

The most miserable and the most blissful individuals in Brazil

André Braz Golgher
Cedeplar/Face/UFMG

Raquel Zanatta Coutinho
UNC-CH

Abstract

This paper discusses factors associated with well-being in Brazil using the World Values Survey (WVS) of 2006. The paper defines the profiles of the most blissful and most miserable individuals in Brazil concerning their responses to self-evaluated health status, marital status, unemployment status, importance given to family, self-determination, religiosity, thick trust and self-evaluated financial situation using Latent Class analysis. We defined three profiles for the most miserable in Brazil and four for the most blissful. After this, we investigated which socio-demographic aspects are associated with the distribution of individuals among the different profiles using multinomial logistic models.

Key-words: happiness, satisfaction with life, Brazil, LCA, WVS.

Área temática: Economía

The most miserable and the most blissful individuals in Brazil

1 - Introduction

Happiness was first studied by philosophers and then by psychologists. More recently, researchers in the fields of sociology and political science also analyzed the theme. The topic began to be explored in economics in the seventies and became a popular one in the nineties. Most papers in the area discuss the determinants of happiness or the implementation of public policies (Frey, 2008).

However, can we measure happiness and satisfaction with life objectively? Laynard (2005) states that happiness is an objective dimension of all our experience, and as such, can be objectively measured, even though with limitations. As is clearly demonstrated in this paper (and previous papers enumerate below), well-being can be measured with different dimensions and evaluative perspectives.

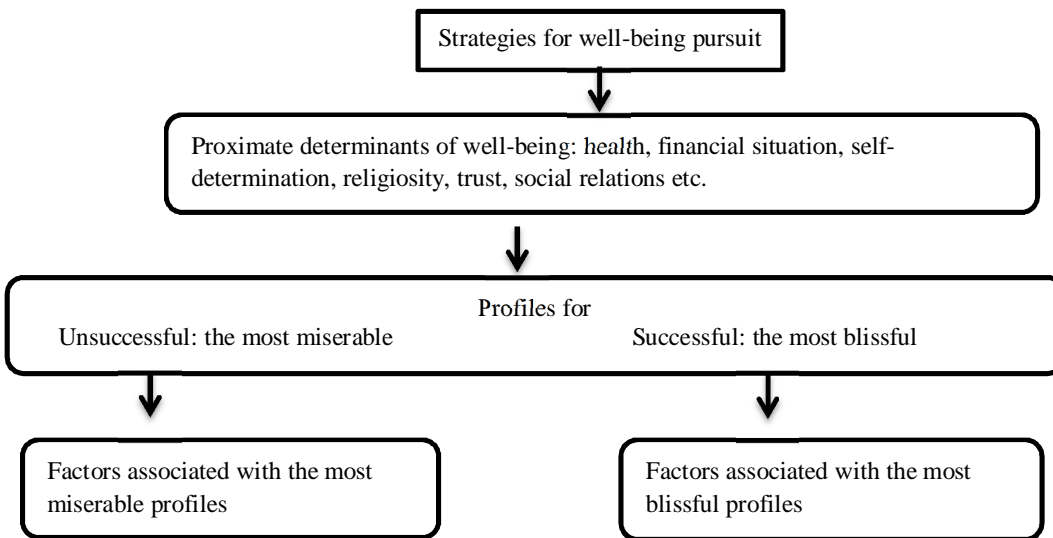
Previous papers (Golgher, 2014a,b,c) discussed the main determinants of happiness and satisfaction with life in Brazil using the World Values Survey (WVS) of the years 1991, 1997 and 2006. Among others, the explanatory variables were sex, age, ethnic group, marital status, self-evaluated health level, employment status, household income, schooling attainment and time trend. These or similar variables were analyzed in different studies (Blanchflower and Oswald, 2004; Kahneman et al, 2006; Slutzer and Frey, 2006; Yang, 2008; Frey, 2008; Laynard, 2005), also in analysis about Brazil (Corbi and Menezes-Filho, 2006; Cavalcanti et al, 2009). Other variables were also included in the discussion as determinants of well-being as those related to the family, friends and community, religion, work and leisure, freedom and self-determination, politics, finance and wealth. These or similar variables were analyzed in different studies that addressed the determinants of happiness (For instance: Kahneman et al, 2006; Slutzer and Frey, 2006; Frey, 2008; Laynard, 2005). Then the determinants of happiness in Brazil were discussed in more depth for data in 2006. Besides including the explanatory variables described above, the analysis incorporated contextual variables, such as town size, macroregion or state of residence, occupation type, sense of belonging, tolerance, number of children, and opinions about equality, government and personal fate, as well as information on general level of trust, personal savings, and specific actions. .

This paper builds upon the results of these three papers. In order to exclude confounding factors due to temporal variations (since well-being varied between 1991 and 2006), we chose to use only the most recent WVS. This, however, reduces the analytical sample size.

This paper has three main objectives and it is divided into 7 sections. Figure 1 summarizes the main objectives and sections of this paper. The first section is this introduction and the second presents a brief theoretical discussion. Section 3 presents the definitions of “most blissful and most miserable”. The fourth section addresses the first main objective of the paper, which is to compare descriptively these two groups in Brazil in the year of 2006, investigating whether there is a clear trend in the way selected variables presented in the previous papers differ between these groups and the rest of the population. Section 5 addresses the second main objective of the paper that is to infer if there are noticeable profiles among the most miserable and the most blissful specially in regard to their responses to self-evaluated health status, marital status, unemployment status, importance given to family, self-determination, religiosity, thick trust and self-evaluated financial situation. In order to do this, we used Latent Class analysis (LCA) to obtain these profiles of individuals for the whole sample, followed by each group separately. Some external factors might influence the choice of a particular path that may lead to misery or to blissfulness. Based on the results obtained for the profiles in Section 5, in section 6 we address the third main objective of the paper, which is to

analyze some of the factors associated with these paths using multinomial logistic models. Last section concludes the paper.

Figure 1 – Paper’s scheme



2 – Theoretical discussion

In general societies are not happier today than they were fifty years ago, although they are much wealthier and somewhat healthier (Buettner, 2010; Laynard, 2005). This last author emphasized some truths about happiness studies that might explain this apparently paradox.

Then what are the sources of happiness? According to Laynard (2005), humans are deeply social beings, and due to this fact, we want to trust others. Different variables that are associated with these topics, such as marriage, unemployment, trust, family, friends and religiosity significantly affects happiness and satisfaction with life.

The author states that extra income increases happiness less and less as people get richer. That is, income is weakly related to well-being in many settings, although subjectively evaluated financial situation may matters more.

However, it should be emphasized that correlation do not implicate in causality. Nevertheless, causality can be assumed in many circumstances, and in some associations, there might be a reverse causality. For instance, healthier individuals are happier and/or happier individuals are healthier?

In this same vein, Frey (2008) enumerated ten keys to personal happiness. They are shown below in approximately the same order of importance proposed by the author.

The first key to personal happiness proposed by the author is “Don’t worry if you aren’t a genius” (weight 0) (Frey, 2008, p. 151). That is, intelligence is not or is mostly very weakly related to different levels of well-being. In part, this occurs because people who are more intelligent also have greater expectations, which are the benchmark for comparisons with actual realizations. Previously, we did not discuss intelligence directly, however, we observed that educational level, a weak proxy for intelligence, is very weakly associated with happiness or satisfaction with life.

The second key proposed by Frey (2008, p. 151) is “earn more money (up to a point)” (weight 0.5). Therefore, following this author, money matters, nevertheless the associations are weak and only up to a threshold. Similarly, previously we observed that income was weakly, although significantly, associated with well-being, mostly possibly due to indirect effects on health and unemployment.

The third key is “grow old gracefully” (weight 0.5) (Frey, 2008, p. 151). Following the author, older individuals tend to be happier if other factors, such as health and financial situation, do not deteriorate. We verified that age was very weakly associated with well-being in Brazil. However, health tends to deteriorate with age, and this is one of the most important determinants of well-being. Moreover, being married and having higher levels of self-determination, both related to growing old, at least up to a point, are also related to higher levels of satisfaction with life. Hence, we could slightly change the statement proposed by Frey (2008) to “grow old gracefully healthy, married and with freedom and control over life.”

Then the author stated “stop comparing your looks with others” (weight 1) (Frey, 2008, p. 152). More broadly, we propose “do not compare yourself with others”. In this paper, we discussed points that are directly modified by comparisons because they are self-evaluated, such as financial situation and health, which are important determinants of well-being.

The fifth key is “be religious, or believe in some other system” (weight 1.5) (Frey, 2008, p. 152). We discussed this point extensively previously, and observed the convincing association between religion and well-being levels. Individuals who considered that God and religion are important for their lives, who classified themselves as a religious person, and who attended religious services more than once a week tended to be happier and more satisfied with life.

Then, there is the statement “provide help for others” (weight 1.5) (Frey, 2008, p. 152). Here we discussed some related points, such as trust, importance given to family, sense of belonging, sense of citizenship/membership and sense of being autonomous. All these factors were consistently related to well-being. To consider oneself part of a family, community and a country with trustful relationships were observed to be one of the most decisive determinants of well-being.

After this, comes “desire less” (weight 2) (Frey, 2008, p. 152). Other things being equal, desiring less is directly related to having a better subject evaluated financial situation, one of the most decisive determinants of happiness and satisfaction with life.

The eighth point is “make friends and value them” (weight 2.5) (Frey, 2008, p. 152). We discussed the topic “importance given to friends”, which was not strongly associated with well-being levels. However, many other topics related to friends did show a strong relationship with happiness and satisfaction, such as thick trust (Putnam, 2000), sense of belonging, sense of citizenship/membership and sense of being autonomous. Interestingly, trust in friends and acquaintances were much more related to happiness and satisfaction than general trust.

The ninth is “get married” (weight 3) (Frey, 2008, p. 152). We discussed this point extensively formerly: one of the most important features to determine well-being in Brazil is to get married. Remarkably, also as emphasized by Frey (2008), cohabitation does not have the same enhancing effect on well-being as getting married, probably due to greater uncertainties. Having children did not show a strong correlation with well-being, possibly with a negative sign, especially for three or more children. Therefore, we may write “get married, but not necessarily have kids”.

Lastly, the statement “Make the most of your genes” (weight 5) (Frey, 2008, p. 151). The author emphasized that it is useful to develop a personality and a life style that support happiness and that is suitable to personal genes. We did not address genes specifically before, but we do discuss in this paper different patterns of attitudes and beliefs that represented unsuccessful and successful

strategies of well-being pursuit. That is, as we will demonstrate in the next sections, different individuals face different realities and possibilities and may search happiness accordingly.

3 – The definitions of the most miserable and most blissful individuals in Brazil

Assuming that the search for happiness is part of the calculus of conscious choice, individuals are ultimately looking forward to achieving the same goals, the goal of being happy and accumulating resources that bring satisfaction to life. The previous papers have found that certain social factors are associated with more happiness and more satisfaction, such as higher income, good health, marital status, among others.

However, the variability of happiness levels cannot be entirely explained by social structure. Literature has found links in genetics, biological and even conjunctures that have affected one's life and made them change their perspectives of what brings true happiness. In this sense, what brings happiness is personal and sometimes abstract, so the trajectories to happiness might vary from one person to another and they could be, by nature, non-observable and latent.

The proximate determinants of well-being, such as those extensively discussed formerly, are observable and measurable. Some persons are unsuccessful in their pursuit for happiness and satisfaction, while others are successful. We named the successful individuals “the most blissful” and we named the least successful as “the most miserable”. We believe that some miserable individuals might pursue common unsuccessful strategies, while some blissful persons may follow similar successful paths to well-being.

The happiness variable contains three categories of responses: 1 – Not Happy; 2 – Quite Happy; and 3 – Very Happy. The categories for level of satisfaction ranged from 1 – Totally dissatisfied, to 10 – Totally satisfied. Table 1 shows the distribution of individuals for these two variables conjointly.

We are interested in looking more in-depth at two different groups of subjects: the most blissful and the most miserable. In order to pick these two groups from our sample, we turned to their distribution according to levels of happiness and satisfaction.

As shown in bold in Table 1, only 186 people considered themselves to be very happy and at the same time fully satisfied with their life. This group is then considered the most blissful. A similar procedure to define the most miserable, those who were not happy and very dissatisfied of life, counted only 12 individuals. In order to obtain a reasonable sample size for this category, we decided to include anyone who has classified herself or himself as “not happy”, and classified herself or himself in the first six lowest categories for life satisfaction and in the first three categories for life satisfaction among the “Quite happy”. This rather arbitrary definition for the most miserable counted 116 individuals, a small sample, but that enabled further analysis.

Table 1 – Distributions of respondents according to their level of happiness and life satisfaction. Subjects in bold are considered most miserable and subjects in italic are considered most blissful.

Life Satisfaction	Level of Happiness			Total
	Not Happy	Quite Happy	Very Happy	
Totally dissatisfied	12	16	1	29
2	3	9	3	15
3	9	8	3	20
4	10	18	4	32
5	31	107	23	161
6	18	82	28	128
7	17	121	48	186
8	15	228	112	355
9	8	94	99	201
Totally satisfied	18	160	<i>186</i>	364
Total	141	843	507	1491

Source: WVS, 2006.

The following section compares these two groups regarding their determinants of well-being.

4 – Descriptive statistics of the most miserable and most blissful individuals in Brazil

The main objective of this section is to compare the most miserable, the most blissful individual in Brazil in 2006 according to variables previously discussed, and that were potentially associated with well-being. Table 2 brings the distribution of binary, categorical and nominal variables followed by Linear-by-Linear tests of association. Table 3 brings the distribution of continuous variables followed by an ANOVA with a Bonferoni ad hoc test of significance.

Table 2 shows the results for the variables which are expressed as contingency tables. Notice that the table shows the results for the most miserable, the other individuals of the sample and the most blissful. One of the most traditional measures to test independence in contingency tables, the Pearson's chi-squared test, presents some limitations in an analysis as the one performed here, as this test does not take into account the ordering of rows or columns. The different groups of well-being have a clearly ordered nature from the most miserable to the most blissful, with the group “others” in the middle. Moreover, many variables that are not nominal also present an ordinal nature, for instance, town population size. Therefore, the results for the tests of significance presented in the table are based on the Linear-by-Linear Association, and the significant differences are shown with asterisks.

We begin the discussion with the binary variables, which are on the top of the table. The proportion of males and of whites in the most miserable group, the other individuals in Brazil and the most blissful were rather similar or did not shown any clear difference. Thus, differences for sex and race/ethnicity group were small and not statistically significant associated with wellbeing, as consistent with previous papers. For the importance given to the family, differences were significant, as the proportion of individuals who considered family very important varied from 71.6% for the most miserable to 93.5% for the most blissful. The proportion of individuals who did not trust others in Brazil did not differ significantly between the most miserable, the other individuals in the population and the most blissful, as values were extremely high with no trend between the three groups. The previous paper emphasized that the most decisive type of trust to

determine well-being level was “thick trust”, which is the last variable discussed in table 3, with significant differences between the groups of individuals.

Table 3 also presents three other binary variables, those associated with tolerance. The numbers represent the proportion of individuals who did not tolerate a particular group as being one’s own neighbor. Two trends were non-significant: those for individuals who tolerated neighbors of different ethnicity, with HIV/Aids or immigrants, and those who tolerated drinkers/drug addicted. Those who tolerated homosexuals were overrepresented among the blissful, and differences were significant.

The other variables presented in the table are categorical or nominal. The significance test is the same as described for binary variables. Similarly as sex and ethnic group, differences for age were not significant. For marital status, overall differences were statistically significant. The married were underrepresented among the miserable (33.6%), while being overrepresented in the blissful group (52.7%). The contrary occurred for cohabitation and separated/divorced. Tendencies for single/never married and widowed were weaker or nonexistent.

Health, as discussed in the previous papers, is one of the most crucial among the determinants of well-being. Here, the trends were extremely clear and differences were significant: healthier individuals were underrepresented among the miserable and overrepresented in the blissful group; the opposite was observed for persons with poor and fair health.

For employment status, differences were also significant, however, less evident than for health. Nevertheless, two trends are more remarkable. The first is that full time workers are underrepresented among the most miserable and overrepresented among the blissful. On the other hand, the unemployed are overrepresented among the miserable, and the underrepresented in the blissful. A second tendency is that, although not as notable, the proportion of retired people seems to decrease as the level of well-being increases. For the other employment status, trends were not clear.

Does money matter? For income, differences are significant and one can observe important trends. The first income level group, or the poorest, is overrepresented among the most miserable while the last income group, the richest, was underrepresented among the most miserable and overrepresented among the blissful. Moreover, trends differ between the first four income groups, when compared with the last four groups. For the first, proportions tend to decrease with an increase in well-being, and the opposite occur for the latter

Differences for education levels were not significant. The same was observed for occupation type and the number of children. That is, these variables were not significantly associated with well-being in the perspective described here.

Frequency of religious attendance seems to matter. Individuals who attended religious meetings less often than once a month were overrepresented among the most miserable, and persons who attend more than once a week were overrepresented among the most blissful.

Individuals who lived in small towns, those with fewer than 100 thousand inhabitants, tended to be overrepresented in the blissful group, while the most miserable tended to be living in cities with more than 100 thousand inhabitants. Differences for geographic regions were also significant. Inhabitants of São Paulo, and Central-West and South regions were overrepresented among the miserable, and the contrary occurred for individuals who lived in Minas Gerais/Espírito Santo states and the Northeast/North regions. No tendency was observed for the state of Rio de Janeiro.

For autonomous individual, national pride and thick trust, differences were significant and as expected. Individuals who considered themselves autonomous, who were not proud of their

nationality and who did not trust friends and acquaintances were overrepresented in the miserable group and underrepresented in the blissful one. The contrary occurred with those who did not agree they were autonomous, were proud of their nationality and trusted friends and acquaintances.

Table 2 – Proportion of respondents who are miserable, in between according to selected characteristics.

Factors	Percentage in each group (%)		
	Miserable	In between	Blissful
Male	39.7	48.7	46.8
White	45.6	53.5	46.1
Family*	71.6	86.8	93.5
Trust	96.5	89.7	93.5
Tolerance			
Ethnic/Aids/immigrants	22.8	17.2	25.9
Drinkers/drug addicted	75.7	79.1	72.6
Homosexuals*	20.0	20.7	29.0
Age groups			
15-24	20.7	19.8	21.9
25-34	27.6	22.3	20.9
35-44	18.1	20.9	22.5
45-54	12.9	17.5	17.6
55-64	11.2	10.9	11.8
65 + years	9.5	8.6	5.3
Marital status*			
Married	33.6	40.8	52.7
Cohabitation	23.3	16.4	14.0
Separated/Divorced	11.2	9.1	7.0
Widowed	6.0	5.7	6.5
Single/Never married	25.9	28.0	19.9
Health levels*			
Poor and fair health	50.0	24.2	21.0
Good health	44.0	49.5	31.7
Very good health	6.0	26.4	47.3
Employment status*			
Full time	17.7	30.5	30.2
Part time	6.2	5.0	6.6
Self employed	19.5	18.7	22.0
Retired	15.0	13.7	11.0
Housewife	12.4	10.2	12.1
Students	1.8	5.6	2.2
Unemployed	25.7	15.7	14.3
Income*			
Income 1	24.1	11.2	14.2
Income 2	12.1	10.1	8.2
Income 3	16.4	15.2	10.4
Income 4	18.1	15.9	13.1
Income 5	15.5	20.9	24.0
Income 6	9.5	10.7	12.6
Income 7	1.7	8.1	4.9
Income 8	2.6	7.9	12.6
Schooling level			
Less than elementary school	42.2	33.4	41.1
Elementary school	12.9	13.6	15.1
Less than high school	12.9	9.6	11.9
High school	26.7	25.8	22.2
Some university level	0.0	7.8	4.9
University degree	5.2	9.8	4.9
Religious service attendance*			
Less than once a month	44.8	34.3	31.5
Once a month	12.9	18.1	15.2

Once a week	20.7	26.9	23.9
More than once a week	21.6	20.7	29.3
Population*			
< 20	15.5	16.2	17.8
20 to 50	10.3	14.4	16.8
50 to 100	10.3	12.0	18.9
100 to 500	30.2	27.2	20.5
> 500	33.6	30.2	25.9
Region*			
North/Northeast	37.1	28.7	24.0
Central-West	15.5	20.4	27.3
MG/ES	10.3	6.4	5.5
RJ	10.3	17.6	21.3
SP	10.3	13.4	10.4
South	16.4	13.5	11.5
Job type			
Never had a job	13.5	16.9	8.5
Employer/Manager	3.6	6.9	8.5
Professional	8.1	7.9	5.1
Non-manual	3.6	8.7	8.0
Skilled-manual	12.6	17.5	18.8
Semi-skilled-manual	25.2	15.9	16.5
Unskilled-manual	24.3	15.3	19.3
Agricultural	8.1	7.3	9.7
Autonomous individual*			
Agree	30.7	8.0	8.2
Disagree	42.1	47.4	33.5
Strongly disagree	27.2	44.6	58.2
National pride*			
Not very proud	29.8	37.1	59.9
Quite proud	43.9	46.7	31.3
Very proud	27.2	16.0	10.4
Number of children			
Zero	23.5	30.3	21.4
One	18.3	17.6	13.9
Two	21.7	20.8	32.6
Three or more	36.5	31.3	32.1
Trust- Friends/Acquaintances*			
Trust completely	3.5	14.5	19.6
Trust a little or more	41.7	51.3	46.2
Not trust very much or less	54.8	34.2	34.2

Source: WVS, 2006.

Note: * $p < 0.05$ (Statistically significant differences)

Table 3 brings the results for the continuous variables. The number represents the mean value for each of the three groups: the most miserable, other individuals in between, and the most blissful. The significance test is no longer the one used for the contingency tables, but the ANOVA with Bonferoni ad hoc test.

For some variables, such as hard work, thin trust, equality, private/government, people/government, competition and personal fate, differences were non-significant. That is, the values between the groups did not differ significantly. These findings corroborate the previous analysis, which indicate that these mentioned variables were not remarkably associated with well-being levels. On the other hand, for financial situation, self-determination, and sense of citizenship/membership, all values differed significantly among the groups, as expected by the previous analysis: individuals with greater well-being level had a better self-evaluated financial situation, more self-determination and a greater sense of citizenship/membership. For other variables, such as political position, religiosity and liberalism, the values for the blissful group differed significantly from the other groups. That is,

individuals in the blissful group tended to be more right wing, more religious and less liberal. For benefits, the values differed significantly for the miserable group, who tended to think that it is reasonable to pursue benefits from the government. Interestingly, the most miserable tended to save money in greater proportions than other groups.

Table 3 – Mean values of selected continuous variables according to groups: miserable, others in between and blissful

Factors	Miserable	In between	Blissful
Hard work	5.2	4.7	4.4
Thin trust	2.4	2.9	2.6
Equality	5.8	5.6	6.0
Private/Government	5.6	5.4	5.4
People/Government	6.6	6.7	6.4
Competition	4.4	4.2	4.0
Personal fate	6.3	7.1	6.4
Finance	4.3*	5.9*	6.8*
Freedom	6.7*	7.7*	8.7*
Sense of citizenship/membership	3.7*	4.3*	4.8*
Political position	4.7	4.7	3.9*
Religiosity	2.1	2.2	2.5*
Liberalism	17.5	16.7	14.5*
Benefits	12.5*	10.1	9.6
Savings	2.4*	2.2	2.2

Source: WVS, 2006.

Note: * $p < 0.05$ (Statistically significant differences)

This section gave an overview of the differences between the most miserable and the most blissful individuals in Brazil. Most trends corroborated the findings of the previous papers, pointing the variables that were most strongly correlated with well-being. In the next section, we base on these findings to elaborate profiles for the most miserable and most blissful individuals.

5 – Profiles of individuals in Brazil

This section address the second main objective of this paper, which is to observe if there are profiles, or subtypes, for the most miserable and for the most blissful individuals in Brazil. The objective is to try to observe if the main determinants of well-being emerge in specific patterns in any of these groups. First, we present the applied methodology and then the results.

5.1 - Methodology

We apply the Latent Class Analysis (LCA) as the statistical procedure to determine these profiles. In particular, the method is commonly used in the social sciences to group respondents based on their patterns of answers, creating a sub-group of them. Previous studies have used this technique to determine patterns of youth independence (Manzoni, 2014), family formation (Amato et al, 2008), religiosity (Pearce and Denton, 2011).

The LCA is a powerful procedure to determine patterns and profiles, and also to evaluate subtypes of related cases. It resembles cluster analysis (Hair et al, 2009) and Grade of-Membership (GOM) analysis (Manton and Vertrees, 1984) in many aspects. The LCA has some straightforward advantages when compared to this first technique as it creates mutual exclusive groups of observations, similarly to cluster analysis, however, class membership is "fuzzy", differently than

the crispy nature of cluster membership. Due to this “fuzzy” aspect for class membership, the LCA resembles GOM analysis, although the first incorporates some features, as the possibility to use covariates, which are not present in the last.

Here we apply this procedure to analyze pathways of well-being. Our hypothesis is that different responses about levels of trust, self-rated health, importance given to family, self-evaluated financial situation, self-determination and religiosity will yield different subtypes of miserable and blissful people. We used SAS 9.3 to perform the LCA using the PROC LCA procedure to create subgroups based on the responses to the six variables mentioned above.

Variables and covariates underwent slightly modification in order to be utilized as Latent Classes. The variables and categories used are: self-rated health (0 – Very poor, poor and fair; 1 - Good and very good); Marital status (0 – Non-married; 1 – Married); Unemployment status (0 – Non-unemployed; 1 – Unemployed); Importance of Family (0 – Not important or important; 1 – Very important); self-determination or individual’s freedom of choice and control over life (1-A little, 2-some, 3– A great deal); religiosity (1 – Less religious, 2 – somewhat religious, 3 – very religious); thick trust (1 – Not trust very much or not at all, 2 – Trust a little, and 3 – Trust completely); Self-evaluated financial situation (1 – Very dissatisfied, 2- Dissatisfied, 3 – Satisfied and 4 – Very satisfied). Besides these variables, two others indicating if the individual was among the most miserable (0 – No; 1 – Yes) or among the most blissful (0 – No; 1 – Yes) were also used to define the profiles.

There are different measures of goodness-of-fit that can be used in order to choose the number of mutually exclusive patterns, or latent classes, that emerged. For instance, Amato et al (2008) used BIC, Entropy and Lo-Mendell-Rubin likelihood and concluded that for their study they should choose seven profiles, or latent classes, for family formation pathways. Manzoni (2014) used the BIC and AIC measures and concluded that her model of pathways to adulthood should have 4 latent classes of transitions into adulthoods. We also used these two measures to define the optimal number of latent classes for the Brazilian population, for the most miserable and for the most blissful groups, as will be seen in the following paragraphs.

Latent Class Analysis were performed separately first for the whole sample, then for the group of most miserable people, and finally for the group of most blissful. For the whole sample, these two measures of goodness-of-fit indicated we should include six profiles, which are shown in Table 4. For the most miserable, these two measures of goodness-of-fit indicated that we should include two or, as second choice, three groups. After analyzing these two possibilities, we chose to discuss the results for three different Latent Classes, because they were empirically more insightful. Table 5 shows these classes. For the most blissful, these measures suggested that we should include three or four profiles, and due to empirical results, we chose the last option, as presented in Table 6.

The gamma parameters are the Latent Class membership probabilities, or roughly the percentage of people who belong to each class: the highest the value, the strongest the salience of that class in comparison with the others.

The rho parameters are the variable probabilities conditional on latent class membership. In other words, they indicate the average value of a certain factor (for example, religiosity) for each of the different classes. Through this number one can observe the main characteristics of the observations that are located in each class and be able to describe their subgroups.

Latent Class Analysis allows each observation in the database to have one level of membership (or a probability of belonging) to each latent class. These are called “posterior probabilities” and they show the probability that someone in the sample will be classified in a certain class. We also obtained the posterior probabilities for each observation for each latent class and they will be used

to assign one class to each person in the sample, based on their class they have the highest probability of assignment.

5.2 – Results

First, in the next subsection, we describe the results for the whole sample. In subsection 4.2.2, the most miserable and most blissful are portrayed.

5.2.1 – General population

Table 4 shows the results for the six profiles obtained for the whole sample. The lower panel of the table summarizes the main findings for each profile.

First, notice that the latent class membership probabilities of the first and third profiles are much larger than for the other four. That is, these extreme profiles characterize the majority of the sample.

For easiness of interpretation, the rho parameters for each variable in each profile were transformed into five categories: Low, Low to average, Average, High to average. If the value for a specific variable in a particular profile was much lower than the average found for the WVS sample, the rho parameter was classified as “Low”. If the value was slightly below the sample mean, the classification was low to average (L/A). If it was around the sample mean, the rho was classified as “Average”. If it was slightly above the mean or well above the mean, the categories are respectively “High to average” (H/A), and “high”. In addition, when there wasn’t any clear tendency the rho values were classified as NT, what stands for No Tendency.

For instance, profile 1 characterized individuals with much worst financial situation than the overall sample, and therefore for this variable in this profile, the values were lower than sample mean, and the variable was classified as low. In this same profile, for health levels, the values were similar to overall sample, and they were classified as “Average”. For religiosity, the values were slightly above sample mean (H/A), and for importance given to family, they were much higher than for the sample (High). We analyzed each profile using these six categories for each variable.

First, notice that profile 5, characterized the most blissful individuals, while profile 6, the most miserable. Moreover, profile 2 partially characterized the most miserable. The other three, including both with the highest latent class membership probabilities, featured the rest of the population.

All the other variables used in the LCA to determine the profiles are positively correlated with well-being, with the exception of unemployment status, which is negatively correlated. Hence, it is expected that most variables will be classified as low, low to average or average for the most miserable profiles and the contrary for the most blissful profile.

We begin the discussion with profile 5, the profile that characterized the most blissful. As expected for variables other than unemployment status, most variables tended to have values above the sample mean with values classified as H/A and High. The most distinguished features of the profile are the high values for marital status, that is, the proportion of married individuals is high, importance given to family, self-determination, and religiosity. In addition, the values for financial situation were slightly above sample mean. The other three variables, health levels, employment status and thick trust showed values around the sample mean or did not present any clear tendency. Given these characteristics, this profile represents the *most blissful*.

Conversely, profile 6 characterizes the *most miserable*, with low values for health levels, for self-determination, and for thick trust, and high values for unemployment, i.e., the proportion of unemployed is high. In addition, financial situation showed a low to average value. Three variables showed values around the sample mean, which are marital status, importance given to family and thick trust.

Profile 2 characterizes those who were neither miserable nor blissful. That is, this pattern is mostly a profile for general population, although they tend to be slightly more miserable. The main features of this profile are the low values for marital status, low importance given to family, and low religiosity. Besides, unemployment values are reasonable high, and thick thrust values are from low to average. Given this characteristics, we named this group the *lonely, so moderate miserable* individuals.

The other three profiles characterize individuals who were neither miserable nor blissful. Profile 1 had as its main features the high value for importance given to family, the high to average value for religiosity and the low value for financial situation. Profile 3 showed high values for health, high to average for unemployment and high for importance given to family. Comparing this two profiles, with a jointly probability of approximately 0.75, both showed high values for importance given to the family, a common feature of Brazilians. Summarizing, profile 1 characterizes the *financially poor but religiously rich individuals*, while profile 3 features the *happy because I am healthy* ones.

Profile 4 also characterizes non-miserable and non-blissful individuals, but with rather different features than the other two profiles. Unemployment status values are low, the value for importance given to family is from low to average, and financial situation has a high value. That is, given these characteristics, the profile was named the *financially rich, non-unemployed individualistic* individuals.

Table 4 – General profiles for the Brazilian population

Variables	Profiles					
	1	2	3	4	5	6
Blissful	Low	Low	Low	Low	High	Low
Miserable	Low	L/A	Low	Low	Low	High
Health levels	Average	Average	High	Average	Average	Low
Marital status	Average	Low	Average	Average	High	Average
Unemployment status	Average	H/A	L/A	Low	Average	High
Importance given to family	High	Low	High	L/A	High	Average
Self-determination	Average	Average	Average	Average	High	Low
Religiosity	H/A	Low	Average	Average	High	Average
Thick trust	Average	L/A	Average	NT	NT	Low
Financial situation	Low	Average	Average	High	H/A	L/A
Gamma parameters	0.36	0.052	0.39	0.046	0.10	0.053
Main characteristics						
Profile 1	<i>Financially poor but religiously rich</i>					
Profile 2	<i>Lonely, so moderate miserable</i>					
Profile 3	<i>Happy because I am healthy</i>					
Profile 4	<i>Financially rich, non-unemployed individualistic</i>					
Profile 5	<i>The most blissful</i>					
Profile 6	<i>The most miserable</i>					

Source: WVS, 2006.

Note: NT = No tendency, L/A = Low to average and H/A = high to average

5.2.2 Results for the subtypes of miserable and blissful individuals

Besides from creating this general characterization of the Brazilian population using LCA (Table 4), we also created sub-types of more blissful and more miserable by running LCA restricting the sample to first the most miserable (Table 5), and then to the most blissful (Table 6). Given this more focused analysis, we excluded the variables “blissful” and “miserable” for the composition of the new Latent Classes. Moreover, due to the objectives of the following presentation, we did not include the variables marital status and employment status while defining the new profiles, or subtypes, of blissful and miserable. They will be used as covariates in the next section of this paper.

Table 5 shows the results for the three subtypes for the most miserable, with a summary in the lower panel. These three profiles indicate different paths to misery. First, notice that the latent class membership probability of the first profile is much larger than for the other two, and the third is slightly more probable than the second is.

We analyze each profile for the most miserable using the same five categories. First, notice that all remaining six variables are positively correlated with well-being, hence it is expected that most variables will be classified as low, low to average or average. As expected, only importance given to family in profile 1 showed a high to average value, and none had a high value.

Profile 1 has as its main characteristic the low level for financial situation. That is, this variable is the one that mostly differs between this profile and the other two. Health levels, self-determination and thick trust had low to average values, and differed slightly from overall population values. All these features are associated with the low levels of well-being. The variables religiosity and importance given to family showed respectively a similar value and a slightly higher value compared to overall population. Given these features, this profile was entitled *financially poor miserable* individuals.

The second profile has as its main aspects the low levels of health and thick trust. Besides, the profile has somewhat lower levels than overall population for importance given to family, religiosity, and financial situation. One variable did not show a clear tendency, self-determination, and was classified as no tendency (NT). We named this profile the *unhealthy distrustful miserable* individuals.

The third profile had low levels for importance given to family, religiosity and thick trust. In addition, it had slightly smaller values for health, while the values for self-determination and financial situation were similar to overall population. The profile was entitled the *lonely miserable* individuals.

For each individual among the most miserable a posterior probability was assigned for each profile. While some people belonged totally to just one category (i.e., they received a posterior probability of 1 or close to 1 in a specific profile), a mixture of profiles was more common to find. For instance, some individuals might be financially poor, unhealthy and distrustful and be categorized by profiles 1 and 2, with a posterior probability of $\alpha \in (0,1)$ in one profile and $1 - \alpha$ in the second.

Table 5 – Profiles for the most miserable

Variables	Profile 1	Profile 2	Profile 3
Health levels	L/A	Low	L/A
Importance given to family	H/A	L/A	Low
Self-determination	L/A	NT	Average
Religiosity	Average	L/A	Low
Thick trust	L/A	Low	Low
Financial situation	Low	L/A	Average
Gamma parameters	0.572	0.199	0.230
Main characteristics			
Profile 1	<i>Financially poor miserable individuals</i>		
Profile 2	<i>Unhealthy distrustful miserable individuals</i>		
Profile 3	<i>Lonely miserable individuals</i>		

Source: WVS, 2006.

Note: NT = No tendency, L/A = Low to average and H/A = high to average

Table 6 shows the results of subtypes for the most blissful group, also with a summary in the lower panel. Notice that, contrary to the observed for the most miserable, for the blissful values tended to be higher than the overall population. Most variables showed a high or a high to average value when compared to overall population.

The first profile had a latent class membership probability of 0.374, the highest value among the four groups. Only one variable had a remarkable higher level than overall population, which was health level. Other four variables showed values slightly higher than overall population, such as importance given to family, self-determination, religiosity and financial situation. Only one variable showed similar values as the Brazilian population, which was thick trust. This profile was entitled the *healthy blissful* individuals.

The second profile had a smaller latent class membership probability (0.159). Only self-determination showed much higher values than overall population, while importance given to family, religiosity and thick trust were somewhat above the overall mean. On the other hand, although health levels and financial situation showed smaller values than overall population, the profile still characterized blissful individuals. Given these characteristics, this profile was named the *blissful self-determined unhealthy and financially poor* individuals.

The third profile had four variables with high levels: importance given to family, self-determination, religiosity and financial situation. Moreover, health levels had high to medium values. Only thick trust did not show any tendency. Given that 5 out of 6 variables had at least high to medium values, this profile was entitled the *generalized blissful* individuals.

The last profile for blissful individuals showed high levels for self-determination and high to medium values for religiosity and financial situation. On the other hand, values for trust were low, for importance given to family were low to average, and for health was similar to overall population. Therefore, this profile was entitled the *blissful self-determined distrustful* individuals.

Table 6 – Profiles for the most blissful

Variables	Profile 1	Profile 2	Profile 3	Profile 4
Health levels	High	Low	H/A	Average
Importance given to family	H/A	H/A	High	L/A
Self-determination	H/A	High	High	High
Religiosity	H/A	H/A	High	H/A
Thick trust	Average	H/A	NT	Low
Financial situation	H/A	Low	High	H/A
Gamma parameters	0.374	0.159	0.285	0.183
Main characteristics				
Profile 1	<i>Healthy blissful individuals</i>			
Profile 2	<i>Blissful self-determined unhealthy and financially poor individuals</i>			
Profile 3	<i>Generalized blissful individuals</i>			
Profile 4	<i>Blissful self-determined distrustful individuals</i>			

Source: WVS, 2006.

Note: NT = No tendency, L/A = Low to average and H/A = high to average

In conclusion, Table 5 showed the characteristics for the three profiles, or subtypes, associated with the most miserable individuals. Profiles 1 and 2 suggest that individuals with a low or low to average values for financial situation and health levels are miserable. That is, these two factors are sufficient to determine misery. Profile 3 suggests that low levels for importance given to family, religiosity and thick trust are another unsuccessful path to well-being. Notice that self-determination seems not to be very decisive as a conjointly determinant of well-being.

Table 6 characterized the four profiles, or subtypes, for blissful individuals. While comparing them, one variable showed an outstanding position: self-determination. It is high in three profiles and high to average in a fourth. The same occurs with religiosity, but in a smaller degree (one profile with high values and three others with high to average). These findings suggest that these two variables together are necessary but not sufficient condition to determine blissfulness. Profile 4 suggests that these two variables with a little help of financial situation would implicate in blissfulness. Moreover, profile 2 indicate that self-determination and religiosity with a little help of family and thick trust can overcome low levels of health and financial situation, what otherwise would promote misery. The other two profiles were quite similar with high levels for 5 out of 6 intermediate determinants of well-being, in a generalized picture of blissfulness.

Knowing how profiles or subtypes of blissful individuals vary, may help one plan their strategies accordingly. For example, in absence of a good financial situation, one could invest in family or religiosity to achieve more happiness.

These different profiles for the most miserable and the most blissful, as well as those observed for the whole sample, are not evenly distributed among the population according to other socio-demographic characteristics. Certain factors are associated with the distributions of the profiles amongst specific population groups. Next section sheds light on this issue.

6 – Factors associated with the distribution of profiles in Brazil

This section investigates which socio-demographic aspects are associated with the distribution of individuals among the different profiles described above. Individuals with some specific characteristics might be overrepresented in a particular profile. For instance, profile 2 for blissful individuals might be a typical one for low-income older individuals with strong social and religious ties.

In the next paragraphs, we analyze the whole sample, the most miserable and the most blissful individuals separately. The profiles presented in tables 4, 5 and 6 have a clear nominal nature. Given this property, we used multinomial models in order to investigate the external factors that might be correlated with the distribution of individuals among the profiles. As previously stated, based on the class this individual had the highest probability of membership, we assigned one class to each individual in the sample.

In order to conduct this analysis, we selected some explanatory variables that may influence this distribution. The selected variables are: sex (1 – Male, 0 –Female), race/ethnicity (1 – White, 0 – Non-white), age (six age groups as in table 2), income (eight categories as in table 2), town population (as in table 2) and region of residence (as in table 2). Moreover, while discussing the most miserable and most blissful, we used the variables marital status (1 – Married, 0 –otherwise) and employment status (1 – Unemployed, 0 – Employed), which were left out of the composition of the latent class for subtypes.

Table 7, 8 and 9 present the results for the econometric models for the whole sample, most miserable and most blissful respectively. Notice that the sample sizes for these two last groups are small, and therefore we do not draw conclusions, but make suggestions. Also because of small sample sizes, most coefficients in tables 8 and 9 were non-significant, and simpler models were included in the analysis.

Table 7 presents the results for the multinomial models analyzing the external factors that might influence the distribution of all individuals in the sample among the profiles. There are two groups of comparisons: the first has as reference profile 1; and the second has as reference profile 3. This dual choice for reference is because both profiles presented much larger latent class membership probabilities than the others.

The first comparison is between profiles 1 and 3. Notice that the upper panel compares profile 3 with 1. In the lower panel, the comparisons and the coefficients signs are reversed. Therefore, we discuss only the results in the upper panel. We address the following question: which factors might influence the probability of an individual of being included in the *healthy group* profile when compared to the religious financially poor individual's profile?

Besides the intercept, there are five variables with significant coefficients. Individuals with age between 35 and 44, and between 45 and 54, when compared to the age reference of 65 and over had a greater propensity of being characterized by the healthy profile than the financially poor one. The same occurred for those who had higher income, and for those who lived in towns with population between 20 to 100 thousand inhabitants having as reference inhabitants of large urban centers. In part, this last result may be caused by lower living costs and lower financial expectations in towns.

The second comparison is between the profiles 4 and 1, contrasting *financially rich non-unemployed individualistic* individuals with *religious financially poor* individuals. The results show four trends. The first one is for age. Younger persons had a greater propensity of being in the second group, indicating worst financial situation, higher unemployment rates, and more religiosity in this population group. Individuals who had greater income and lived in São Paulo tended to be included, with greater propensity in the first group, probably mostly due to their financial situation. After controlling for all variables in the model, inhabitants of smaller towns had a greater propensity of being included in the financially rich, non-unemployed individualistic profile than those who lived in large urban centers.

The comparison between profiles 4 and 3 in the lower panel contrasting *financially rich non-unemployed individualistic individuals* with *healthy individuals* might clarify some of these results. As in the previous comparison, younger persons had a greater propensity of being characterized by the second group, indicating better health levels in this population group. Also as before, inhabitants

from SP and towns tended to be included with greater propensity by the first profile, indicating the robustness of the results. However, contrary to the observed in the comparison between profiles 4 and 1, in this comparison between profiles 4 and 3, the coefficient for income is negative, suggesting that income translates into health more than into good financial situation.

The next comparisons are between profiles 5 and 1, and between profiles 6 and 1 (between the *blissful* and the *miserable* profiles with *Financially poor but religiously rich* individuals). The discussion is done conjointly for these two comparisons, as it facilitates the conclusions. First, income matters: the positive coefficient in the comparison between profiles 5 and 1, and the negative coefficient for the other comparison indicate that the larger the income the greater the propensity of being in the blissful profile and the smaller the propensity to be in the miserable one. Interestingly, the coefficients for race/ethnicity, and for the age group of 25 to 34 are all negative. This suggests that white individuals, when compared to non-whites, and adults when compared to the oldest age group, had a greater propensity of being in the middle of the distribution of well-being, with less propensity of being blissful or miserable. Place of residence also seems to matter. Individuals who lived in the North/Northeast, MG/ES and RJ had a smaller propensity of being in the miserable group, while those who lived in the Central-West and in SP had a smaller propensity of being in the blissful profile (having the South region as reference). Town size also showed some significant coefficients. Apparently, towns with population between 20 and 50 are less prone to have miserable inhabitants, when compared to the general population, while towns with population between 50 and 100 show greater propensity of promoting blissfulness, again when comparing with the whole sample.

Notice that the comparison between profiles 6 and 3 is very similar to the comparison between 6 and 1. That is, changes in the reference for the non-miserable and non-blissful profile when comparing with the most miserable do not modify much the results.

However, the comparisons between profiles 5 and 1, and 5 and 3 show some differences. The positive coefficient for income in the first comparison indicated that the larger the income, the greater the propensity of being in the blissful profile. However, in the comparison between profiles 6 and 3, the coefficient was negative, indicating that the propensity of being healthy is greater than being blissful with an increase in income.

The last comparison showed in the upper panel of Table 7 is between profiles 2, the one for *lonely moderate miserable* individuals, and profile 1, of the *religious financially poor* individuals. Only one coefficient was significant, the one for MG/ES. Inhabitants in these states showed less propensity of being in the first group. The comparison between profiles 2 and 3, the one for *healthy individuals* in the lower panel showed a negative sign for income, again suggesting the association of income with health level.

Table 7 – Multinomial models for general comparisons

Comparison with profile 1 as reference					
Variables	2	3	4	5	6
Intercept	-1.75**	-1.39**	-3.08**	-1.76**	0.71
Male	0.15	0.17	0.48	0.04	-0.11
White	-0.12	0.06	-0.46	-0.42*	-1.01**
15 to 24	-0.22	-0.43	-1.48**	-0.51	-0.60
25 to 34	0.03	-0.45	-1.78**	-0.96**	-0.93*
35 to 44	-0.47	-0.46*	-1.10**	-0.53	-0.74
45 to 54	-0.94	-0.74**	-1.88**	-0.48	-0.49
55 to 64	0.65	-0.29	-0.88	0.07	-0.37
65 and over	Ref.	Ref.	Ref.	Ref.	Ref.
Income	0.04	0.34**	0.14*	0.23**	-0.22**
North/Northeast	-0.26	0.02	0.50	-0.14	-0.82*
Central-West	-0.87	-0.24	-0.32	-1.36**	-0.68
MG/ES	-1.03**	-0.25	0.40	-0.25	-0.98**
RJ	-0.20	-0.28	0.11	-0.60	-1.34**
SP	0.20	-0.21	1.21*	-0.83**	-0.30
South	Ref.	Ref.	Ref.	Ref.	Ref.
< 20	0.09	0.39	0.74	0.42	-0.69
20 - 50	0.21	0.57**	0.99*	0.44	-0.81*
50 to 100	-0.22	0.40*	0.99*	0.65*	-0.27
100 to 500	-0.27	-0.10	0.98**	0.21	-0.42
> 500	Ref.	Ref.	Ref.	Ref.	Ref.
Comparison with profile 3 as reference					
Variables	1	2	4	5	6
Intercept	1.39**	-0.36	-1.68*	-0.37	2.11**
Male	-0.17	-0.02	0.31	-0.13	-0.29
White	-0.06	-0.18	-0.52	-0.48**	-1.07**
15 to 24	0.43	0.21	-1.05**	-0.08	-0.17
25 to 34	0.45	0.48	-1.33**	-0.50	-0.48
35 to 44	0.46*	-0.01	-0.64	-0.06	-0.27
45 to 54	0.74**	-0.19	-1.14*	0.26	0.25
55 to 64	0.29	0.94*	-0.59	0.36	-0.08
65 and over	Ref.	Ref.	Ref.	Ref.	Ref.
Income	-0.34**	-0.30**	-0.20**	-0.10*	-0.56**
North/Northeast	-0.02	-0.29	0.48	-0.16	-0.84*
Central-West	0.24	-0.63	-0.08	-1.12*	-0.44
MG/ES	0.25	-0.78	0.65	0.00	-0.73
RJ	0.28	0.08	0.38	-0.33	-1.06*
SP	0.21	0.41	1.42**	-0.63*	-0.09
South	Ref.	Ref.	Ref.	Ref.	Ref.
< 20	-0.39*	-0.30	0.36	0.03	-1.07**
20 - 50	-0.57**	-0.36	0.42	-0.13	-1.38**
50 to 100	-0.40*	-0.62	0.59	0.25	-0.67
100 to 500	0.10	-0.17	1.08**	0.31	-0.32
> 500	Ref.	Ref.	Ref.	Ref.	Ref.

Source: WVS, 2006.
Note: * $p < 0.10$, ** $p < 0.05$.

The next two tables present the results for the most miserable and the most blissful. The first profile is the reference for both analyses, as they had the largest latent class membership probability.. Due to small samples, there are different models in each table, each with a different set of explanatory variables.

We present first the results for the most miserable. Model 1 includes the variables related to sex, race/ethnicity and age. Only one variable was significant when comparing profiles 1 and 2, while all others were non-significant. Individuals with age between 15 and 24 showed a smaller propensity to be in profile 2. Actually, if we take the exponential of the coefficient, young persons had a propensity more than five times greater to be in profile 1, with lower values for financial situation and better levels for health, while having higher levels of social variables, such as religiosity, thick trust and importance given to family.

The comparison between the first and third subtypes also showed only one significant coefficient, the positive one for males. This result indicate that men showed a propensity more than two times larger to be in profile 3: lower levels of importance given to family, religiosity and thick trust, although with a better financial situation.

Model 2 includes the variables for married, unemployed and income. All coefficients were non-significant. Notice that income is non-significant even for distinct levels for financial situations observed in profiles 1, 2 and 3. Previously, we observed that married and employed individuals tend to have higher levels of well-being, but among those already miserable, differences amongst profiles of misery are non-significant.

Model 3 includes the regional variables with only one significant coefficient for each comparison, both for region of residence. Individuals in Rio de Janeiro had a propensity 3.5 times larger to be in profile 2 when compared to profile 1. The main differences are that the first show lower levels of health, lower levels of thick trust and higher levels of financial situation. Can these findings be related to greater proportions of older individuals, and higher overall income levels observed in Rio?

Model 4 includes all the explanatory variables. The comparison between profiles 2 and 1 showed two significant coefficients in this more controlled analysis, which were for the Rio de Janeiro and São Paulo states. Individuals who lived in these states, which are among the richest in Brazil, had a much greater propensity to be in the *unhealthy distrustful miserable individuals* profile than in the *financially poor miserable* profile.

The comparison between profiles 3 and 1 in model 3 showed one significant coefficient, which was for the North/Northeast region. Inhabitants of these regions had greater propensity of being in profile 3, with less importance given to family, less religiosity, less thick trust and better financial situation. Are these findings related to model 1? Sex ratios tend to be higher in rural areas and regions with high recent net migration.

This same comparison in model 4 showed only one significant coefficient, which was for men. Men show a greater propensity to be in the *solitude miserable individuals* profile than to be *financially poor miserable* profile.

Table 8 – Multinomial models for the most miserable

Variables	Model 1		Model 2		Model 3		Model 4	
	2	3	2	3	2	3	2	3
Intercept	-0.58	-1.23	-0.50	-0.96	-1.09	-1.74	-0.94	-1.44
Male	0.54	0.88*	-	-	-	-	0.45	0.98*
White	0.40	0.12	-	-	-	-	0.57	0.02
15 to 24	-1.71*	0.10	-	-	-	-	-1.48	-0.68
25 to 34	-0.75	-0.44	-	-	-	-	-0.62	-1.10
35 to 44	-0.36	-0.45	-	-	-	-	-0.30	-1.00
45 to 54	-1.23	-0.56	-	-	-	-	0.07	-0.28
55 to 64	0.03	0.74	-	-	-	-	0.70	0.16
65 and over	Ref.	Ref.	-	-	-	-	Ref.	Ref.
Married	-	-	-0.11	-0.61	-	-	-0.51	-0.93
Unemployed	-	-	-0.54	-0.27	-	-	-0.94	-0.32
Income	-	-	-0.07	0.07	-	-	-0.06	0.03
SP	-	-	-	-	1.11	0.10	2.06**	0.44
North/Northeast	-	-	-	-	0.81	1.56*	1.07	1.49
MG/ES	-	-	-	-	0.30	0.72	-0.04	0.71
RJ	-	-	-	-	1.25*	0.99	1.66**	1.23
South	-	-	-	-	Ref.	Ref.	Ref.	Ref.
< 20	-	-	-	-	-1.05	-0.76	-1.03	-0.57
20 - 50	-	-	-	-	-1.20	0.84	-1.21	0.83
50 to 100	-	-	-	-	-1.57	-0.58	-1.20	-0.22
100 to 500	-	-	-	-	-0.45	0.59	-0.65	0.75
> 500	-	-	-	-	Ref.	Ref.	Ref.	Ref.
Goodness of fit	98.3		94.9		81.2			

Source: WVVS, 2006.

Note: * p < 0.10, **p < 0.05.

Table 9 presents the results for the models 1 and 4 for the most blissful. Models 2 and 3 did not show any significant differences from model 4. Notice that due to problems with sample size, the first comparisons in models 1 and 2 differ from others, as some variables were dropped from the analysis. Again, most coefficients were non-significant.

In model 1, besides the intercept, only the coefficient for the age group 45 to 54 was significant for the comparison between profiles 1 and 2. Individuals of this age group (and probably those in the age group from 55 to 64) tended to have a greater propensity to be included in profile 2. If we take the exponential of the coefficient, these persons had a propensity more than five times greater to be in profile 2, with lower levels of financial situation and of health, but higher of self-determination. That is, individuals aged 45 to 54 tended to have greater propensity to be a *blissful self-determined unhealthy* and *financially poor* individual than a *healthy blissful* individual.

The comparisons between profiles 4 and 1, and 3 and 1 did not show any significant coefficient in model 1. Notice that profiles 1 and 3 are quite similar, what may partially explain this lack of significance. However, profiles 1 and 4 show many remarkable differences, and all the coefficients were also non-significant.

In model 4, no coefficients for comparisons 4 and 1 were significant. The comparison between profiles 1 and 2 shows three significant coefficients. Those who had lower income showed a greater propensity to be in profile 2, with a lower value for self-declared financial situation, what was expected at some extent. Those unemployed had a greater propensity to be included in profile 1. Although this do not seem reasonable given the higher values for financial situation in profile 1, considering the results of model 1, a great proportion of individuals characterized by profile 2 might be retired because they are older, and therefore they are not unemployed.

Moreover, the comparison between profiles 2 and 1 showed another significant coefficient for the North/Northeast regions. The results of this and the other models suggest that the *unhealthy financially poor blissful* individuals have a greater propensity of being in the age groups between 45 and 64, low income, not unemployed and in the North/Northeast regions. Might they be retirees, possibly highly determined return migrants?

Table 9 – Multinomial models for the most blissful

Variables	Model 1			Model 4		
	2	3	4	2	3	4
Intercept	-1.57**	0.48	1.10	0.13	-1.10	-0.44
Male	-0.24	-0.23	0.11	0.12	-0.63	-0.28
White	-0.52	-0.46	0.04	-0.18	-0.42	0.05
15 to 24	-	-0.51	0.33	-	-0.98	0.70
25 to 34	0.29	-0.17	0.10	0.40	-0.35	0.34
35 to 44	0.71	-0.50	0.23	0.53	-1.00	0.26
45 to 54	1.37*	-0.20	0.20	1.13	-0.24	0.01
55 to 64	1.34	-0.74	0.57	1.23	-0.81	0.73
65 and over	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Married	-	-	-	-0.17	-0.23	-0.50
Unemployed	-	-	-	-2.15*	0.08	-0.62
Income	-	-	-	-0.45**	0.11	-0.03
SP	-	-	-	1.04	0.48	-0.10
Central-West	-	-	-	-	1.79	1.36
North/Northeast	-	-	-	1.87**	1.02	-0.69
MG/ES	-	-	-	0.45	0.24	-0.98
RJ	-	-	-	-	1.40*	-0.39
South	-	-	-	Ref.	Ref.	Ref.
< 20	-	-	-	-1.28	0.02	-0.89
20 - 50	-	-	-	-0.19	1.67**	0.10
50 to 100	-	-	-	-1.83	1.39**	0.97
100 to 500	-	-	-	-1.36	0.84	-0.36
> 500	-	-	-	Ref.	Ref.	Ref.
Goodness of fit	150,3					

Source: WVS, 2006.

Note: * p < 0.10, **p < 0.05.

The comparison between profiles 3 and 1 showed three significant coefficients besides the intercept. Individuals in Rio de Janeiro (RJ), and in towns with population between 20 to 100 thousands had a greater propensity of being in profile 3. For small towns, the conclusion is straightforward: individuals who lived in town with population between 20 to 100 thousand inhabitants tended to have higher levels of importance given to the family, self-determination and religiosity, and lower values for financial situation when compared to individuals who live in large cities. For RJ, the same occurs when compared to the South region.

7 – Concluding remarks

The points discussed so far are all related to individuals, and the individualistic pursue for happiness. The discussion might focus on group of individuals or specific localities. For instance, some places and some communities are more successful than others promoting happiness and satisfaction with life. Why do some of them thrive, while others fail? Buettner (2010) describes some of these places and draws some conclusions that can again highlight the discussion presented here.

The author entitled Denmark as the world's happiness all-stars. The author enumerated some factors associated with this high level of well-being. First, the Danish are trustful and tolerant. We verified that trust, and especially thick trust, is among the most important determinants of happiness and satisfaction with life. How are we faring in Brazil? Indeed, we are performing extremely poor in this aspect, as trust levels in Brazil are extremely low.

Following the author, the Danish seek status and economic equality. Brazil is known as one of the most unequal societies, and richness is broadly desired. Unequal societies tend to depress the feeling of subjectively evaluate financial situation, one of the most decisive among the determinants of happiness.

The Danish care for the young and old people in Denmark. In Brazil, we have one of the most generous pension systems in the world in terms of breath, but the value of the pension might not be enough to dissolve social inequalities at later ages. Moreover, although we do have schools for the great majority of the population, the quality of education is low, and to be a schoolteacher is a rather low status job in most settings. The consequences of this low investment in human capital on well-being are pervasive. As incomes are low, we end up with lower levels of health, higher underemployment rates and higher rates of turnover for marriages.

Another example of happy place described by Buttner (2010) is Singapore, which is an extremely secure place, a feature highly valued by its inhabitants. Moreover, in this country, the society is efficient, orderly, well-educated and courteous. The basic needs of every citizen is covered by the state, with educational policies that encourage self-improvement, and social policies that boost work, while addressing poverty with a “workfare” instead of a welfare. Similarly as in Denmark, status equality is valued and there is a built environment for trust. In Brazil, reality is rather different; however, some of the citizen's needs have been better covered by the state than in the recent past. Future waves of the WVS might be able to pick up the improvements of the last decade.

Mexico is also described by the author as a happy place, despite serious problems, such as children malnutrition, lack of education, underemployment, high levels of corruption and questionable governments. Which lessons can we learn from this country? First, following Buettner (2010), part of the Mexican happiness is due to the sun bonus and nurturing laugh, which can be reasonably easy to find in Brazil. Moreover, he describes many other points associated with an increase in well-being, such as a personal sense of freedom, religiosity, intense social interactions and an elevated level of importance given to family, many of those also present in Brazil.

Laynard (2005) utters that human beings are very adaptive, and happiness depends on inner life as much as on outer circumstances. As we described, some dimensions of life are more strongly associated with well-being than income, such as being healthier, married, employed, religious, trustful, linked to family, and enjoying greater freedom and control over life. These topics should be the focus of society's development. In this vein, as demonstrated by Frey (2008), happiness research has become a useful tool to design public policies in order to increase social welfare that, in the end of the day, is what matters.

References

- Amato, P., Landale, N., Havasevich-Brooks, T., Booth, A., Eggebeen, D., Schoen, R. and Mchale, S. (2008) Precursors of young women's family formation pathways. *Journal of marriage and family* 70, p. 1271-1286.
- Blanchflower, D. and Oswald, A. (2004) Well-being over time in Britain and the USA. *Journal of Public Economics* 88.
- Buettner, D. (2010) *Thrive: Finding Happiness the Blue Zones Way*. National Geographic Society, Washington, USA.
- Cavalcanti, T., Guimarães, J. and Nogueira, J. (2009) Is Brazil the land of happiness? A comparative study using a sample with economics students from UFPE and Purdue. *Brazilian Review of Econometrics* 29 (1).
- Corbi, R. e Menezes-Filho, N. (2006) Os determinantes da felicidade no Brasil. *Revista de Economia Política* 26 (4).
- Frey, B. (2008) *Happiness – A revolution in Economics*. CES, The MIT press, Cambridge, USA.
- Golgher, A. (2014a) An introduction to the determinants of happiness in Brazil. Working paper at Cedeplar/UFMG (forthcoming).
- _____ (2014b) The influence of attitudes and beliefs on the determinants of happiness in Brazil. Working paper at Cedeplar/UFMG (forthcoming).
- _____ (2014c) An overview of the determinants of happiness in Brazil in 2006. Working paper at Cedeplar/UFMG (forthcoming).
- Hair, J., Black, W., Babin, B., Anderson, R. and Tathan, R. (2009) *Análise multivariada de dados* (6th Edition), Porto Alegre: Bookman.
- Kahneman, D., Krueger, A., Schkade, D., Schwarz, N. and Stone, A. (2006) Would you be happier if you were richer? A focusing illusion. *Science* 312, 1908.
- Layard, R. (2005) *Happiness – Lessons from a New Science*. Penguin Books, NY, USA.
- Manton, K. and Vertrees, J. (1984) The use of Grade of membership analysis to evaluate and modify diagnosis-related groups. *Medical care* 22 (12), p. 1067-1082.
- Manzoni, A. (2014) Conceptualization and measuring of youth independence: a multidimensional approach, mimeo.
- Pearce, L. and Denton, M. (2011) *A Faith of Their Own: Stability and Change in the Religiosity of America's Adolescents*. New York: Oxford University Press

Putnam, R. (2000) *Bowling alone*. Simon & Schuster paperbacks: New York.

Slutzer, A. and Frey, B. (2006) Does marriage make happy, or do happy people get married? *Journal of Socio-economics* 35: 326-347.

Yang Y. (2008) Social Inequalities in Happiness in the United States, 1972 to 2004: an age-period-cohort analysis. *American Sociological Review* 73.