

Original Paper

Well-Being in Alpine Space: How Subjective Determinants
Affect Urban and Rural Areas. A Case Study Analysis in South
Tyrol, Italy

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Received: August 20, 2018 Accepted: October 19, 2018 Online Published: October 30, 2018

doi:10.22158/uspa.v1n2p301 URL: <http://dx.doi.org/10.22158/uspa.v1n2p301>

Abstract

The paper analyzes urban-rural difference on the individual psychological well-being of residents living in the Autonomous Province of Alto Adige, region on the border between Italy and Austria. Data comes from a cross-sectional survey undertaken in 2010 on a statistical representative sample, based on the PGWBI, an instrument specifically used to measure individual subjective well-being. The study examines the influence of socio-demographic factors, as well as cultural determinants, on the PGWBI. Urban inhabitants were found to perceive higher level of psychological well-being compared to rural ones, while the determinants affecting individual subjective had a greater impact on the rural one.

Keywords

urban-rural, psychological general well-being index, life satisfaction, alpine space, well-being determinants

1. Introduction

In the last 50 years, the rural exodus toward urban and metropolitan areas has mirrored the worldwide trend concerning urbanization. As mentioned in several studies and reports (United Nation, 2014), the percentage of those living in an urban context rose to over 50% of the worldwide population, a percentage that reached almost 75% within the EU borders.

The reason behind the growing interest in relocating to urban spaces is related to a wide range of direct influences and positive externalities affecting individual development generated by these urban areas in comparison to rural ones. According to the literature on agglomeration economies, cities and urban

areas are linked to benefits such as higher productivity and wages, more learning opportunities and exchanges, higher rates of innovation and creativity, more public services or other aspects that might positively influence individuals' development. If on the one hand cities have become a major attractor for human development, on the other these dynamics also have negative counterparts connected with different features such as increased city size, higher costs of living, higher environmental costs (pollution or congestion) and potential social conflicts. All these elements are threatening individuals' development and play a role in choosing a place to live and work.

Starting from the 80s, a large number of contributions concentrated on the perception of the individual quality of life within urban and rural contexts. If we focus on the most economically developed countries, specifically in Europe, the quality of life has been increasing over the time when people have moved from rural to urban areas, this when considering both subjective and objective well-being data. Lower levels of opportunities in terms of, for example, access to public services can explain the gap between rural and urban in favor of urban areas. Furthermore, rural areas show inferior individual income, fewer employment opportunities, a lower level of education and critical transport compared to urban ones. If, at first sight, it can be observed that conurbations provide greater advantages in relation to human development, the size of these (villages, town, cities and metropolises) matters in relation to life satisfaction, particularly in those realms not related to objective indicators such as education or income, but to subjective ones, such as individual estimation of the perceived quality of life and environment where they live. Towns and villages appear to be more prone to supplying relational networks and collaboration between residents than cities; a community feeling and a stronger social cohesion in these contexts leads toward a positive perception of individual well-being. Moreover, another aspect that might positively affect individual well-being is proximity to the natural environment, which is more frequent in small cities, town and rural areas in comparison with large cities and metropolitan areas. It is widely reported that living close to a natural space and using it for leisure activities promotes a greater contribution to both physical and psychological individual well-being. Additional elements appear to be determinant, for example the cultural supply, participation in voluntary and community activities, which may prompt the activation of biological effects in individuals and thus foster individual well-being.

The article aims to investigate the difference in individual psychological well-being provided by living in rural and urban contexts in a specific geographical area, the Autonomous Province of Bolzano, located on the border between Italy and Austria, in the heart of the Alpine region. In addition, the area is characterized by a specific multilingual socio-economic ecosystem, thus also presenting a high level of public services and welfare/cultural provision in comparison to the national context and noted by ISTAT—Italian National Statistical Bureau, which may affect the individual subjective perception of well-being.

To this end, a cross-sectional survey was undertaken in the autumn of 2010 on a statistically representative sample (750 polled) of residents living in both urban and rural areas in Italy. The survey

was modeled on the PGWBI (Psychological General Well-Being Index), an instrument targeted specifically at measuring individual subjective well-being, used for the evaluation of the impact of different subjective well-being determinants. The questionnaire collected a sample of the main socio-demographic characteristics such as gender, age, education, income, diseases, employment, and civil status, which are listed as major objective well-being determinants in well-being literature. Furthermore, information concerning other possible determinants related to the subjective dimension, such as social and community involvement, cultural and leisure participation, and sports activities have been collected in order to provide a greater comprehensive understanding of the influence of the different determinants on individual subjective well-being in relation to the size scale (urban vs. rural). For a correct geographical allocation of the physical residency of all interviewees, records also collected the address, and by applying the aforementioned methodology, it was possible to analyze the different factors influencing individual well-being, and also to establish a possible measurement scale. Literature has shown that there is a need for empirical evidence regarding rural vs. urban differences in the well-being realm, and in this perspective our study may supply an innovative contribution at a methodological level whilst also providing possible indications concerning the main determinants affecting individual subjective well-being in the Alpine region.

The article is structured as follows: section 2 presents a literature review and thus the theoretical approach to the study, section 3 describes the methodology and data source, section 4 provides results, section 5 offers the evaluation and discussion, drawing some conclusions.

2. Theoretical Background

The relationship between individual living conditions and well-being has been investigated extensively over the last 20 years with the aim of carrying out evaluations concerning the impact of different elements on individuals. Starting from the classic socio-economic factors such as income, education and job, studies have tried to assess the weight of several other factors such as environmental and social characteristics, as well as social relationships, participation in culture, practicing sport and many others. The methodologies employed in order to measure the individual well-being have been varied in terms, ranging from the theoretical approach concerning the quality and quantity of data and variables that may be recorded, to data collection, evaluation techniques and instruments.

As reported by Ballas (2013), it is possible to distinguish between two different main approaches to the measurement of well-being:

- Subjective well-being measurement, which assesses, through surveys, perceptions and the emotional state of individuals and the correlation to elements in the external environment;
- Objective well-being, which refers to observable variables, e.g., environment quality, income and the welfare system, correlated to socio-demographic data.

The objective approach has been employed quite extensively in relation to the evaluation of urban or spatial categories, for example the influence of green spaces (Carrus et al., 2015), urban density (Guite

et al., 2006), commuting (Sirgy, 2016) and housing (Clapham, 2010) on the well-being of individuals, relying on observed well-being. In the last decade scholars' interest in the subjective approach has grown, owing to the weight provided by individual emotional state, perceptions and feeling in relation to the external environment where individuals work and live (Topp et al., 2015).

Focusing the attention on the possible differences in terms of subjective well-being perception in relation to urban vs. rural areas, regional and urban studies have scrutinized extensive literature on the relationship between well-being and the urbanization level of places where individuals live. Different disciplines have been involved, from urban sociology (Van Kamp et al., 2003), economics (Kahnemann & Krueger, 2006), medicine (Lee et al., 2011) and spatial planning (Pacione, 2003), and most of them have supplied similar results: urban areas might provide higher opportunities in the individual well-being realm, in relation to the greater economic and work opportunities, both in quantitative (number and variety of job opportunities) and qualitative (individual income) terms, but also given the access to educational and welfare service, household and so on. It has also been reported that rural areas generally show contrasting characteristics, such as less educational and welfare services, lower economic and work opportunities, presenting a weak agglomeration economy effect which may affect the individual well-being perception (Requena, 2015). But as reported in several studies (Migheli, 2016), rural inhabitants do not perceive a lower well-being or quality of life level in comparison to urban dwellers. The reason may be ascribed to the higher social opportunities provided in rural areas, such as a strong relational framework and interpersonal communication, if compared to more densely populated zones such as urban areas, which are affected by social stress and loneliness, mental illness, a higher crime rate and green space deprivation (Gielsing et al., 2017).

The literature review shows three different patterns: a. studies that found a positive correlation between urban contexts, rather than rural ones, and individual well-being (Glaeser et al., 2016); b. studies that found a positive correlation between rural contexts, rather than urban ones, and individual well-being (Sørensen, 2014); c. studies that shows little or no differences between the two areas (Rodriguez-Pose & Maslauskaitė, 2012). Given the previous elements, researchers have tried to highlight the rural urban differences on individual well-being and also the possible impact of geomorphological spatial variation, such as mountain/Alpine areas on individual subjective well-being (Plaut et al., 2002; Ives, 2004).

Our study aims to explore which affect individual well-being in urban and rural areas located in the Alpine region (mountain area), and in this respect try to highlight how classical socio-economic determinants such as age, gender, education and income affect subjective well-being. In addition, some novel elements such as community and cultural involvement, and sport practices have been scrutinized in order to provide a more comprehensive picture concerning the well-being perception of rural and urban dwellers.

3. The Measurement of Individual Subjective Well-Being: Case Study, Data and Methods

Given the premises presented in the previous section, we have collected preliminary evidence on the potential urban-rural differences on individual psychological well-being based on an Alpine scale, namely the Autonomous Province of Bolzano/Bozen.

3.1 Case Study

The Autonomous Province of Bolzano/Bozen is situated in the geographical center of the Alpine space, an administrative zone positioned at the border between Italy and Austria. The whole Autonomous Province displays interesting socio-demographic characteristics. There are 499,000 inhabitants in the Autonomous Province (ISTAT data from the Italian Bureau of Statistics, 2010) and at a social level, the area is characterized by the presence of three languages and culture (Italian, German, and Ladino) as well as by the autonomy that is granted at both governmental and institutional levels for the management of the educational, cultural and welfare dimensions. At an economic level, the Bolzano/Bozen Province shows a higher level of GDP and income per capita and a lower unemployment rate in comparison to the whole national level (Istat, 2011). Furthermore, the city of Bolzano/Bozen, the most important urban area in the Autonomous Province with 100,000 inhabitants, ranks at the top of the 110 most important Italian cities owing to the following conditions: Standard of living; Business and employment; Environment and health system; Public order and criminality; Population; Leisure time.

3.2 Data

A statistically representative sample ($N = 750$) of the Autonomous Province of Bolzano/Bozen population has been surveyed by Doxa, an Italian pollster company, using telephone interviews, according to the Computer-Aided Telephone Interview (CATI) system. The cross-sectional survey was undertaken in autumn 2010 and collected the main socio-demographic characteristics such as gender, age, education, income, diseases, employment and civil status. Moreover, another source of possible well-being determinant as noted in the literature potentially linked to the PGWBI—Psychological General Well-Being Index (Note 1)—were collected: fifteen cultural variables covering participation in cultural activities grouped in the Cultural Indicator (CI); community and volunteering activities; sport practices. The aforementioned elements were recorded on a scale from 1 to 364, thus in relation to the intensity of participation in a year measurement scale. We also collected the influence of the health status on individual well-being, given the strong relation between this element and subjective well-being perception (see for example, Grossi et al., 2012). In this respect fifteen possible variables (e.g., pathologies, illnesses) have been recorded in a dichotomic fashion.

Concerning the repartition of the interviewees in the two geographical classes, urban-rural, two specific questions were asked: a. concerning the perception of the place of residence from two different variables (rural, urban); b. to record and check the zip code of each interview in order to estimate the residency location and thus classify them in the correct folder (urban-rural) in relation to the

administrative borders as registered in the last Istat Census (2011). For the present study the zip code method was adopted as a cut off between urban and rural dwellers.

3.3 Methods

Data analyses was undertaken using two different techniques:

- a. a linear approach that refers to univariate analyses carried out in order to chart the weight of the different variables in relation to the two areas;
- b. a nonlinear approach referring to the employment of supervised artificial neural network—Auto-CM. Auto-CM is a method that is able to highlight the most important links between the variables in order to depict connecting patterns among these and detect those acting as “hubs”. Auto-CM is a special kind of Artificial Neural Network that, through specific data mining and a learning algorithm, is able to find consistent patterns and/or systematic relationships, and hidden trends and associations, among variables. After the training phase, the weights developed by Auto-CM are proportional to the strength of association of all variables with each other. The weights are transformed into physical distances. Variable couples whose connection weights are higher become nearer and vice versa. A simple mathematical filter represented by a minimum spanning tree is applied to the distances matrix and a graph is generated. This matrix of connections preserves non-linear associations among variables and captures connection schemes among clusters. As a final result a semantic connectivity map was created, using a mathematical approach based on an artificial adaptive system called Auto Contractive Map-Auto-CM algorithm (Buscema & Grossi, 2008).

Table 1 presented in the Appendix section shows the variables included in the evaluation. Table 1 provides the total sample characteristics compared to what has been recorded in the last national survey (Istat, 2011).

Table 1. Sample Characteristics

	Bolzano/Bozen N	Bolzano/Bozen %	Bolzano/Bozen Istat %
Gender			
Male	357	47,6	47,7
Female	393	52,4	52,3
Age groups			
15-17	30	4,0	4,0
18-34	193	25,7	25,7
35-54	275	36,7	36,7
55+	252		
Degree			
Primary/Junior School	433	57,8	57,8

High School	235	31,3	31,3
College	82	10,9	10,9

4. Result

4.1 Linear Approach-Univariate Analyses

Table 2 shows the descriptive statistics concerning the two groups, urban and rural, as well as how they behave in relation to the PGWBI level. In this respect the average value registered for the urban sample is 81.63, and 76.492 for the rural one. Both samples show an average that is above the national one, as reported from previous analysis (Grossi et al., 2012), which is 76,41.

Table 2. Descriptive Statistics. Variables Reporting * Show a Difference Statistically Significant (Urban n. = 579; Rural n. = 76)

Variables	Urban area			Rural		
	Mean	Standard Deviation	IC (95.0%)	Mean	Standard Deviation	IC (95.0%)
<i>Cultural index</i>	114,934	122,422	9,91	84,43	116,74	28,93
<i>High cultural index</i>	37%	48%	4%	31%	47%	12%
<i>Low cultural index</i>	63%	48%	4%	69%	47%	12%
<i>Number diseases*</i>	2,209	1,377	0,11	2,71	1,62	0,40
<i>0-1 disease</i>	40%	49%	4%	31%	47%	12%
<i>2 diseases</i>	26%	44%	4%	20%	40%	10%
<i>3 or more diseases</i>	33%	47%	4%	49%	50%	12%
<i>Age</i>	50,048	16,714	1,35	52,06	18,08	4,48
<i>Age < 50 years</i>	49%	50%	4%	37%	49%	12%
<i>Age > 50 years</i>	51%	50%	4%	63%	49%	12%
<i>Primary school</i>	5%	22%	2%	17%	38%	9%
<i>Secondary school</i>	26%	44%	4%	46%	50%	12%
<i>High school</i>	52%	50%	4%	35%	48%	12%
<i>University*</i>	17%	38%	3%	2%	12%	3%
<i>Low income*</i>	6%	24%	2%	12%	33%	8%
<i>Average income</i>	39%	49%	4%	38%	49%	12%
<i>High income*</i>	25%	43%	3%	12%	33%	8%
<i>Income no information</i>	30%	46%	4%	37%	49%	12%
<i>Male</i>	42%	49%	4%	55%	50%	12%
<i>Female</i>	58%	49%	4%	45%	50%	12%

<i>Unemployed</i>	2%	12%	1%	0%	0%	0%
<i>Retired</i>	32%	47%	4%	40%	49%	12%
<i>Blue collar*</i>	16%	36%	3%	28%	45%	11%
<i>White collar*</i>	43%	50%	4%	23%	42%	11%
<i>Student</i>	8%	27%	2%	9%	29%	7%
<i>Positive wellbeing</i>	42%	49%	4%	31%	47%	12%
<i>PGWBI*</i>	81,31	16,53	1,338	76,492	19,552	4,84
<i>Distress</i>	26%	44%	4%	32%	47%	12%
<i>No distress</i>	32%	47%	4%	37%	49%	12%

The first step was to estimate the correlation between the different variables in relation to the PGWBI determinants on a size-based scale. In this perspective, the evaluation was done by means of a comparison between the two groups; the sample was divided as described previously. Table 3 shows the result of the evaluation concerning the urban-rural dimensions.

Table 3. Linear Correlation—Pearson—between Each Independent Variable and on Size-Base Scale (*Statistically Significant Variables)

Variables	Rural	Urban
Cultural index	0,072	0,039
High cultural index	0,061	0,039
Low cultural index	-0,061	-0,039
Number diseases	-0,335	-0,128
0-1 disease	0,350	0,098
2 disease	-0,083	-0,003
3 or more disease	-0,256	-0,099
Age	-0,099	0,012
Age < 50	0,043	0,025
Age > 50	-0,043	-0,025
Schooling	0,090	-0,012
Primary school	-0,034	-0,021
Secondary school	-0,149	-0,003
High school	0,204	0,048
University	-0,083	-0,048
Low income	-0,250	-0,027
Average income	0,090	-0,067
High income	0,156	0,075

Income no information	-0,027	0,014
Male	0,196	0,096
Female	-0,196	-0,096
Unemployed		0,061
Retired	0,000	0,027
Blue_collar	-0,040	0,009
White_collar	-0,049	-0,054
Student	0,133	0,013

Figures from 1 to 2 show the variance recorded in the two areas concerning the weight of each element in relation to individual psychological well-being.

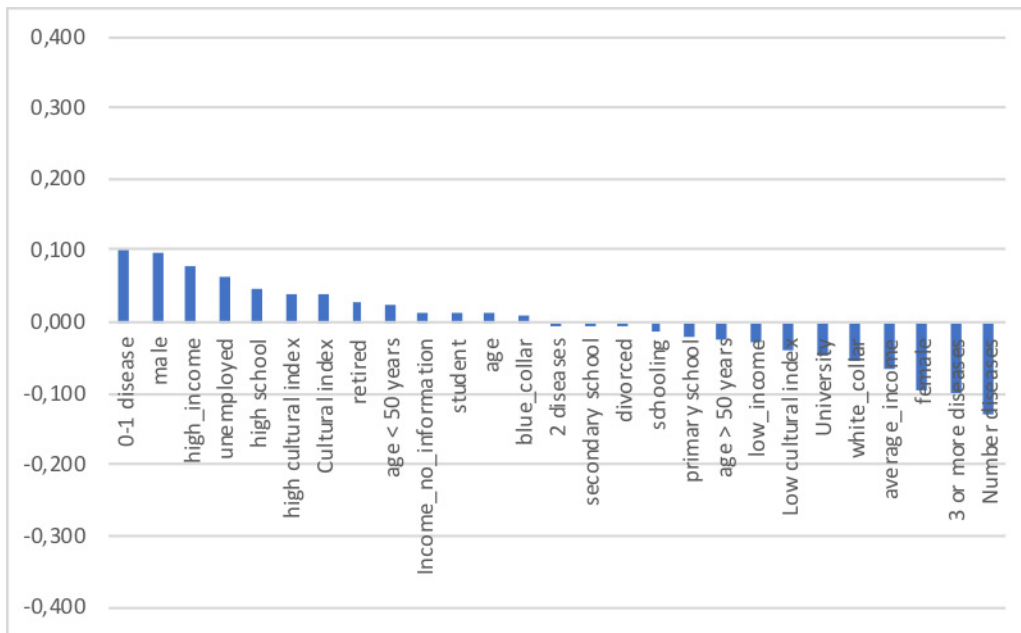


Figure 1. Urban

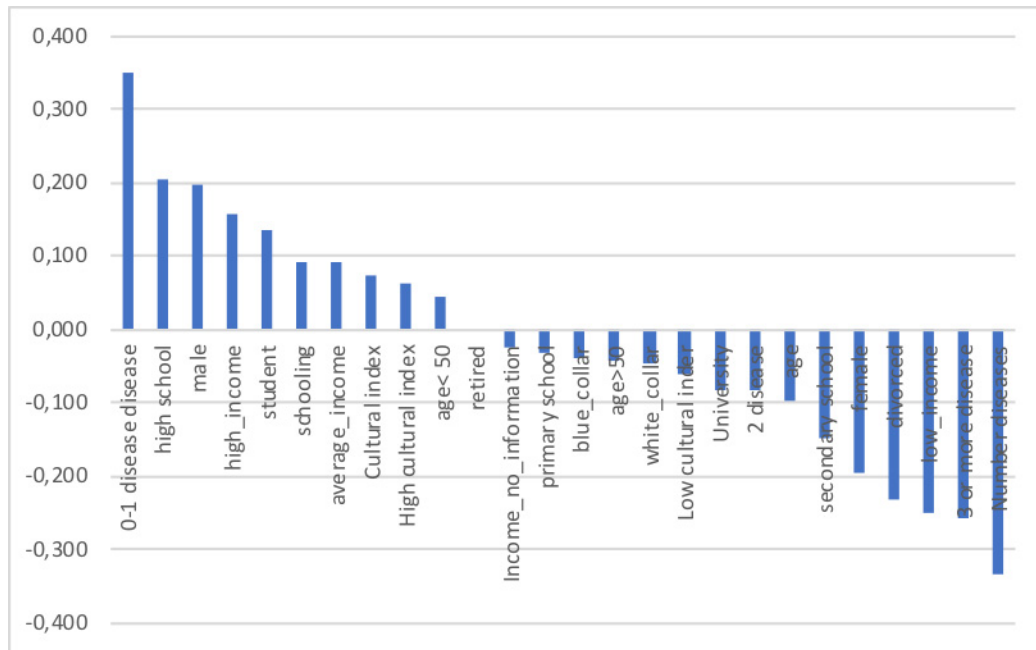


Figure 2. Rural

Starting from a general point of view, it is possible to observe that elements scrutinized as possible determinants in the two areas have a different impact on PGWBI. The urban sample shows a narrow difference between elements that have the most affect (0-1 diseases, gender—male, high income), and those that have the least affect PGWBI (3 or more diseases, gender—female, average income) in comparison to the same features of the rural sample, which present a higher difference between elements that affect individual subjective well-being positively or negatively. The reasons for this may be different, from the spatial proximity between urban dwellers to services and leisure/cultural activities to more infrastructure and connectivity to other areas within and outside the Autonomous Province of Bolzano/Bozen. Thanks to the data collected it is not possible to provide a clear and exhaustive answer to it, other than there are elements that have not yet been surveyed which supply a higher impact on an urban area in comparison to a rural one.

If we turn our attention to all specific well-being determinants, starting with the cultural dimension, the two areas behave in the same way. The overall cultural consumption is positively correlated to the individual subjective well-being, but there is an important difference between those with a high or and low cultural participation. In order to estimate the influence of this element, which as noted by several authors (Tov & Diener, 2009) may be considered a driving element for subjective well-being, we subdivided the sample in two groups: high cultural index, with the individual participating in more than 90 cultural events/year, and low cultural index, with the individual participating in less than 90 cultural events/year. The cut off was created following the research of Bygreen et al. (2000), which noted a positive correlation between individual life expectancy and cultural consumption starting from 90 cultural events/year. Both areas provided the same results: a high cultural index, and thus those that

may be considered cultural omnivores, is positively correlated to PGWB both in urban and rural areas, whilst the opposite is true for low cultural index.

As reported in several studies (e.g., Chida et al., 2008) diseases greatly affect individual well-being perception. In our study we observed a clear relation between the presence of diseases and subjective well-being where comorbidity is the element that produces the most negative impact on individual psychological health, while having good health conditions (0-1 diseases) became the prior condition for a positive subjective well-being in comparison with other factors on study. However, the negative impact of having three or more diseases and the positive impact of a healthy condition is much more marked in a rural setting, with a correlation coefficient higher than -0.3 and +0.3 respectively in comparison with an urban setting, where the value is around -0.1 and +0.1. This difference can be interpreted considering the geomorphology of the Autonomous Province of Bolzano/Bozen, where most of the health services and infrastructures such as hospitals are located in the urban areas, quite far in spatial terms from the rural areas that are mostly collocated in valleys and thus with low access to welfare provisions. In this context it is reasonable to expect that a comparable amount of co-morbidity may determine different effects on psychological well-being.

The gender issue is another element that is noted in literature as an element that supplies important evidence in relation to the well-being perception. Our findings reflect what has been noted in literature (Van de Velde, 2010), and this evidence is common to the two urban and rural samples. Being male is associated with a positive effect on individual well-being, while being female promotes a negative effect on subjective well-being perception.

In relation to age, the samples were subdivided in 4 sub groups: those with age < 50 (urban and rural) and those with age > 50 (urban and rural). We can observe that the variable age has a narrow effect on individual subjective well-being, and once again the same element can be recognized for both dimensions, urban and rural.

Income will be one of the most influential elements in relation to individual health and psychological conditions, and in this respect, it is has been widely reported in literature as one of the most relevant factors (Blanchflower & Oswald, 2004). It is also well known that the relation between the positive externalities generated by income decrease over time, a sort of paradox that Easterlin highlighted in his research (Easterlin, 2001). Studies have also underlined that urban areas provide greater opportunities for the individual average income in comparison to rural ones (Chu-Liang, 2009) and how this element may therefore lead to an increasing perceived quality of life and well-being for those living in urban areas rather than rural ones. In both samples high-income ranks as a positive element in relation to positive well-being, and it is possible to recognize a difference in the incidence of low income between the two groups. If in urban areas this element has an almost null effect, in the rural sample the impact of low income is much more intense.

Education and employment are two elements that may reserve interesting prospects in relation to individual subjective well-being. Studies reported that education could be considered as a possible

leverage in order to increase individual capabilities, such as the enlargement of individual abilities and knowledge, fundamental element for the individual quality of life both in the professional (work) and personal (relations with others) dimensions (Frey & Stutzer, 2010). Data from the two samples show that the high school diploma is an element that supply positive influence on subjective well-being in both areas. On the contrary, a lower educational level such as primary or no education reflects a possible negative impact on individual well-being. Being a graduate at university level, with either a BA or MA, seems to provide a null or negative effect on psychological health. This may be considered a counterintuitive effect if compared with the relevant literature in the field (see e.g., Michalos, 2017), but in relation to the area in question it is not surprising. Data from National Census (Istat, 2011) shows that the Autonomous Province of Bolzano/Bozen has a percentage of the population that holds a university degree that is below the national level, in particular in rural areas. The reason for this might be ascribed to the geographical distance from higher educational institutions, located in the main cities (Bolzano, Merano, Bressanone), but also to the peculiar socio-economic model based on small family business and activities, mostly related to the agricultural and service (tourism) sectors, where activities are handed down to generations. For the aforementioned reasons, it is possible to observe an almost null unemployment rate (and no data for our research), and also a low individual attitude toward investment in high educational service, as reported from the survey sample.

Regarding the previous point, the individual employment position does not seem to be a relevant individual well-being determinant in comparison to the main literature (Bardasi et al., 2004). Being white collar—jobs related to offices, self-entrepreneurs, managers and in general jobs that require mental rather than physical resources -or blue collar-, e.g., workers, artisans, farmers, and in general jobs which imply a higher percentage of physical resources rather than mental ones as in the previous example—are both positions which present a null or very low negative influence on well-being. Both areas show that being a student and retired have a positive influence on well-being. A reason for this result can be seen in several opportunities in terms of services (e.g., public transport subscription, health and social assistance, cultural and leisure occasions) which are directly or indirectly supplied by the Autonomous Province of Bolzano/Bozen, which owing to its almost administrative and economic sovereignty in relation to the national government, enhance an efficient and wide range of benefits for the two aforementioned categories.

The complexity of the relationship between the possible socio, economic and environmental variables that may influence individual psychological well-being, makes the linear statistic inefficient in determining the possible causality and/or the relation between these elements and PGWB. In order to understand better this dimension, and to depict a possible picture concerning the relational grade between subjective well-being and the factors under investigation, a more sophisticated statistical technique has been adopted, which refers to the artificial neural network, called Auto-CM. Auto-CM is a method that provides the opportunity to underline the relation between elements recorded and the individual psychological level (Buscema & Grossi, 2008).

4.2 Non Linear Approach—Artificial Neural Network

Results from the Auto-CM analysis are presented in Figure 3 for an urban area, Figure 4 for a rural one.

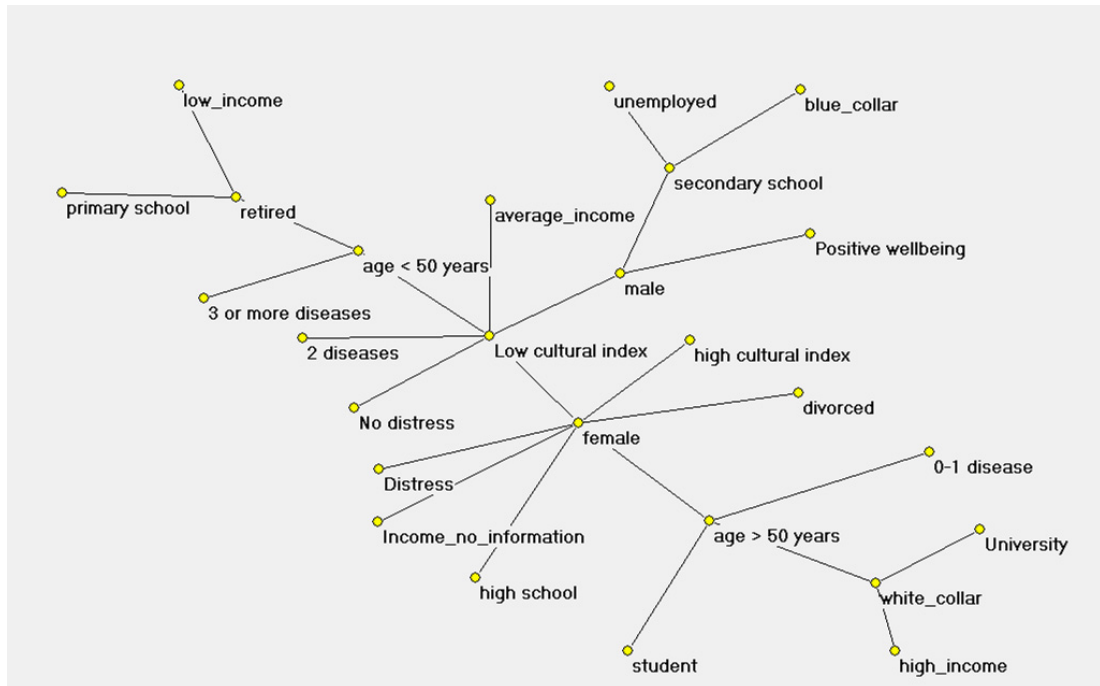


Figure 3. Semantic Connectivity Map Urban Area

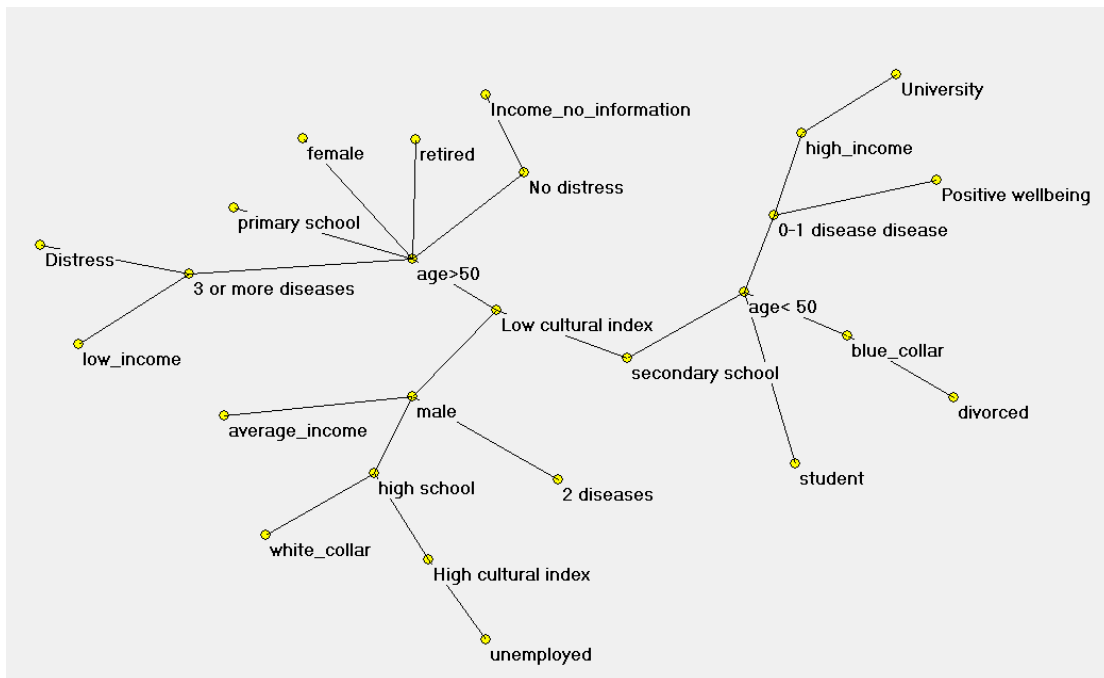


Figure 4. Semantic Connectivity Map Rural Area

The semantic maps present some interesting indications regarding the possible link between the two main hubs, positive well-being and distress, and possible determinants.

In the urban case, it shows that well-being is clearly connected to determinants such as being male, secondary school, and low cultural index. In relation to the analysis of the distress determinant in the same urban environment, the map shows that distress appears to be closer to being female, divorced, a high cultural index and education (high school). The second map offers a perspective about elements affecting both individual psychological status within rural environment, and thanks to it, how these exert an influence on positive or negative well-being. Starting with positive well-being in rural area it is related to null or 1 disease, high income, age < 50, while elements that influence individual psychological distress are low income and educational level (primary), a comorbidity in relation to diseases (3 or more), NS age < 50.

These results corroborate the main findings from the literature review but are not completely consistent. The linear and non-linear statistical techniques that were adopted show that the difference in terms of impact as highlighted by the determinants in the survey are quite small, and the incidence curve appears quite flat; this is particularly the case in the urban environment where it seems that other factors that were not registered in the present study may act toward increasing opportunities in terms of positive subjective well-being.

5. Discussion

While this study does not demonstrate that higher level of individual subjective well-being is correlated to a specific environment, it shows that there are different variables that affect it, and that some of them are positively correlated with well-being perception. The review of the quantitative evidence has shown that higher positive influence on individual subjective well-being is more owing to urban determinants than to rural ones. But these results cannot be considered consistent, given the relatively low difference in urban well-being determinants in comparison to rural ones, which do not rely on effective results. On the contrary, the greater differences in terms of impact provided by the elements in the rural sample reflect what has emerged in the main literature reviews, in particular in relation to the possible portrait of the characteristics of individuals incorporating psychological well-being or distress, for both gender classes, male and female.

In relation to the gender characteristics within the urban environment, it is possible to observe that these two samples also reflect what is reported in literature, but with an interesting counter-intuitive effect in relation to the male class and two specific well-being determinants, educational level and cultural participation. At a general level, the male urban sample shows a lower level of disease, high income, low educational profile and cultural consumption than female, who shows higher levels in both dimensions. This reflects what is noted in the literature review, but in relation to male well-being determinants, as reported thanks to the literature review, a low educational and cultural level may challenge the psychological individual condition, given the possible constraints in, e.g., finding a job or

income level. In our study this effect is not registered; on the contrary, the male sample shows quite a high well-being level. Why? The solution to this question may be ascribed to the socio-economic, environmental and institutional condition of the Autonomous Province of Bolzano/Bozen. The statistical data from the Autonomous Province of Bolzano statistical bureau (see ASTAT, 2011) indicate that males may also enter the economic and work environment with a low educational degree, an element which reflects the peculiar economic condition of the area characterized by the interaction of a very generous (in terms of funds and programs for the employment and firms) and self-sufficient (in terms of economic balance) public sector, in addition to familiar oriented and managed economic activities. The peculiar economic ecosystem does therefore not challenge the individual in investing toward the acquisition of better skills and abilities in order to reach employment and wage conditions, in other words to achieve higher educational grade as for the university one.

In the case of females, as reported in several studies, these generally show a high educational and cultural consumption level in comparison to males, but suffer from a recorded lack of self-esteem, which affects their well-being perception. Once again, the opportunities located in the area allow females to achieve greater opportunities in the work and private dimensions, which lead to a better well-being positioning rather than is reported at a national level.

6. Conclusions

The growing pressures affecting human development in most urbanized areas, such as environmental criticalities, social migration, economic crisis and globalization, suggest that there has never been a time like the current era in which public and private strategies in relation to individual quality of life, the condition and possible determinants generating increasing or decreasing opportunities of human development, have become a fundamental tool in order to establish action aiming to achieve growing opportunities in terms of individual physical and psychological well-being. This argument cannot only be ascribed to conurbation but is also fundamental in order to achieve new opportunities in less anthropic areas as well, such as rural environments, particularly in mountain areas, in which the quality of the environment, owing to its natural dimension, is closer to the quality of service, infrastructures and socio-economic opportunities existing in the area. As reported in several studies (Mc Gregor et al., 2009), the lack of these opportunities is reflected in the quality of life and well-being perception of individuals and groups located in alpine spaces, and there are several results where this effect has been documented: the abandonment of the rural spaces and migration of the population to more infrastructure areas, the urban ones, the emersion of several criticalities from the decreasing government and maintenance of the natural environment, the decline of economic and social (educational, welfare) opportunities, a vicious circle which may lead to the complete abandonment of these specific areas, which are fundamental for the ecosystem equilibrium between the more urbanized spaces as well as for the lowland and the mountain ones.

A strategic goal for both urban and rural areas may be directed at enhancing individual and collective viability and welfare both in a short and long-term perspective, where local public and private infrastructures and services related to possible individual and well-being empowerment may adapt and supply innovative solutions to accommodate the demands of better conditions for physical and psychological individual health.

In this article, we have supplied a comparative analysis of urban and rural dimension in the Autonomous Province of Bolzano/Bozen, located in the core of the Alpine space in Italy. The rationale behind this study is that the individual psychological well-being in urban and rural Alpine areas will be influenced by different possible determinants, and in this respect, more precisely those that provide a positive or negative impact on this specific human dimension. What it is interesting to note, analyzing in detail the weight of the determinants recorded thanks to this survey, is the behavior of the urban sample in relation to the subjective psychological distress. In this specific realm, it is possible to observe that the characteristics affecting psychological well-being as reported in literature are also those marking the urban sample. But in our case, those that also present the coexisting presence of these elements, shows quite an interesting PGWB, close to those perceiving a positive well-being state. What seems to play an important role in supplying livable conditions and thus well-being for the Autonomous Province of Bolzano/Bozen inhabitants seems the possibility of expenditure, service and infrastructures provided at a local public government and institutional level, rather than single activities or individual characteristics, an interesting indication which may challenge similar geo-morphological areas in investing for specific policy in order to maximize the return of the economic and welfare investment in the individual well-being sphere as well.

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Note

Note 1. The Psychological General Well-Being Index (PGWBI) has been validated by decades of clinical practice. PGWBI was developed as a tool to measure the self-representations of intra-personal affective or emotional states reflecting a sense of subjective well-being or distress, and thus captures what we could call a subjective perception of well-being. The original PGWBI consists of 22 self-administered items, rated on a 6-point scale, which assess the psychological and general well-being of respondents in six HRQoL domains: anxiety, depressed mood, positive well-being, self-control, general health and vitality. Each item has six possible scores (from 0 to 5), referring to the last four weeks of the subject's lifetime. Each domain is defined by a minimum of 3 to a maximum of 5 items. The scores for all domains can be summarized in a global summary score, which reaches a theoretical maximum of 110 points, representing the best achievable level of well-being: a sort of "state of bliss". In this paper, we have adopted the short form of PGWBI, consisting of six items that generally explain more than 92% of the global variance of the questionnaire. This short version has been validated in a long-term project carried out from 2000 to 2006 in Italy (see Grossi et al., 2006). A detailed presentation of the sampling method with the dependent and independent variables collected is provided in Grossi et al. (2011).