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Agency, Human Dignity, and Subjective Well-being

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SUMMARY

In the last decades, our understanding of human well-being and development has shifted from a traditional focus on income and consumption toward a richer multidimensional approach. This shift has been strongly influenced by a body of research in subjective well-being (SWB) and the capabilities' approach, which emphasizes the role of freedom, opportunities, and social inclusion on well-being. Using a novel nationally representative survey of Chilean households, this paper explores the relationship between life satisfaction and two "hidden dimensions" of development, agency, and human dignity. Human agency refers to the capability of an individual to control her destiny and make choices to fulfill goals set autonomously. Human dignity is associated with the absence of feelings of shame and humiliation, and is ultimately related to social inclusion. We use a method that allows to isolate the impact of personality traits affecting both SWB and capabilities' perceptions. Our results show that agency and shame are important predictors of life satisfaction, comparable in magnitude to the effect of income variables. The fact that capabilities that measure freedoms and social inclusion are aligned with well-being measures lends support to the view of human development as integral process. Policies to advance agency, and reduce shame and discrimination are discussed. In the case of shame and discrimination we emphasize the role of interventions that influence stigmatization and group boundaries.

1. Introduction

In the last two decades, the understanding of human well-being and development has evolved substantially. The traditional focus on income, consumption, and material measures of well-being has shifted toward a much richer notion, characterized by a multidimensional approach. There are many reasons for this shift, from the realization that traditional theories and welfare measures fall short to describe and interpret societies, to access to more and better data. Two strands of theoretical and empirical advancements have been especially influential: the study of subjective well-being (SWB) and Amartya Sen's capabilities' approach to human development (Sen, 1992, 1995, 1999).

In contrast to traditional welfare measurement in economics, based on observed choices and indirect utility estimates that relate to individual resources, SWB measures are a direct indicator of psychological well-being. The study of SWB measures has shown that these measures are correlated but not fully determined by access to material resources or the satisfaction of basic *functionings* such as income, feeding, or sleep. For example, life satisfaction correlates systematically with affects and emotions experienced by an individual (Diener, Inglehart, & Tay, 2012). Importantly, conditional on income, SWB seems to be systematically affected by policies and institutions.[1] In sum, while SWB measures require a careful interpretation, they provide information about a subjective dimension of well-being that is not entirely captured by income and other material measures, providing additional information to evaluate policies and institutional changes (Frey & Stutzer, 2002; Di Tella & MacCulloch, 2006).

On the other hand, a central axiom of the capabilities' approach is that individual well-being increases with the expansion of freedoms and opportunities that individuals have a reason to value (Sen, 1999).[2] Some capabilities such as income, education, and health are easier to measure and have been incorporated in the

[1] Di Tella, MacCulloch, and Oswald (2003) provide an interesting illustration of this issue by looking at the impact of an economic down term on SWB. Using a panel of individuals in European countries, they show that—controlling for income and employment status—the drop in SWB is significantly lower in countries with a stronger social insurance institutions. Another example is Inglehart and Klingemann (2000), who find an association between SWB and measures of political freedom at the country level.

[2] The capability approach has influenced different fields of economics. A list of important contributions include Alkire (2002), Atkinson, Cantillon, Marlier, and Nolan (2002), Alkire, (2007)Heckman (2007), Basu and Kanbur (2008), Stiglitz, Sen, and Fitoussi (2009), among others.

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UN's Human Development Index (HDI), now widely used to assess development levels. Others such as *agency* and *human dignity* require richer datasets but can be equally or more fundamental.

In Sen's tradition, human agency or agency freedom refers to the capability of an individual to control her destiny and make choices to fulfill goals set autonomously (Alkire, 2002). On the other hand, human dignity is associated with the absence of discrimination, feelings of shame, and humiliation.[3] Human dignity is ultimately related to social inclusion and freedom from social relations that deny equal treatment (Sen, 1999; Gauri, 2004). Alkire (2002, 2007) argues that agency and human dignity are two key dimensions of human development, largely missing in the assessment of development.[4] Since human agency and human dignity are often times at the basis of general justifications of rights (Gauri, 2004), it seems relevant to explore their connection with well-being.

This paper explores the importance of human agency and human dignity in explaining subjective well-being. Our work uses a novel dataset representative of Chilean households, the "Other Dimensions of Household Quality of Life" (ODHQL) survey, especially designed by the Oxford Poverty and Human Development Initiative (OPHI) to gather internationally comparable indicators on employment quality, empowerment, physical safety, human dignity, and psychological and subjective well-being (Alkire, 2007).

Our hypothesis is that agency is positively correlated to SWB as it reflects the capacity of an individual to do what she values. The measure we use for agency is related with an individual's perception of freedom to decide for herself how to lead his life. A natural interpretation of the hypothesis is that the more freedom an individual has to decide how to lead her life, the more well-being she experiences. On the other hand, we focus on two aspects of human dignity: shame proneness and discrimination. Our hypothesis is that individuals that experience shame or feel discriminated more regularly should report lower levels of well-being.

Our first set of results provides correlational evidence on the importance of agency, shame, and discrimination in explaining SWB. The results are consistent with our hypothesis. However, since SWB and the perceptions of agency and dignity are subjective measures, an important concern is that the results would be potentially biased if we do not account for personality traits. Specifically, it has been shown that genetic factors are strongly correlated with happiness (Inglehart & Klingemann, 2000; Lykken & Tellegen, 1996). Moreover, personality traits such as repressive-defensiveness, trust, emotional stability, desire for control, hardiness, positive affectivity, private collective self-esteem, and tension have been linked to SWB (DeNeve & Cooper, 1998; Diener, Oishi, & Lucas, 2003). Indeed, Verme (2009) shows that SWB is strongly predicted by a measure of freedom of choice and locus of control, suggesting that individuals who believe more strongly that the outcome of their actions depends on internal factors (rather than external ones) appreciate more having freedom of choice than people who believe that the results of their actions are determined by external factors.

Using a method introduced by Van Praag and Ferrer-i Carbonell (2008), our data allow us to construct a measure of personality traits that we include as a control. After controlling for personality traits the OLS parameters associated with agency and shame decrease their magnitude in nearly 50% in the life satisfaction estimates. The parameter associated with discrimination decreases in magnitude and becomes statistically insignificant.

Overall, our results show that agency and human dignity are strong predictors of life satisfaction. The difference in life satisfaction levels between individuals who feel they have freedom to decide for themselves how to lead their life in comparison with the individuals that do not is roughly the same as the difference between people from the highest and the lowest income quintiles. Also, moving from highest to the lowest quintile of the shame proneness index increases life satisfaction the same as moving from the second to the highest income quintile. Finally, after including our proxy of personality traits, perceived discrimination is not associated with life satisfaction in our sample.

This study contributes to the growing literature emphasizing the importance of measuring capabilities that are central to human development and well-being but have been relatively understudied in empirical work. Previous work exploring the relationship between subjective well-being and different measures of freedom perceptions, autonomy, and attitudes toward emancipative values include Veenhoven (2000), Inglehart, Foa, Peterson, and Welzel (2008), Verme (2009), Fischer and Boer (2011), Victor *et al.* (2013). With the exception of Victor *et al.* (2013), all of these papers provide cross-country evidence of showing a positive association between SWB and freedom perceptions and attitudes. While none of these papers account for the importance of personality traits, our results on the impact of agency on SWB are consistent with previous findings. An important finding in Inglehart et al. (2008) is that countries that have expanded democratic freedoms and social inclusion have rising levels of SWB, which suggests that SWB in a country is affected by institutional changes that impact agency and human dignity. The negative relationship between perceived discrimination and health has received significant attention in the health literature (see, for example, Pascoe & Smart, 2009) but much less so in the SWB literature.[5] To our knowledge the association between measures of SWB and shame proneness has not been widely studied.

More closely related to our paper are Graham and Nikolova (2015), Anand *et al.* (2009), and Anand, Krishnakumar, and Tran (2011). Graham and Nikolova (2015) use Gallup World Poll data from a large number of countries and explore the relationship between opportunities and SWB. An interesting contribution of their work is the attempt to decompose the contribution of actual capabilities and means (e.g. education, income) and perceived opportunities (e.g. autonomy). They find that both objective and subjective capabilities explain SWB measures and seem more important for life evaluations than hedonic well-being. The authors acknowledge that these relationships could be partially driven by "unobserved heterogeneity across personalities". Our analysis is complementary to theirs. We also investigate the impact of subjective perceptions of opportunities (controlling for a large number of actual or material capabilities) and place special attention in controlling for personality traits, confirmed to matter by our findings.

Anand *et al.* (2009, 2011) also aim to assess the empirical relationship between SWB and capabilities using surveys that were specifically designed to capture capabilities in different life domains. The main contribution of Anand *et al.* (2009) is to introduce suitably designed statistical indicators to measure human capabilities. Anand *et al.* (2011) propose a method to take into account the effect of personality traits, which requires specific data on personality traits (e.g. Big Five personality measures), and aggregates capabilities into a summary score or capabilities index. The method is applied to a survey of individuals from five Argentinian cities. The personality traits' battery of questions is not available in our survey nor many others. Instead, we use the

[3] As Adam Smith described it, to have the *the ability to appear in public without shame*.

[4] In addition to agency and human dignity, Alkire identifies employment quality, empowerment, and physical safety as the other dimensions that deserve more attention.

[5] An exception is Werkuyten and Nekuee (1999) who study the relationship between discrimination and SWB for a population of Iranian immigrants in the Netherlands.

information of different domains of well-being to extract a common component. Thus, our paper requires different data to control for personality traits. In addition, we are interested in specific capabilities rather than an aggregate index. Still, our findings are in line with theirs in showing the empirical relevance of accounting for personality traits.

In addition to the differences just highlighted, we are not aware of previous research studying the relationship between life satisfaction and human dignity measures such as shame proneness. In the final section we discuss policies to advance agency, and reduce shame and discrimination. In the case of shame and discrimination we emphasize the role of cultural processes linked to stereotypes and stigmatization (Lamont, Beljean, & Clair, 2014). We analyze interventions that influence stigmatization and group boundaries and illustrate the relevance of taking shame into account in the design of policies and programs.

The rest of the paper is organized as follows: Section 2 describes the data and introduces our measures of agency and human dignity. Section 3 presents the empirical strategy. Section 4 presents the estimation results. Section 5 discusses public policy implications.

2. Data

The main source for our data is the survey "Other Dimensions of Household Quality of Life" (ODHQL), conducted in Chile in 2009, a result of the collaboration between the Oxford Poverty and Human Development Initiative (OPHI), the Ministry of Social Development and Microdatos Center at the University of Chile. It was administered to 2,052 households of married or cohabiting individuals corresponding to a sub-sample of the 2006 wave of the National Socioeconomic Characterization Survey (CASEN). CASEN is the country's main national representative household survey used to characterize the socioeconomic situation of the population and the impact of social policies. The ODHQL is representative of Chilean households of married or cohabiting individuals.[6]

In addition to detailed data on income, health, education, housing quality, and employment, the survey contains information on employment quality, empowerment, physical safety, human dignity, and psychological and SWB, sometimes referred as the *missing dimensions of poverty* (Alkire, 2007; Diprose, 2007; Ibrahim & Alkire, 2007; Lugo, 2007; Samman, 2007; Zavaleta, 2007). The dataset is novel and it allows us to study the importance of agency and human dignity in explaining subjective well-being.

(a). Subjective well-being measure

We use life satisfaction as a measures of SWB. The life satisfaction measure is based on the following cannonical question:

In general, how satisfied or unsatisfied are you with your life overall?

There are four possible answers: (i) Very satisfied; (ii) Fairly satisfied; (iii) Not very satisfied; and (iv) Not satisfied at all. We code these answers from 1 to 4, with 1 being "not satisfied at all" and 4 being "very satisfied".

(b). Measure of agency

The survey contains a module of questions that aim to measure agency (Ibrahim & Alkire, 2007; Samman & Santos, 2009). Specifically, the first question of the module on self-determination and autonomy is as follows: *How true is the following statement for you?: I feel free to decide for myself how to lead my life.*

There are four possible answers: (i) Not at all true; (ii) Somewhat true; (iii) Fairly true; and (iv) Completely true. We use four dummy variables that identify the answer given by each individual.[7]

(c). Measures of human dignity

The dataset contains several internationally comparable measures related with human dignity and social isolation (Samuel, Alkire, Hammock, Mills, & Zavaleta, 2014; Zavaleta, 2007). We focus on two aspects of dignity: *shame* and *humiliation*. While these aspects are correlated, they have several differences. According to Zavaleta (2007), shame is a personal evaluation of failing according to one's own standards. In contrast, individuals feel humiliated when another agent expresses his evaluation of them. Moreover, individuals that feel ashamed tend to believe they deserve it, because they do not meet their own standard. Instead, humiliated individuals feel that the treatment they received was unfair. Furthermore, reactions to shame and humiliation may be quite different. For example, ashamed individuals may react trying to hide, while humiliated individuals may feel anger and develop a desire for revenge.

Psychologist have shown that shame is a powerful emotion that can guide individuals behavior and influence individuals self-conception (Tangney & Dearing, 2002). The evidence suggests that it is correlated with personal distress, neuroticism, and low self-esteem (Johnson *et al.*, 1987; Leith & Baumeister, 1998; Tangney, Burggraf, & Wagner, 1995). It is important to note that individuals might feel ashamed in response to a specific circumstance or, instead, they may feel ashamed regularly. In the first case, feeling ashamed is unlikely to be related with a measurement of SWB. In contrast, individuals who feel ashamed constantly may continually feel they are failing. We expect individuals who do not meet their own expectations or standards to express lower life satisfaction.

In oder to measure shame we take advantage of the Personal Feelings Questionnaire-2 (PFQ-2), that includes the shame proneness questionnaire developed by Harder and Zalma (1990). This questionnaire elicits an individual's tendency to experience the emotion of shame in response to specific negative events (Tangney & Dearing, 2002). This is a good proxy of this capability because it provides us with a dispositional assessment of the level of shame individuals feel in their daily life, in contrast to the shame an individual may feel after an isolated experience (Zavaleta, 2007). Specifically, we construct an index of shame proneness using the answer to the following question:

For each of the following listed feelings please place a number from 1 to 4, reflecting how common the feeling is for you: embarrassment; feeling ridiculous; self-consciousness; feeling humiliated; feeling stupid; feeling childish; feeling helpless, paralyzed; feelings of blushing; feeling laughable; feeling disgusting to others.

We scale the answer of each question from 0 to 3, with 0 being "rarely or never" and 3 being "always or almost always". We then add the points across questions, resulting in the *shame proneness index*. This index can take values between 0 and 30. In the sample, the index has a mean of 3.54 and a standard deviation of 3.75. The 25th percentile of the index is equal to 0 while the 75th percentile is equal to 5.[8]

[6] While the household has to be composed by married or cohabiting individuals, the interviewee may be another member of the household.

[7] As a robustness check, we also used an additional question of the module: *How true are the following statements for you?: I generally feel free to express my ideas and opinions.* The results are consistent with the ones presented herein and are available upon request.

[8] To evaluate the reliability of this measure in our sample, namely, how much information about the construct is contained in the index, we compute the Cronbach's alpha value. It's value is 0.83, which is greater than 0.7, the threshold value commonly accepted to consider a measure reliable (Nunnally, 1978).

On the other hand, we measure humiliation using a question regarding perceived discrimination. Individuals are asked:

Have you been treated in a way that you felt was prejudiced during the last three months?.

We construct a dummy variable that equals one if the individual declares that he/she has been treated in a prejudiced way and zero, otherwise. As discussed earlier, humiliation is related with anger and a desire for revenge that might directly decrease individual's life satisfaction.

(d). Descriptive statistics

Table 1 presents descriptive statistics of life satisfaction for subsamples corresponding to different individual characteristics.[9] A lower household income or education level is associated with lower average life satisfaction. Also, employed and unemployed individuals have greater average of life satisfaction than inactive ones. Additionally, having savings to go by for three months is associated with higher levels of life satisfaction.

Table 2 shows the average life satisfaction levels for groups with different levels of agency, shame proneness, and perceived discrimination, our main explanatory variables. First, there is a positive bivariate relation between agency and life satisfaction: a perception of more freedom to decide is associated with higher life satisfaction levels. The difference between the group that answers "not at all" and "completely true" amounts to 1.4 standard deviations of the life satisfaction measure. Second, there is a negative relationship between life satisfaction and the shame proneness index. The difference between the mean of life satisfaction of the lowest and the highest quintile of the shame index is 0.9 standard deviations. Finally, individuals who perceive they have been treated in a discriminatory manner report lower life satisfaction than those who do not.

3. Empirical strategy

Our main focus is to identify the association between subjective well-being and agency, shame, and discrimination. In order to do so we estimate variations of the following linear model:

$$SWB_i = X_i'\beta + M_i'\delta + u_i \quad (1)$$

where SWB_i is the measure of life satisfaction for individual i, X_i is a vector of controls, M_i is a vector with the variables related to agency, shame, and discrimination we focus on, and u_i is the error term.

A central concern, is the omission of personality traits, a variable that the literature has shown to hold considerable explanatory power on SWB (Anand *et al.*, 2009, 2011; DeNeve & Cooper, 1998; Diener *et al.*, 2003). The basic idea is that people with certain personality traits—for example, optimism—may give responses that express both high SWB and agency. This poses two potential problems. The first one is a classic omitted variables bias. In fact, as shown shortly, ignoring this issue leads to estimating a significantly stronger association between subjective well-being and the capabilities we are interested in.

A second issue is more conceptual. Since both the left and the right-hand-side variables of interest are subjective, this correction is central to interpret the results. To fix ideas, consider an agency measure (the case of measures of human dignity is analogous). In principle, our measures of individual agency are perceptions—obviously subjective—of freedom and autonomy that may be influenced by objective freedoms in different life domains, objective capabilities, and means such as those captured by our X variables (e.g. education, income) and personality traits. This is illustrated by the diagram in Figure 1. Objective freedoms and material capabilities can also vary across individuals. However, in contrast to personality traits, they are likely to be systematically affected by political, social, and economic institutions (e.g. labor market conditions, social security, gender inequality, political participation, etc). A strong association between subjective well-being and agency would still be interesting regardless of whether or not it is driven primarily by personality traits. However, if the relationship survives after controlling for personality traits and the objective capabilities included in X, it might suggest that there are objective conditions that affect individual perceptions of freedom and autonomy that are consistently reflected in SWB measures.

Personality traits may cause two individuals facing the same situation or stimulus to react differently. For example, optimism plays an important role in coping with stressful situations (Scheier & Carver, 1992). More specifically, there is evidence that optimism helps to better cope with discrimination (Williams, Neighbors, & Jackson, 2003). Since subjective perceptions of agency, shame, and discrimination are likely to be mediated by personality traits, controlling for a proxy of personality traits is important to attempt to isolate the variation of "objective" or external determinants faced by individuals.

If for each individual i we have a measure of personality traits Z_i, we can estimate a version of the model that corrects the potential bias related with the omission of personality traits:

$$SWB_i = X_i'\beta + M_i'\delta + \gamma Z_i + u_i. \quad (2)$$

Using the method developed by Van Praag and Ferrer-i Carbonell (2008), our dataset allows us to construct a measure of personality traits Z_i. This method is now relatively standard in the happiness literature. How is the measure of Z_i constructed? Our dataset contains questions that asses individual satisfaction in a number of domains. Specifically, in addition to the "general" life satisfaction question used as our basic SWB measure, the survey addresses five satisfaction domains: feeding, income, health, family, and housing. Following Van Praag and Ferrer-i Carbonell (2008), we assume that there is an unobserved component (Z_i) reflecting common personality traits that codetermine "general" life satisfaction and each domain satisfaction. Let k stand for a specific satisfaction dimension and $S_{k,i}$ be a variable measuring satisfaction in dimension k for agent i. Each domain is a function of observed characteristics X_i and an unobserved component. In concrete, we estimate the relationship between each domain and the variables:

$$S_{k,i} = S_k(X_i) + u_{k,i},$$

where $S_k(\cdot)$ is a function that we assume to be linear and $u_{k,i}$ is an error term specific to each dimension k. Next, we compute the predicted residuals $\hat{u}_{k,i}$ from each regression. These residuals contain common factors that are unobserved and determine their subjective well-being such as personality traits (e.g., optimism or pessimism). In the Appendix A, we present the detailed estimation and show the correlations between the predicted error terms and find that these correlations are quite high. In order to isolate the impact of personality traits, a principal components analysis is performed. The first component is used as a measure of these personality traits. Thus, Z_i is the linear combination of the residuals -with one coefficient for each dimension- that maximizes the variance across agents. More detailed information on the procedure and its application to our estimation is in the Appendix A.

[9] We loose a 6% of the sample because individuals do not report most of the control variables. Regarding the variables of interest, agency is available for all the subsample we use (1933). Shame and discrimination are available for 90% and 99% of the subsample respectively. We take into account this issue in the estimates as explained in endnote 10.

Table 1
Life satisfaction by individual characteristics

Total		%	Mean	S.D.
		100	3.02	0.80
Male		48.3	3.10	0.78
Female		51.7	2.94	0.80
18–24 years old		2.9	3.04	0.71
25–34 years old		13.7	3.11	0.79
35–44 years old		26.4	3.01	0.79
45–54 years old		28.6	2.99	0.80
55–64 years old		17.3	3.02	0.78
65 + years old		11.1	2.96	0.85
Income quintile I		22.2	2.73	0.86
Income quintile II		21.8	2.93	0.76
Income quintile III		21.7	3.00	0.79
Income quintile IV		18.9	3.23	0.72
Income quintile V		15.3	3.31	0.69
Primary education		42.1	2.91	0.85
Secondary education		42.9	3.03	0.76
Tertiary education		15.0	3.28	0.66
Employed		67.6	3.09	0.77
Unemployed		3.3	2.72	0.81
Inactive		29.1	2.87	0.83
Married		84.0	3.04	0.78
Separate		6.4	2.81	0.84
Widower		3.3	2.72	0.92
Single		6.3	3.01	0.86
Head of household	No	34.3	2.99	0.79
	Yes	65.7	3.03	0.80
Has children	No	22.7	3.06	0.78
	Yes	77.3	3.00	0.80
Has physical and/or mobility impairment	No	93.8	3.03	0.79
	Yes	6.2	2.78	0.86
Has a psychiatric problem	No	98.9	3.02	0.79
	Yes	1.1	2.57	0.81
Has a chronic disease	No	78.9	3.05	0.78
	Yes	21.1	2.87	0.83
Has cancer	No	98.6	3.02	0.79
	Yes	1.4	2.64	0.91
Indigenous	No	91.6	3.01	0.79
	Yes	8.4	3.08	0.85
Religious	No	34.1	2.94	0.79
	Yes	65.9	3.06	0.79
Have savings to go by 3 months	No	74.4	2.91	0.81
	Yes	25.6	3.28	0.68

Note: Author's calculations based on ODHQL 2009.

In what follows, the models (1) and (2) are estimated using OLS as a benchmark. For robustness, we also estimate an ordered probit that accounts for the ordinal nature of the dependent variable.

4. Results

(a). Main results

We present our estimates of the association between life satisfaction and the measures of agency, shame, and discrimination introduced earlier. We compare the "first pass" regression that ignores the personality traits' control (Eq. (1)) with the one that includes it (Eq. (2)). Columns (1) and (2) in Table 3 show the OLS estimates of models (1) and (2), respectively. Columns (3) and (4) show the ordered probit estimates.[10]

The OLS results in column (1) show a strong correlation between agency and life satisfaction. On the other hand, the shame proneness index is strongly and negatively correlated with life satisfaction. Likewise, individuals that felt discriminated are associated with lower levels of life satisfaction.

Regarding some of the control variables, it can be seen that there is an important socioeconomic gradient in life satisfaction. Individuals in income quintiles I, II, and III are, on average, significantly less satisfied than individuals in quintile V. In addition, married individuals are on average more satisfied than separated individuals. Individuals who suffer from a chronic illness or have cancer are associated with lower levels of the life satisfaction measure. Finally, individuals who report to be religious and/or having savings to go by three months are associated with higher average life satisfaction.

Column (2) of Table 3 presents the estimates of model 2, that is, including the proxy of personality traits. First of all, the unobserved component is highly significant to explain life satisfaction. In particular, the Adjusted *R-squared* increases from 0.23in column (1) to 0.48 in column (2).

The strong and positive correlation between agency and life satisfaction survives, but the significance and the magnitude of the parameter decreases. In fact, comparing columns (1) and (2), the magnitude of the parameter associated to the dummy variable for the individuals who answer the agency question "completely true" decreases 43%. Hence, not including a correction for personality traits introduces a sizable bias in the estimates of the relationship between agency and life satisfaction. On the other hand, the parameter associated with the individuals that are in the fifth quintile of the shame proneness index relative to the first one decreases 46%.[11] Moreover, the measure of perceived discrimination is not significant after controlling for personality traits. We interpret these results in the discussion section.[12]

The statistical and economic significance of control variables also change. For example, in contrast to column (1), the relationship between life satisfaction and age in column (2) is U shaped. In addition, being employed is significant and positively related with life satisfaction (relative to being unemployed). Instead, being inactive is not significant.

The ordered probit estimates in columns (3) and (4) yield qualitatively similar results. Namely, agency and the shame proneness index are strongly related with life satisfaction. Instead, perceived discrimination does not seem to be related with life satisfaction in our sample.[13]

To determine the magnitude of the effects of agency and shame we compute the average marginal effect of the probability that the

[10] All estimates include dummy variables for missing values not shown in the tables (see Maddala, 1977, p. 202). Most of them are not statistically significant.

[11] It is interesting to note that que IV shame quintile is no longer correlated with life satisfaction, generating that the relationship between shame and life satisfaction is no longer monotonic. In order to analyze this issue we estimated the model using the shame index itself rather than quintiles as the independent variable. In this case the results show that the more shame you experience the less SWB you declare. Next, we changed the variable by grouping together some quintiles of the shame proneness index measure. Specifically, we grouped together quintiles I and II (low shame), and III and IV (intermediate shame) respectively, and redid the estimates of Table 3 including a dummy identifying the intermediate group, and a dummy identifying the quintile 5 (high shame), leaving as a base category the low shame group. With this grouping, results show a monotonic pattern. All these results are available upon request.

[12] Additionally, we investigated the role of self-determination, measured as the motivation of workers for their job, and discrimination at work on job satisfaction. The results suggest that individuals that are in their job because they consider it personally important are more satisfied with their job than individuals that are motivated only because he needs the money. Moreover, discrimination at work does not have a significative effect on job satisfaction. These results are available upon request.

[13] We also explored heterogeneity according to the level of Z. In particular, we split the sample between high *Z* (above the median) and low *Z* (below the median) and run separate regressions for each group. We found no statistically significant differences in the shame and discrimination variables between groups. (see Table 11 in Appendix B) With regard to the agency variable, there are some differences between the high *Z* and the low *Z* subsamples. If we allow for the interpretation that high *Z* corresponds to more optimistic individuals, we can say that optimism seems to crowd out the importance of agency perceptions. Or, agency perceptions matter more to "more pessimistic" subjects.

Table 2
Life satisfaction for each level of agency, shame, and discrimination

		%	Mean	S.D.
Agency				
I Feel free to decide for myself how to lead my life:				
Not at all true		4.3	2.23	0.98
Somewhat true		15.2	2.64	0.76
Fairly true		41.1	2.95	0.70
Completely true		39.4	3.32	0.74
Shame				
Shame proneness index index quintile I		25.7	3.27	0.70
Shame proneness index quintile II		22.2	3.18	0.76
Shame proneness index quintile III		20.6	3.04	0.72
Shame proneness index quintile IV		14.2	2.94	0.79
Shame proneness index quintile V		17.4	2.55	0.83
Discrimination				
Have been treated in a way he or she felt prejudiced	No	81.6	3.08	0.76
	Yes	18.4	2.73	0.90

Note: Author's calculations based on ODHQL 2009.

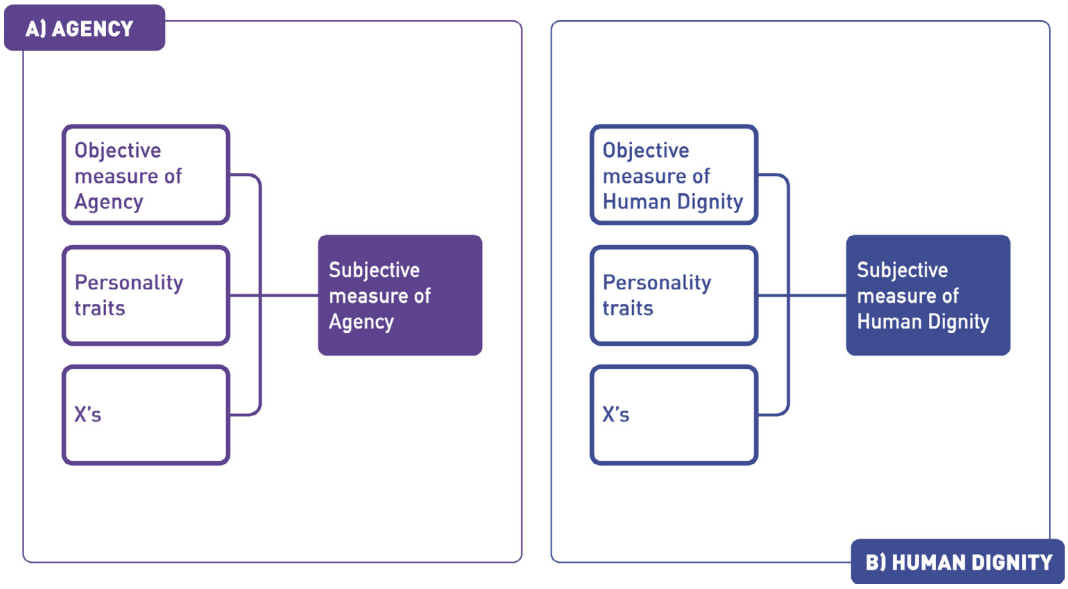

Figure 1. Determinants of subjective measures of agency and human dignity.

individual declares being very satisfied. We can calibrate the importance of these effects by comparing it to the marginal effects associated to income quintile dummies and the religiosity dummy.

The average marginal effects are reported in Table 4. The probability of being very satisfied for individuals who answer the agency question "completely true" is 20.8 percentage points higher than for individuals who answer "not at all true". On the other hand, the probability of being very satisfied for individuals in the fifth income quintile is 14.6 percentage points higher than for those in the first income quintile. Thus, the effect of moving from the highest to the lowest agency level is equivalent to 1.4 times the effect of moving from the highest to the lowest income quintile. This suggests that the effect of agency on life satisfaction is quantitatively important.

Moving to the impact of shame proneness, the probability of being very satisfied for individuals in the highest quintile of the shame proneness index is 9.8 percentage points lower than for those in the lowest quintile. Ceteris paribus, this is equivalent to 66% of the effect of moving from the lowest income quintile to the highest one.

(b). Analysis of the results

We have seen that the agency and shame variables have a significant effect on life satisfaction after controlling for personality traits, while perceived discrimination does not.[14] To gain further understanding of this issue we present some complementary empirical exercises.

[14] One possibly explanation is that the shame index includes one question related to feeling humiliated, thus, the shame index and the discrimination dummy may be capturing the same information. In order to address this issue we performed all the estimates of the results section using a shame index that do not include the answer to the question referring to feeling humiliated. The results remain qualitatively and quantitatively unchanged. This suggests that the finding that being discriminated is not statistically significant does not hinge on the measure of shame used in this study. These results are available upon request.

Table 3
Life satisfaction, agency, shame, and discrimination: OLS and ordered probit estimation

	Dependent variable: life satisfaction			
	OLS		Ordered probit	
	(1)	(2)	(3)	(4)
Agency				
I Feel free to decide for myself how to lead my life:				
Somewhat true	0.321***	0.230***	0.445***	0.365**
	(0.107)	(0.0888)	(0.139)	(0.145)
Fairly true	0.502***	0.315***	0.704***	0.505***
	(0.103)	(0.0854)	(0.131)	(0.137)
Completely true	0.800***	0.458***	1.215***	0.838***
	(0.105)	(0.0876)	(0.134)	(0.141)
Shame				
Shame proneness index quintile II	−0.0328	−0.0159	−0.0599	−0.0559
	(0.0481)	(0.0374)	(0.0803)	(0.0859)
Shame proneness index quintile III	−0.101**	−0.0870**	−0.180**	−0.214**
	(0.0483)	(0.0399)	(0.0829)	(0.0881)
Shame proneness index quintile IV	−0.163***	−0.0497	−0.277***	−0.140
	(0.0577)	(0.0460)	(0.0918)	(0.0975)
Shame proneness index quintile V	−0.408***	−0.221***	−0.641***	−0.448***
	(0.0568)	(0.0475)	(0.0906)	(0.0962)
Discrimination				
Felt discriminated	−0.121**	0.0284	−0.177**	0.0847
	(0.0486)	(0.0409)	(0.0690)	(0.0733)
Unobserved component				
Z		0.276***		0.557***
		(0.00976)		(0.0218)
Socio economic and demographic				
Female	−0.0509	−0.0651*	−0.0868	−0.129
	(0.0467)	(0.0383)	(0.0781)	(0.0829)
Age	−0.0107	−0.0130**	−0.0173	−0.0269**
	(0.00772)	(0.00640)	(0.0123)	(0.0130)
Squared Age	9.01e−05	0.000126*	0.000142	0.000257*
	(7.95e−05)	(6.57e−05)	(0.000125)	(0.000132)
Income quintile I	−0.295***	−0.339***	−0.479***	−0.678***
	(0.0619)	(0.0507)	(0.101)	(0.107)
Income quintile II	−0.176***	−0.195***	−0.305***	−0.417***
	(0.0582)	(0.0492)	(0.0972)	(0.103)
Income quintile III	−0.165***	−0.177***	−0.289***	−0.389***
	(0.0558)	(0.0463)	(0.0949)	(0.101)
Income quintile IV	−0.0261	−0.0216	−0.0555	−0.0617
	(0.0519)	(0.0423)	(0.0944)	(0.101)
Years of schooling	0.00247	0.00726*	0.00416	0.0159*
	(0.00494)	(0.00405)	(0.00802)	(0.00852)
Employed	0.0849	0.166**	0.127	0.322**
	(0.0915)	(0.0752)	(0.145)	(0.153)
Inactive	0.0523	0.117	0.0809	0.220
	(0.0955)	(0.0778)	(0.152)	(0.161)
Family characteristics				
Married	0.139*	0.160***	0.208*	0.312***
	(0.0707)	(0.0557)	(0.114)	(0.120)
Widower	−0.0789	−0.0763	−0.120	−0.143
	(0.124)	(0.0992)	(0.180)	(0.189)
Single	0.0709	0.0870	0.0950	0.151
	(0.0926)	(0.0767)	(0.148)	(0.157)
Head of the household	−0.0324	−0.0206	−0.0563	−0.0429
	(0.0484)	(0.0391)	(0.0801)	(0.0848)
Has children	−0.0271	−0.0399	−0.0409	−0.0821
	(0.0425)	(0.0345)	(0.0690)	(0.0732)
Health problems				
Has a physical impairment	−0.0284	−0.0622	−0.0460	−0.120
	(0.0770)	(0.0581)	(0.108)	(0.115)
Has a psychiatric problem	0.0757	−0.0580	0.110	−0.141
	(0.155)	(0.139)	(0.247)	(0.258)
Has a chronic disease	−0.0949**	−0.116***	−0.155**	−0.237***
	(0.0431)	(0.0369)	(0.0672)	(0.0708)
Has cancer	−0.336**	−0.352***	−0.528**	−0.722***
	(0.139)	(0.135)	(0.217)	(0.227)
Other Controls				
Indigenous	0.0831	0.0716	0.151	0.165
	(0.0606)	(0.0492)	(0.0959)	(0.101)

(*continued on next page*)

Table 3 (*continued*)

	Dependent variable: life satisfaction			
	OLS		Ordered probit	
	(1)	(2)	(3)	(4)
Religious	0.139***	0.150***	0.226***	0.298***
	(0.0346)	(0.0281)	(0.0560)	(0.0596)
Have savings to go by 3 months	0.155***	0.192***	0.258***	0.404***
	(0.0398)	(0.0321)	(0.0666)	(0.0711)
Regional dummies	Yes	Yes	Yes	Yes
Observations	1,933	1,933	1,933	1,933
Adjusted *R*-squared	0.233	0.478		

Notes: Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

First, since there is a negative correlation between the two dimensions of human dignity—shame and discrimination—and the agency measures, we ran separate regressions for each of these three capabilities including all other controls. Table 12 in the Appendix C presents these results in columns (1), (2), and (3), while column (4) includes all three jointly, as before. The point estimate for the discrimination measure alone after including the personality traits control is negative but still statistically insignificant. We cannot discard a statistical power issue but it is still true that after including any of the other two capabilities' measures the effect remains insignificant. One possible explanation is that individuals might adapt over time to discrimination (Brickman, Coates, & Janoff-Bulman, 1978; Fujita & Diener, 2005; Oswald & Powdthavee, 2008). We expand on this shortly.

A second exercise aims to characterize those individuals more likely to experience agency, shame feelings and perceived discrimination in our sample. Table 5 shows the estimates of the factors that predict agency, shame proneness, and discrimination. We use the same sociodemographic, family, health, ethnicity, religiousness controls used in the previous section, including our personality traits measure.

It can be seen that financial measures such as income and savings predict all three capabilities. Interestingly, belonging to the first income quintile with respect to the fifth predicts higher agency (Column 1) and lower shame proneness (Column 2) and discrimination (Column 3), and belonging to quintiles II through IV does not have statistically significant coefficients. This suggests a strong link with income poverty. Other socioeconomic status variables such as schooling and employment status are significant correlates of agency and shame and have lower statistical significance for perceived discrimination. Regarding health problems, having a psychiatric problem is negatively associated with agency and positively associated with shame proneness; it is not significant for discrimination. Having a physical impairment or a chronic disease is positively associated with both shame proneness and discrimination but is not statistically significant for the agency measure.

Interestingly, the results confirm that shame and discrimination are distinct aspects of human dignity as explained earlier. Gender, age, years of schooling, employment status, marital status, and psychiatric problems are statistically significant correlates of shame proneness but not of discrimination. On the other hand, ethnicity (an indigenous background) predicts discrimination but not shame.

These results help us understand the nature of shame and discrimination. For example, being divorced and unemployment predict shame and are not a strong predictors of discrimination in our sample. An intuition for this pattern is that divorce or unemployment may not be readily observable for others -and even if observed they are not an obvious cue for discrimination- but could cause someone to feel lower self-esteem. At the same time, ethnicity does not predict shame and is instead a significant predictor of discrimination. This is also intuitive as indigenous ethnicity could be a source of pride and self-esteem (as opposed to shame) and has historically been associated with discrimination.

The results also hint at the importance of cultural factors. For instance, the fact that divorced individuals feel more shame than married ones may reveal the strength of a tradition rooted in Catholic norms. Chile legalized divorce only in 2004—with the strong opposition of the Catholic Church—being the last country in Latin America to do so. The stigma associated to divorce is unlikely in more liberal societies and has changed rapidly over the last decade in Chile.

Table 4
Average marginal effects for the ordered probit estimation of life satisfaction

	Pr(life satisfaction = very satisfied)
Agency	
I Feel free to decide for myself how to lead my life:	
Somewhat true	0.0864**
	(0.0351)
Fairly true	0.113***
	(0.0294)
Completely true	0.208***
	(0.0361)
Shame	
Shame proneness index quintile II	−0.0128
	(0.0196)
Shame proneness index quintile III	−0.0482**
	(0.0193)
Shame proneness index quintile IV	−0.0318
	(0.0217)
Shame proneness index quintile V	−0.0978***
	(0.0196)
Income quintiles	
I	−0.146***
	(0.0208)
II	−0.0926***
	(0.0217)
III	−0.0866***
	(0.0214)
IV	−0.0141
	(0.0229)
Other controls	
Religious	0.0676***
	(0.0132)

Notes: Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

In sum, shame and discrimination may share some predictors but are also quite distinct. Hence, it is possible that—after controlling for a large set of variables including personality traits—a mechanism such as adaptation may apply more strongly to discrimination perceptions than to shame. One plausible explanation is cultural. Chile, as other Latin American countries, is a highly unequal and segregated society,[15] and class is arguably the primary source of discrimination (see Galarza & Yamada, 2014; Núñez & Gutiérrez, 2004). At the same time, classism is so naturalized in the Chilean society that being discriminated by someone of a higher social class is to be expected and may not lead to significant psychological distress. In contrast, there could be no "cultural forces" that increase adaptation when it comes to feeling shame for being unemployed, not completing school or feeling insecure about physical appearance (lost teeth, obesity, etc.).

We conducted an additional exercise to check whether the naturalization of social class discrimination is a plausible explanation for the weak effect of discrimination on life satisfaction after including personality traits controls. Specifically, if we remove the income and savings controls while keeping the personality traits control, the regression for the discrimination variable alone yields a negative and significant coefficient. This is not the case if we remove other controls. These results are available upon request.

5. Discussion

The capabilities' approach to human development introduced by Sen marks a substantive departure from the welfarist tradition that has predominated in traditional economic analysis. Shifting emphasis from efficiency or psychological utility to freedoms and justice—in the form of substantive and procedural opportunities—has changed the problematization and evaluation of development opening multiple dimensions of human development. Still, Sen (1993) argues that "it is natural to suspect that there must be some links between welfare-achievements and freedom-achievements (and also between failures in the respective areas), but we have to examine and scrutinize those links." This paper contributes to this scrutiny.

A robust finding of this paper is not only that agency and human dignity measures significantly explain differences in life satisfaction across individuals in the Chilean society, but that these effects are large after controlling for a considerable set of sociodemographic variables, family characteristics, physical and mental health indicators, and personality traits. The magnitude of the effect of agency is roughly 1.4 times the difference in well-being between individuals in the lowest and highest income quintiles. The effect of shame is 0.7 times this difference. The results are in line with previous work by Anand *et al.* (2009, 2011) who find support for the view that psychological wellbeing is associated with a broad set of capabilities.

Our empirical analysis also shows that agency, shame, and discrimination perceptions have common predictors such as income poverty and personality traits (Table 5). More importantly, it also suggests that shame and discrimination perceptions are distinct aspects of human dignity. While gender, education, employment status, marital status, and psychiatric problems predict shame proneness and not discrimination, having an indigenous background predicts discrimination but not shame. These differences help explain why, after controlling for personality traits and a large set of sociodemographic variables, shame proneness remains a strong predictor of life satisfaction while discrimination fades out. At the same time, the weight of divorce, gender, ethnicity, or any other factor on shame and discrimination perceptions is strongly mediated by cultural factors. Thus, extending our

Table 5
Predictors of agency, shame, and discrimination

	Dependent variable:		
	Agency	Shame proneness	Discrimination
	Ordered probit	OLS	Probit
	(1)	(2)	(3)
Socio-economic and demographic			
Female	−0.0292	0.932***	−0.0137
	(0.0819)	(0.275)	(0.106)
Age	−0.0113	0.0897**	0.00535
	(0.0122)	(0.0413)	(0.0167)
Squared age	0.000159	−0.00131***	−0.000171
	(0.000123)	(0.000417)	(0.000173)
Income quintile I	−0.241**	0.732**	0.341**
	(0.0996)	(0.345)	(0.140)
Income quintile II	−0.144	0.255	0.153
	(0.0971)	(0.316)	(0.141)
Income quintile III	−0.0612	0.208	0.204
	(0.0944)	(0.293)	(0.135)
Income quintile IV	0.00355	0.0226	0.0272
	(0.0933)	(0.284)	(0.140)
Years of schooling	0.0303***	−0.122***	−0.0162
	(0.00829)	(0.0284)	(0.0113)
Employed	0.477***	−1.321**	−0.251
	(0.141)	(0.522)	(0.188)
Inactive	0.299**	−1.171**	−0.143
	(0.149)	(0.544)	(0.198)
Family characteristics			
Married	0.0220	−0.986**	−0.108
	(0.116)	(0.428)	(0.149)
Widower	−0.0230	−0.889	0.0918
	(0.187)	(0.635)	(0.233)
Single	−0.00530	−0.909	−0.0568
	(0.147)	(0.585)	(0.193)
Head of the household	0.0943	0.0908	−0.0361
	(0.0850)	(0.295)	(0.108)
Has children	−0.0931	−0.310	0.180*
	(0.0661)	(0.233)	(0.0949)
Head of the household	0.0943	0.0908	−0.0361
	(0.0850)	(0.295)	(0.108)
Has children	−0.0931	−0.310	0.180*
	(0.0661)	(0.233)	(0.0949)
Health problems			
Has a physical impairment	−0.103	0.986**	0.275**
	(0.115)	(0.429)	(0.134)
Has a psychiatric problem	−0.712***	4.382***	0.249
	(0.231)	(1.336)	(0.273)
Has a chronic disease	−0.0355	0.585**	0.180**
	(0.0669)	(0.236)	(0.0888)
Has cancer	−0.201	0.446	−0.200
	(0.214)	(0.836)	(0.285)
Other controls			
Indigenous	0.0808	0.357	0.396***
	(0.0921)	(0.323)	(0.116)
Religious	0.105*	−0.0154	−0.0367
	(0.0557)	(0.188)	(0.0753)
Have savings to go by 3 months	0.269***	−0.355*	−0.267***
	(0.0684)	(0.208)	(0.0959)
Unobserved component			
Z	0.216***	−0.566***	−0.179***
	(0.0178)	(0.0578)	(0.0237)
Regional dummies	Yes	Yes	Yes
Observations	1,933	1,737	1,913
Adjusted *R*-squared		0.149	

Notes: Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

[15] The Chilean GINI coefficient in the last decade has been around 0.5 and the top 1% of the population receives 26% of annual income. According to the OECD, the Chilean school system exhibits the highest socioeconomic school segregation in a sample of 70 countries. The largest cities are characterized by comparatively high residential segregation levels.

conclusions to different countries remains an open question for future research.

We discuss some general and more specific implications for policy and practice. First, the findings are consistent with the view that, in the data, welfarist measures can be aligned with capabilities. In this sense, our work reinforces the empirical relevance of the capabilities approach and validates the use of survey instruments to measure these capabilities. If policy analysts and policymakers care about the psychological wellbeing of the population they should care about capabilities such as self-determination, shame, and discrimination—often ignored—perhaps as much as material conditions that also affect subjective wellbeing.

Our findings support the importance of pursuing policies that advance agency opportunities and reduce shame and discrimination in society. This points to the importance of a more systematic understanding of the formal institutions and cultural mechanisms that can trigger or restrain these advancements in the different domains—at the micro-level (such as family and work), meso-level (such as neighborhoods and social life), and the macro level (such as political institutions).

With regard to macro-level institutions, an important step might be trying to disentangle the role of political rights, social rights, and security on these capabilities. In this vein, using cross-country household surveys, Inglehart et al. (2008)—show that political institutions associated with liberal democracy—voting rights, freedom of speech, freedom of religion, among others—are positively associated with perceptions of self-determination and happiness measures. To the extent that self-determination relates to the ability to control one's own destiny, it seems plausible that social insurance and public security could also have a positive influence. It might be plausible to use surveys that include SWB and capabilities' questions to assess the relative importance of political and social rights for self-determination and human dignity.

Eradicating discrimination remains a major development goal in most countries and it is beyond our scope to assess the policies that aim to reduce it. Regarding our findings, we view the fact that we obtain statistically non-robust effects of discrimination on life satisfaction, if either income or personality traits variables are included, as an important cautionary lesson. On the one hand, the result illustrates the relevance of using methods that try to account for all the relevant control factors. On the other hand, as argued above, the result could be explained by the naturalization of social discrimination practices in Chile.

In our view, a relevant policy and practical implication of the paper relates to increasing the visibility of shame, both as a policy goal and as a factor in designing effective policy responses to other goals. In Sen's writings (Sen, 2000), shame is associated with social exclusion, it is a relational deprivation normally influenced by cultural norms and practices. An important aspect of shame relates to social stratification. In our sample, the average shame value of shame proneness in the first income quintile is much larger than the average for the fifth quintile (the difference is 0.65 of a standard deviation). However, beyond the shame associated to poverty, shame proneness is also linked to horizontal inequalities. In our sample, in addition to income variables, shame is associated with gender, age, marital status, disability, and health problems. As discussed below, in principle, it could also be associated with physical appearance, immigration, ethnicity, sexual orientation, or some other group identifier.

Following the seminal work of Goffman (1963), recent work in cultural sociology identifies some of the cultural processes that give rise to cognitive and emotional responses in the form of shame feelings and low self-esteem. Specifically, Lamont *et al.* (2014, 2016) and Ridgeway (2011) emphasize the construction of shared meanings within social groups to make sense of their environment that may produce stereotypical categorization associated with stigmatization, the creation of group boundaries, and the stabilization of hierarchies. All of these ultimately serve to perpetuate inequalities and social exclusion (e.g. high status associated with competence and low status with incompetence; immigration associated with crime). In this light, reducing shame and possibly discrimination, and achieving mutual respect could be linked to the reduction of group boundaries. These boundaries will be different in each country depending on the relevant group distinctions (e.g. socioeconomic status could be central in Chile and ethnicity more important in Europe). However, to the extent that these boundaries are perpetuated by segregated interactions, policies in education and housing that affect social inclusion could play an important role in reshaping these boundaries. The role of urban policy (Wacquant, 2008) and civic education, both in early and higher education, to foster cooperation in diverse societies may be crucial (Nussbaum, 2006).

Importantly, the feelings of shame and low self-esteem may lead individuals to avoid situations that activate these feelings, leading to self-exclusion. For example, individuals ashamed of their physical appearance may avoid seeking a job to avert feeling ashamed in the interviews. Indeed, a recent study evaluates the impact of a dental program in Chile that subsidized dentures for individual who had lost teeth, showing increases in reported self-esteem and possibly better job opportunities (Gallego, Larroulet, Palomer, Repetto, & Verdugo, 2017). Similarly, patients feeling ashamed about an illness—something commonly reported by HIV and other chronic disease patients—or who may feel that they are treated disrespectfully in a health service due to race or nationality may ultimately prefer to avoid medical treatment (Lamont *et al.*, 2016). Bertrand, Mullainathan, and Shafir (2006) argues that shame of poverty may lead to additional cognitive overload in unfamiliar situations that can be an important barrier for take-up in financial inclusion programs, and discuss policy design nudges.

Another important consideration is the fact that the State is probably the main institutional agent shaping categorizations by means of the mechanisms used to allocate programs. An important critique of excessively focalized programs is that they stigmatize and segregate the poor (Lamont *et al.*, 2014; Stuber & Schlesinger, 2006). An relevant example is associated to social housing for low-income families (MacLeod, 1995; Wacquant, 2008). Another interesting example is the case of TANF and food stamps in the United States (Stuber & Kronebusch, 2004). The introduction of electronically transferred benefits is likely to avoid shame for the beneficiaries of the supplementary nutrition programs.

In sum, our study confirms the empirical relevance of the capabilities approach to human development. It shows the importance of human agency, shame, and discrimination relative to traditional measures such as income variables in explaining subjective wellbeing. Highlighting the relevance of self-determination and human dignity shifts the attention to scrutinizing the role of institutions and culture in advancing these capabilities. Including measures of these capabilities in surveys aimed at characterizing social development and policy evaluation is an important first step in this direction. Our discussion also points out at the relevance of the State -through education and social policies that affect segregation and stigmatization- in shaping the cultural boundaries that make dignity and equal respect more or less likely to prevail in a given society.

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Appendix A. Personality traits' measure

This appendix presents our implementation of the methodology of Van Praag and Ferrer-i Carbonell (2008) to obtain a variable that accounts for personality traits.

The first step is to estimate the determinants of each domain satisfaction. The domains considered are feeding, income, health, family, and housing satisfaction. To do so, we start by applying an implicit cardinalization of each of the satisfaction domain variables using the conditional expectation as follows:

$$\widehat{S}_i = E(S_i|\mu_{i,j-1} < S_i < \mu_{i,j}) = \frac{n(\mu_{i,j-1}) - n(\mu_{i,j})}{N(\mu_{i,j}) - N(\mu_{i,j-1})}$$

Table 6
POLS estimation of the determinants of domains satisfaction

	Dependent variable: Satisfaction with				
	Feeding	Income	Health	Family	Housing
Socio economics and demographics					
Female	−0.107*	0.0398	−0.0190	−0.156**	−0.142**
	(0.0564)	(0.0360)	(0.0521)	(0.0644)	(0.0563)
Age	−0.00440	−0.00271	−0.0163*	−0.00900	0.0175*
	(0.00904)	(0.00581)	(0.00845)	(0.0103)	(0.00955)
Squared age	6.92e−05	4.60e−05	0.000132	0.000119	−8.64e−05
	(9.19e−05)	(5.97e−05)	(8.79e−05)	(0.000103)	(9.73e−05)
Income quintile I	−0.461***	−0.397***	−0.164**	0.0294	−0.297***
	(0.0694)	(0.0465)	(0.0689)	(0.0814)	(0.0710)
Income quintile II	−0.256***	−0.232***	−0.115*	−0.00771	−0.248***
	(0.0653)	(0.0443)	(0.0670)	(0.0791)	(0.0680)
Income quintile III	−0.163***	−0.216***	−0.0495	0.0611	−0.182***
	(0.0610)	(0.0421)	(0.0627)	(0.0764)	(0.0654)
Income quintile IV	−0.00961	−0.0739*	0.0546	0.152**	−0.0213
	(0.0570)	(0.0408)	(0.0597)	(0.0720)	(0.0618)
Years of schooling	0.0103*	0.0123***	0.0159***	0.0230***	0.0278***
	(0.00546)	(0.00364)	(0.00541)	(0.00612)	(0.00565)
Employed	0.330***	0.320***	0.240**	0.194	−0.0612
	(0.110)	(0.0776)	(0.105)	(0.132)	(0.109)
Inactive	0.311***	0.313***	0.154	0.0545	−0.00134
	(0.114)	(0.0801)	(0.110)	(0.140)	(0.113)
Family characteristics					
Married	0.128	0.0204	0.0520	0.198**	0.183**
	(0.0899)	(0.0534)	(0.0834)	(0.0985)	(0.0877)
Widower	0.0788	0.0251	0.0437	−0.00597	0.0301
	(0.135)	(0.0849)	(0.142)	(0.169)	(0.147)
Single	0.0883	−0.0538	−0.0248	−0.0446	0.270**
	(0.112)	(0.0714)	(0.0982)	(0.132)	(0.113)
Head of the household	−0.0461	0.0269	0.0819	−0.0445	−0.0543
	(0.0572)	(0.0367)	(0.0541)	(0.0659)	(0.0579)
Has children	−0.0589	−0.0749**	−0.103**	0.109**	−0.0940*
	(0.0459)	(0.0320)	(0.0468)	(0.0551)	(0.0493)
Health problems					
Has a physical impairment	−0.181**	−0.0932*	−0.539***	0.0830	−0.0561
	(0.0843)	(0.0545)	(0.0794)	(0.0945)	(0.0834)
Has a psychiatric problem	−0.236	−0.107	−0.478***	−0.333	−0.124
	(0.178)	(0.116)	(0.145)	(0.228)	(0.199)
Has a chronic disease	−0.157***	−0.0567*	−0.394***	−0.0853	0.0354
	(0.0484)	(0.0311)	(0.0501)	(0.0547)	(0.0481)
Has cancer	−0.0385	−0.0579	−0.271	0.0557	0.0861
	(0.112)	(0.0998)	(0.169)	(0.182)	(0.165)
Other controls					
Indigenous	−0.0937	−0.0713	−0.0924	−0.158*	−0.0680
	(0.0705)	(0.0435)	(0.0659)	(0.0839)	(0.0730)
Religious	0.137***	0.0568**	0.0904**	0.140***	0.152***
	(0.0380)	(0.0254)	(0.0377)	(0.0449)	(0.0399)
Have savings to go by 3 months	0.196***	0.271***	0.233***	0.128**	0.229***
	(0.0424)	(0.0298)	(0.0441)	(0.0520)	(0.0455)
Regional dummies	Yes	Yes	Yes	Yes	Yes
Observations	1,933	1,933	1,933	1,933	1,933
R-squared	0.133	0.210	0.175	0.067	0.116

Notes: Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 7
Residuals correlation

	Feeding	Income	Health	Family	Housing
Feeding	1.000				
Income	0.430	1.000			
Health	0.321	0.351	1.000		
Family	0.297	0.184	0.224	1.000	
Housing	0.438	0.446	0.271	0.233	1.000

Note: Author's calculations based on ODHQL 2009.

Table 8
Eigenvalues of principal components analysis

	Eigenvalue	Proportion	Cumulative
Component 1	2.306	0.461	0.461
Component 2	0.857	0.171	0.632
Component 3	0.751	0.150	0.783
Component 4	0.553	0.111	0.893
Component 5	0.533	0.107	1.000

Note: Author's calculations based on ODHQL 2009.

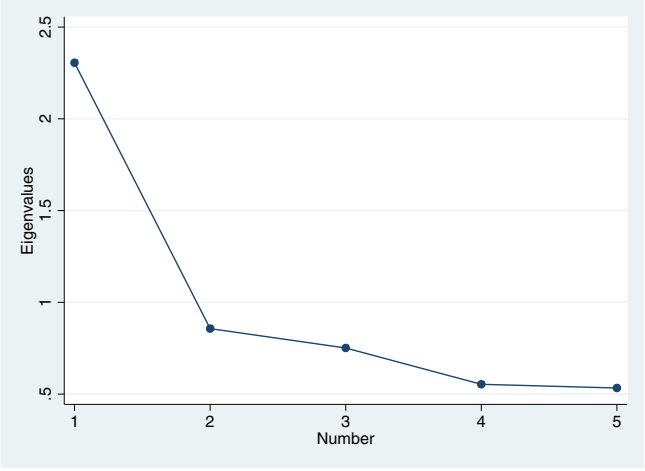

Figure 2. Scree plot of eigenvalue after principal components analysis.

Table 9
Correlation between residuals of each domain and the 1st component

	Component 1
Feeding	0.499
Income	0.487
Health	0.412
Family	0.388
Housing	0.480

Note: Author's calculations based on ODHQL 2009.

where $\{(\mu_{i,j-1}, \mu_{ij})\}_{j=1}^{J}$ are the intervals of the ith domain, and $n(\cdot)$ and $N(\cdot)$ represent the pdf and cdf of a standard normal distribution. Next, we estimate the determinants of each domain $(\widehat{S}_i)$ by OLS. This procedure is called Probit adapted Ordinary Least Square (POLS). Table 6 show these estimates.

Table 10
Mean of Z_i by agency, shame proneness, and discrimination

		Mean of Z
Agency		
I Feel free to decide for myself how to lead my life:		
Not at all true		−0.939
Somewhat true		−0.578
Fairly true		−0.115
Completely true		0.445
Shame		
Shame proneness index index quintile I		0.309
Shame proneness index quintile II		0.237
Shame proneness index quintile III		0.098
Shame proneness index quintile IV		−0.271
Shame proneness index quintile V		−0.655
Discrimination		
Have been treated in a way he or she felt prejudiced	No	0.132
	Yes	−0.592

Note: Author's calculations based on ODHQL 2009.

To explore whether the residuals contain important information about personality traits we compute the correlation matrix of the residuals of each estimation (see Table 7).

The correlations between the residuals range from 18.4% to 44.6%, suggesting common unobserved characteristics that determine SWB.

Finally, we perform a principal components analysis (PCA). Table 8 presents the results. We see that the first component has a eigenvalue greater than one and it explains 45% of the variance. On the other hand, the second component has an eigenvalue smaller than one and explains 18% of the variance. Likewise, the other three components explain less than one third of the variance and have eigenvalues smaller than one.

In order to choose the components to be used in our proxy of personality traits Z_i we rely on the rules summarized by Jackson (1993). Kaiser's rule establishes that all the components with an eigenvalue greater than one are useful. In this case, the criterion implies using only the first component. In addition, we also apply the screening method. To do so, we plot the value of each successive eigenvalue against the rank order (see Figure 2). This criterion calls to choose all of the components that precede the breakpoint in the trend of the graph. It is easy to see that the breakpoint of the trend is associated to the second component. Thus, this second criterion also points us to use the first component alone.

Since both criteria lead to the same prescription, we choose the first component of the PCA. Table 9 presents the correlation of the residuals of each domain with the first component. Each correlation is positive and the magnitudes range from 0.4 to 0.5. An interpretation of this component is that it captures genetic or psychological characteristics of the individual affecting his/her disposition to be satisfied, i.e., optimism (Van Praag & Ferrer-i Carbonell, 2008).

With this in mind, we can predict the direction of the bias in the estimates that omit our variable Z_i. The expected effect of our personality trait measure over SWB is positive. Thus, the bias depends of the covariance between the variables of interest and the measure of personality traits Z_i. Table 10 presents the mean of Z_i by agency, shame proneness, and discrimination. Results indicate that Z_i is positively correlated with agency and negatively correlated with shame and discrimination. Therefore, the sign of the bias is positive for agency and negative for shame and discrimination.

Appendix B. Heterogeneous effects according to the level of Z

Table 11
Heterogeneous effects according to the level of *Z*

	Dependent variable: life satisfaction			
	Low *Z*		High *Z*	
	(1)	(2)	(3)	(4)
I feel free to decide for myself hot to lead my life:				
Somewhat true	0.404***	0.324***	−0.137	−0.00802
	(0.108)	(0.105)	(0.184)	(0.160)
Fairly true	0.562***	0.454***	−0.0498	0.0508
	(0.103)	(0.101)	(0.177)	(0.154)
Completely true	0.710***	0.559***	0.237	0.224
	(0.108)	(0.106)	(0.177)	(0.153)
Shame				
Shame proneness index quintile II	−0.00968	−0.0101	−0.000306	−0.00325
	(0.0679)	(0.0625)	(0.0526)	(0.0459)
Shame proneness index quintile III	−0.00299	0.00315	−0.156***	−0.151***
	(0.0699)	(0.0648)	(0.0551)	(0.0510)
Shame proneness index quintile IV	−0.0469	−0.0203	−0.155**	−0.0391
	(0.0809)	(0.0727)	(0.0658)	(0.0587)
Shame proneness index quintile V	−0.230***	−0.151**	−0.374***	−0.280***
	(0.0733)	(0.0689)	(0.0766)	(0.0677)
Discrimination				
Felt discriminated	−0.0440	0.0409	0.0492	0.0414
	(0.0605)	(0.0571)	(0.0622)	(0.0559)
Unobserved component				
Z		0.262***		0.303***
		(0.0222)		(0.0214)
Socio demographics	Yes	Yes	Yes	Yes
Family characteristics	Yes	Yes	Yes	Yes
Health problems	Yes	Yes	Yes	Yes
Other controls	Yes	Yes	Yes	Yes
Regional dummies	Yes	Yes	Yes	Yes
Observations	967	967	966	966
Adjusted *R*-squared	0.234	0.338	0.222	0.371

Notes: Authors' calculations. Socio-demographic variables includes gender, age, income quintiles, years of schooling, and employment status. Family characteristics include civil status, head of household, and having children. Health problems consider physical impairment, psychiatric problems, chronic disease, and cancer. Other controls include being indigenous, being religious, and having savings to go by 3 months. Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Appendix C. Robustness check

Table 12
Life satisfaction, agency, shame, and discrimination (OLS)

	Dependent variable: life satisfaction			
	(1)	(2)	(3)	(4)
I feel free to decide for myself how to lead my life:				
Somewhat true	0.242***			0.230***
	(0.0903)			(0.0888)
Fairly true	0.348***			0.315***
	(0.0868)			(0.0854)
Completely true	0.498***			0.458***
	(0.0891)			(0.0876)
Shame				
Shame proneness index quintile II		−0.0193		−0.0159
		(0.0379)		(0.0374)
Shame proneness index quintile III		−0.115***		−0.0870**
		(0.0404)		(0.0399)
Shame proneness index quintile IV		−0.0791*		−0.0497
		(0.0458)		(0.0460)
Shame proneness index quintile V		−0.265***		−0.221***
		(0.0475)		(0.0475)
Discrimination				
Felt discriminated			−0.0239	0.0284
			(0.0411)	(0.0409)

(*continued on next page*)

Table 12 (*continued*)

	Dependent variable: life satisfaction			
	(1)	(2)	(3)	(4)
Unobserved component				
Z	0.282***	0.292***	0.302***	0.276***
	(0.00960)	(0.00930)	(0.00909)	(0.00976)
Socio demographics	Yes	Yes	Yes	Yes
Family characteristics	Yes	Yes	Yes	Yes
Health problems	Yes	Yes	Yes	Yes
Other controls	Yes	Yes	Yes	Yes
Regional dummies	Yes	Yes	Yes	Yes
Observations	1,933	1,933	1,933	1,933
Adjusted *R*-squared	0.482	0.472	0.462	0.489

Notes: Authors' calculations. Socio-demographic variables includes gender, age, income quintiles, years of schooling, and employment status. Family characteristics include civil status, head of household, and having children. Health problems consider physical impairment, psychiatric problems, chronic disease, and cancer. Other controls include being indigenous, being religious, and having savings to go by 3 months. Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

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