab and field experiments, there are examples of how institutions can be "created" and changed in a controlled manner, which could be used to investigate effects on variables like life satisfaction – see, e.g., Cassar et al. (2014) for an example of a field experiment where the quality of the legal institutions (the risk of being cheated) is varied to investigate how trust changes. As for natural experiments, they offer

another way to avoid endogeneity problems – for example, it should be possibly to apply regression discontinuity design methods to identify exogenous events and to investigate how they affect life satisfaction. Whenever there are distinct institutional reforms or shocks, especially if induced by natural forces or the like, these can be used for causal inference. There is clearly more and exciting work to be done on institutions and life satisfaction.

Cross-References

- ► Measuring Subjective WellBeing
- ► The Economics of Happiness

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