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Labour Status and Subjective Well-being

A Micro-level Analysis and a Multidimensional Approach to Well-being

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Labour Status and Subjective Well-being. A Micro-level Analysis and a Multidimensional Approach to Well-being.

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Abstract: The principles of Decent work presently inspire the struggle against poverty, and the promotion of an equitable, inclusive and sustainable development (UN-SDGs, 2015). They lie on three main levels: universal rights, job quality, and subjective well-being in relation to work. Macro and micro social conditions influence the relationships between work and subjective well-being. This paper focuses on the relationships between labour status and subjective well-being, analysing data from the European Union Statistics on Income and Living Conditions 2013, with respect to the Italian dataset. It assumes the multidimensionality of well-being as a premise, and explores the distribution of cases according to three main dimensions of subjective well-being.

RELATIONSHIPS BETWEEN WORK CONDITIONS AND SUBJECTIVE WELL-BEING

Work has a central role in the determination of quality of life although relationships between individuals and their job change according to different conditions and contexts. For many people, paid work is a guarantee of livelihood, an opportunity to be autonomous, to affirm their own role, identity and dignity (Nussbaum, 2011) and to become valued actors in society.

Work allows self-realization; it supports inclusion of more vulnerable people, such as those suffering from mental illness, even if it may represent a threat to the mental health of workers in stressful working conditions (WHO, 2010).

The Declaration of Philadelphia (ILO, 1944) ratifies that workers have the right to pursue, thorough work, "their spiritual development" as well as "their material well-being because they are able to "make their greatest contribution to the common wellbeing" (Art.3, b).

The workplace is in itself an important site of socialization. Sharing a common work experience, feeds trust in a community and forges a relevant part of social identity (Dubar, 2000).

For these reasons, unemployment may have effects that go beyond the economic disease, affecting psychological well-being and social behaviour.

Article 23 of the Universal Declaration of Human Rights (1948) ratified the right to work, defining the framework of *Decent work* principles. In 1999 the International Labour Organization (ILO) adopted the Decent Work Agenda, which rests on four pillars: employment creation, social protection, rights at work, and social dialogue. The reference model of decent work is the "standard" job, which corresponds to a stable job, lasting for the whole working life, a professional or technically specialized competence and an educational and training coherent course.

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If we assume a global vision, we have to instead recognize the absolute prevalence of "non-standard" working conditions (ILO, 2015, 2017). In developing and least developed countries, high inequality in work conditions is largely the standard, with a high proportion of vulnerable and poor workers. In most developed countries, on the other hand, the spread of many different forms of self-employment, conceal a subordination pillaged of every elementary right, or a form of precarious work without rules and social protection. Due to high unemployment rates and precarious job security, younger generations do not see many opportunities for a stable income and professional development. Within a context of fragmented functions, and highly specialised training, competence becomes rapidly obsolete. Professional identity becomes weaker, because career paths lose their clarity, and the connections of workers with their colleagues deteriorate. These conditions affect the solidity and serenity of workers and aspiring workers (Gallino, 2011).

The domain of subjective well-being in relation to work, therefore, concerns the relationships of people (workers and non-workers) with work. The European Working Condition Surveys (Eurofound) study job quality at organisational level. The VI edition (2016) dedicated a part of the questionnaire to the subjective well-being of workers. It applied the World Health Organization's Well-Being Index (WHO-5), which assesses: 'positive mood' (good spirits and relaxation), 'vitality' (being active and waking up fresh and rested) as well as 'general interest' (being interested in things).

Eurostat (2015), within the framework of Life Conditions studies, analysed the relationship between labour status and subjective well-being. The analysis is founded on the *ad-hoc* module on Subjective well-being of the European Union Statistics on Income and Living Conditions (EU-SILC). To assess subjective well-being, Eurostat adopted the three dimensions, recognized by literature, as the most significant: cognitive, affective and eudaimonic (OECD, 2013).

A MULTIDIMENSIONAL PERSPECTIVE

The present work assumes the multidimensionality of well-being as a premise. This assumption is founded on decades of studies on quality of life.

Commencing from the 1970s, scholars developed measures of Life satisfaction that are now widely recognized. They have adopted the most frequently asked questions about the satisfaction for life as a whole, based on assessment scales, usually of seven or eleven values. The basis of Life Satisfaction assessment is the comparison between an individual's past conditions, their ambitions and their performance in contrast to other people. (Michalos, 1980 and ss.). Satisfaction of life as a whole is commonly considered the synthesis of the entire domain of satisfaction.

Emotional status concerns affects, which can be positive (trust, joy, happiness) or negative (worry, fear). In the well-being evaluation, most of the tools come from health measurements scales, such as the SF-36 questionnaire or the previously mentioned WHO-5. Subjects declare their affects or emotions which they have felt in the recent past. Usually questions on emotional status refers to the last 4 weeks. Studies demonstrated that, in the short term, positive and negative affects lay on a logical continuum, while in the long term, they may result as independent dimensions (Diener, 1984).

The third relevant dimension of well-being is *Eudaimonia*. The word refers to the concept used by Aristotle. Even if translated as happiness, it does not belong to the hedonic related terms as underlined by Waterman in 1993. In 2001, Ryan and Deci, the

founders of the Self-determination theory, introduced the terminoloy eudaimonic well-being (Waterman, 2008). It denotes a sense of purpose, corresponding to a good psychological functionality that goes beyond conscious evaluation or emotional feeling; it mostly regards self-realization, termed *flourishing* (Diener, 2009, Huppert, 2013). It appears as a satisfactory integration with the surrounding world. Functional autonomy consists of competence, interest to learn, goal orientation, resilience, social commitment, caring and altruism (Huppert et al., 2009). The relationships between working conditions and subjective well-being appear conceptually connected with this last dimension. Research reveals eudaimonia observing behaviour or habits, collecting narratives, though it may also require individual subjective evaluation, adopting attitude scales, or registering opinions.

Guidelines on Measuring Subjective Well-being (OECD, 2013) recognize the relevance of the above-mentioned three dimensions, suggesting that the choice of indicator must represent the multidimensionality of concepts. Each dimension refers to non-elementary concepts. For this reasons, attention focuses on interrelation, rather than on causality. The patterns of analysis have to respect this multidimensionality, and the choice of data processing methods has to conserve the informative potential of subjective indicators. (Maggino, 2015)

Furthermore, "well-being attributes are naturally expressed on ordinal scales, ruling out any consistent way to manipulate them using classical statistical analysis" (Fattore et al., 2015). Even approaches that transform qualitative modality in binary variables entail a relevant loss of information, especially with regard to the ordinal dimensions of each characteristic, and to the conjunct contribution to the object of interest.

THE EUROSTAT ANALYSIS OF THE EU-SILC AD-HOC MODULE ON SUBJECTIVE WELL-BEING.

The European Union Statistics on Income and Living Conditions is a sample statistical survey, which EU Member States have conducted since 2004, taken according to EC Regulation n.1177/2003. It allows cross-sectional and longitudinal comparison within and between countries. The 2013 edition included an *ad-hoc* module on subjective well-being[2] in the questionnaire.

The module consists of 22 subjective items: nine questions on satisfaction (0-11 scale); one question on meaning of life (0-11); five questions on emotional status (a five-step scale); four questions on trust (0-11); two questions on personal relationships (binary variables); one question on physical security perception (a five-step scale).

Eurostat presented results of this survey in three different reports, comparing National data from more than one angle.

The first issue was the module assessment. In this report, there is considerable information about response rate, item correlations, and some differences in wording between national surveys. This has been useful in the analysis of the Italian data.

In many countries, there has been a high non-response rate for well-being questions because proxy answers were not allowed. Italy gains one of the highest rates (33.1%) of non-respondents, closely followed by Malta, Ireland and Croatia. In all countries, females participated more than males, and the younger class had the highest fall in response rate. Unlike most of countries, Italy's fall in response rate was higher between unemployed than full-time employed.

[2] Commission Regulation (EU) No 62/2012

The report presents the correlation between 20 items of the module (i.e. excluding the two bivariate items), adopting Pearson's coefficient. The interpretation of the correlation allows for the comment that there are relationships between most of the items, but the coefficients are not so high as to indicate a redundancy of them.

The second report (Eurostat, 2015, ch.9) analyses results, focusing on Quality of Life and on Life Satisfaction in particular. It defined, in premise, the conceptual and operative dimensions of well-being adopted in the survey and in the analysis. The report explained, for example, that in the module the item 'Meaning of Life', covers the eudaimonic dimension of subjective well-being. It considers Meaning of Life as a "multi-faceted construct" that has been conceptualised in diverse ways, referring broadly to the value and purpose of life, important life goals, and for some, spirituality. In the emotional sphere, the report considers only the question of happiness.

At the European level, it results that "Unemployed and inactive people were on average the least satisfied (5.8) compared with full-time employed (7.4)" (ibidem, p. 238). The relationship between labour status and happiness confirms "unemployment has not only negative consequences for life satisfaction and meaning of life, but also severe impacts on happiness. 22.6 % of the unemployed said that they were happy little or none of the time" (ibidem, p.259).

The report compares Meaning of Life solely with Life Satisfaction average values. Meaning of Life is slightly higher in every country.

An important fact emerges in this report: even if at the aggregate level the three dimensions of Subjective well-being are strongly related, at the individual level "a considerable proportion (7.1 %) of those 'being happy all of the time' reported low levels of life satisfaction" (ibidem).

The third Eurostat report applied a multivariate regression model on EU-SILC data, in order to "quantify the significance of several determinants of life satisfaction"(Eurostat, 2016, p.8). It proposed three models: the first included socio-economic variables; the second added domain variables, for example, trust and self-perceived health status; the third implied SF-36 mental well-being. In this way, emotional status is considered one of the determinants of quality of life and not a dimension of Subjective well-being. Analysis produces some results in this sense. It does not consider the recommendations concerning multidimensionality.

Eurostat's analysis are very relevant in comparing national aggregate data. Nevertheless, as affirmed in the second report, the micro-data level may raise other questions that may lead to other research perspectives. Secondly, according to specific knowledge needs of each issue, those analyses chose to consider Life Satisfaction as the main dimension of subjective well-being, and to neglect the others or to consider them only in relationship with satisfaction for life.

The present study applied micro-data analysis to the Italian dataset. The research question addresses toward two main issues.

The first concerns the common assumption of the relationship between *labour status* and subjective well-being: we want to explore micro-data to detail some characteristics of this relationship. What more can we learn from this specific data analysis?

The second focuses is on the issue of multidimensionality. How can we analyse the relationship between a socio-economic variable (labour status in this case) and subjective well-being while respecting the three-dimensionality of the concept of well-being?

MICRO-DATA MEASURES, AND METHODS

Micro-data analysis required a sequence of actions to make data usable. Some interventions transformed, calculated or redefined variables. Here are, in synthesis, the various steps taken in this knowledge iterative path, though not necessarily in chronological order.

1) From the variable year of birth we calculated the age, and then aggregated respondents by Age class (AgeC), in seven classes of ten years, starting from 16 years old, that is the minimum age to fall within the sample.

2) The original variable "Self-defined current economic status" became "Self defined labour status" (SDLS) in the present report. We prefer to use the term labour status because economic conditions may be misleading: it evokes instead the availability of goods or money. In the Italian questionnaire, the denomination is *condizione professionale*. Condition represents a term closer to job quality domain, than to employment status of respondents. Even Eurostat, in the second quoted publication, used Labour status.

3) Many of the variables considered are ordinal scales. The order was not always consistent with the concept of well-being. For some variables (such as happiness or serenity), it has been necessary to invert the order of the answers. In this way all the answers corresponding to the most desirable condition have the highest number code.

4) To allow some tests on the relationships between variables, we have chosen to exclude those cases that answer "Do not know" (code 9 or 99) to the SWB questions. As the purpose of the present study is not to apply any statistical inference to results, those choices are licit.

5) However, the most delicate choice concerned the processing of the five items revealing emotional status. In fact, it was relatively unclear as to whether it was correct to simply assemble together the five items related to emotions. These items compose the mental health trait in the SF-36 Questionnaire. The SF-36 measures Quality of Life (relating to health conditions) across eight domains, physically and emotionally based. To calculate the mental health score, the methodology indicates summing the scores of the five items (Ware et al. P. 6:12). In the Eurostat report on SWB, the so called "Mental well-being" index is instead computed by averaging the five-scale scores, recoding them into a range 0-100 (Eurostat, 2016). Moreover, on defining SPANE (Scale of Positive and Negative experiences), Diener and colleagues (2009) also presented the construction of a balanced score (SPANE-B), calculated by the differences between Positive and Negative feelings. We may see that scholars nowadays accept the possibility to aggregate in a sole measure values from different items revealing emotions. Referring to those precedents, we calculated a value called Emotional Status (ES). We decided to minimize intervention on data, so we calculated the average value between items, based on a five-step scale with codes from 1 to 5, and carried the results into a five-step scale, applying the approximation of the values.

6) We created two five-step aggregations of Life Satisfaction (LS) and Meaning of Life (MOL), because dimension reduction was necessary to apply data processing. For the same reason, we aggregated the variable of Educational Attainment in five levels.

Once the main variables had been defined, we conducted a descriptive analysis of the respondents (and non-respondents). The pivotal variables are: sex, age, labour status, and educational level (see Appendix A, Table 1). In Italy, just 66.9% of the whole

sample answered some of the Subjective Well-being (SWB) questions; this consists of just over 25,000 of the recorded responses.

Within the subset of these 25,000 respondents, we chose to study only individuals between 26 and 65 years of age (15,281). Younger respondents are, in fact, underrepresented in the subset (a non-respondent share of 72.7% for under 26); they are also naturally over-represented among the "in education" group. On the other hand, over 65 respondents are mostly outside the ordinary working age (at least in 2013). We chose to exclude those cases that presented invalid responses in one of the three dimensions of SWB. All results presented here refer to this subset, even if substantial information can be derived from previous analysis on the whole sample.

We divided the subset into 20 types according to Sex and SDLS. We considered Sex as a discriminant variable, even if, in bi-variate analysis, it seems less significant. We believe, in fact, that the intersection between SDLS and Sex has an influence on SWB.

RESULTS CONCERNING RELATIONSHIPS BETWEEN LABOUR STATUS AND SUBJECTIVE WELL-BEING

The subsequent step consisted of confronting our data with some of the Eurostat results. We calculated the Pearson correlation coefficients within the main well-being variables. As we considered the Tau-b coefficient more adequate for categorical and ordinal variables, we also calculated it, introducing the ES variable to compare coherence with the affects items. Correlation values between the five emotional items and the calculated ES are significant (Table 1).

Table 1. - Correlation between Emotions' items and calculated Emotional status

Kendall's Tau-b	Nervous	Down in the dumps	Depressed	Peaceful	Happy
Emotional status	.686**	.684**	.726**	.689**	.636**

** Correlation is significant at the 0.01 level (2-tailed). Sig. 0.000. Number of records 15,281

We applied a bivariate analysis between AgeC, SDLS, Educational Attainment and the three dimensions of SWB represented by LS, ES and MOL. Educational Attainment and Well-being variables are in the five-step aggregation. Even if SDLS is a categorical variable, we ordered the modalities, following the hypothesis that people that have a more stable job have a higher level of SWB. The Chi square test allows for the rejection of the null hypothesis (Table 1).

Table 2. Relationships between Labour status, Age class, Educational attainment and Subjective well-being dimensions (ordinal five steps scale)– Pearson Chi Square test

Socio-economical character	Life satisfaction			Meaning of life			Emotional status		
	Chi Sq	df	sig	Chi Sq	df	sig	Chi Sq	df	sig
Self defined labour status	996.137	32	0.000	647.914	32	0.000	644.812	32	0.000
Age class	70.51	12	0.000	87.39	12	0.000	109.50	12	0.000
Educational attainment	653.888	16	0.000	513.168	16	0.000	391.34	16	0.000

Even if the relationship between age and SWB is conceptually valid, and also widely accepted, it seems less evident within the age range considered here (26-65).

With regard to the correlation between SDLS, Educational attainment and SWB dimensions, the non-parametric coefficient Tau b results are small (see Appendix A, Table 2). Nevertheless graphic representations show evident differences in the distribution of assessment values according to Labour status. These results are similar to those that emerged in the Eurostat analysis.

The following figure shows four charts comparing the distribution of well-being dimensions assessment values between Unemployed and Full-time Employed, according to sex.

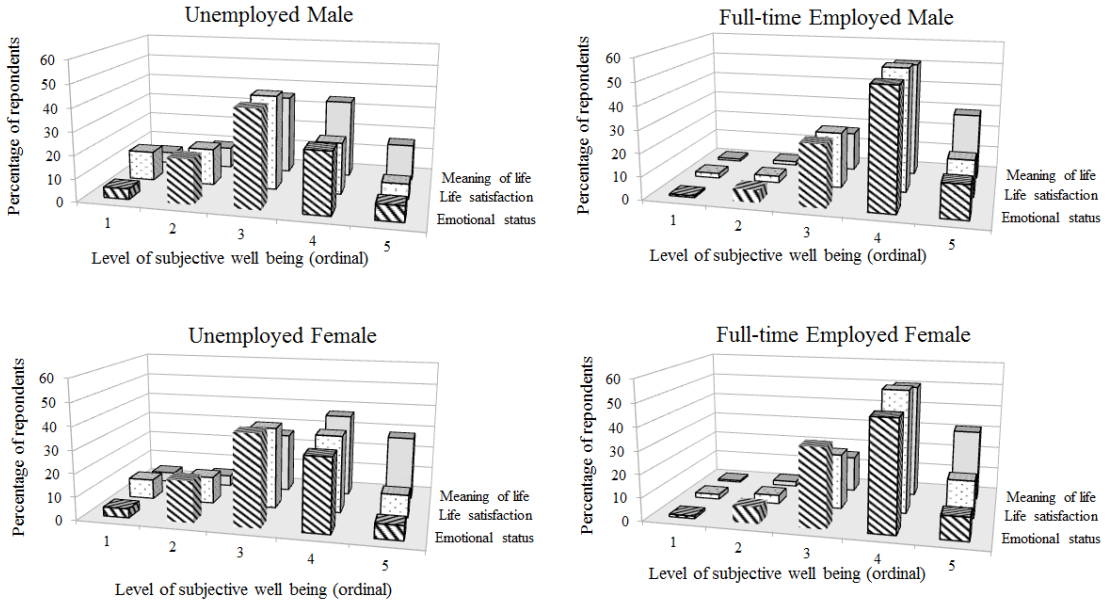

Figure 1 – Levels of subjective well-being (ordinal five steps scale) for Unemployed and Full-time employed, by sex

The charts also highlight the differences in the distribution of assessment according to the three dimensions of well-being (the distribution of the whole subset is in Appendix A, Table 3). MOL is always higher, and it seems less influenced by labour conditions, even if it is depleted among male unemployed.

This analysis confirms general results, but it is also able to say something more. At the aggregate level, we can, in fact, relate general economic and social conditions with general subjective well-being within a country or between countries. At the individual level, we can reveal how being involved in a specific condition may be associated to a particular level of well-being. We can also observe which level of well-being is most affected by a specific disadvantage.

For example, Meaning of Life for women is lower in the unemployed, but differences are less evident when compared to that of men.

The stronger association of the unemployment condition seems to be with Emotional Status. Similar results concern people Self-employed in part-time (less than 30 hours per week), that present a lower level of SWB, in respect to, for example, retired people. In particular, they register a worse level of Emotional Status. We can hypothesize that many flexible workers suffer from current lack of job security, while retired people have a stable condition, even if not as satisfying.

As we observed, each dimension of SWB has a different relationship with SDLS. To compare the different distributions, we propose a chart (Figure 2). To simplify the graphic representation, the chart reports the average value of the dimension, even if it is not the most correct way to synthesize them.

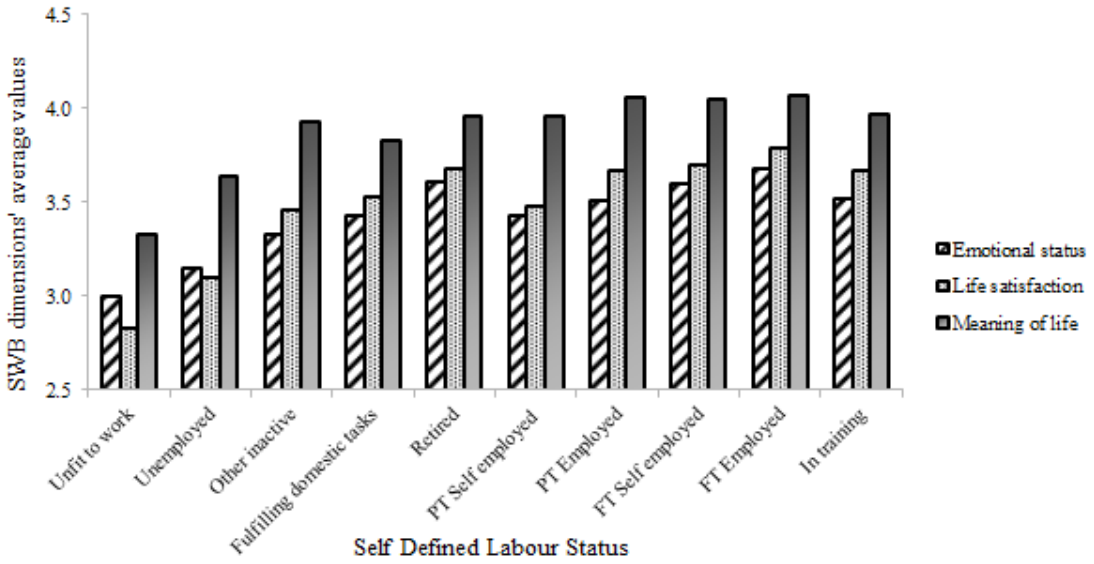

Figure 2 – Levels of subjective well-being according to Labour status (average values)

The comparison between aggregate data confirms the Eurostat analysis conducted on national aggregate data:

1) MOL value is always higher in respect to other dimensions of SWB;

2) The permanently disabled, inactive and unemployed are more often at the lower levels of LS and ES in respect to other respondents; the same is less evident for MOL.

It also highlights that the three dimensions of SWB are not uniform.

To corroborate this result, we designed the distribution of the responses inside a three-dimensional space, traced by the three dimensions of SWB. The Figure 3 shows, with each piece of evidence, that we need to preserve the informative contribution of each dimension because it is impossible to trace a relationship pattern according to the distribution of individual answers.

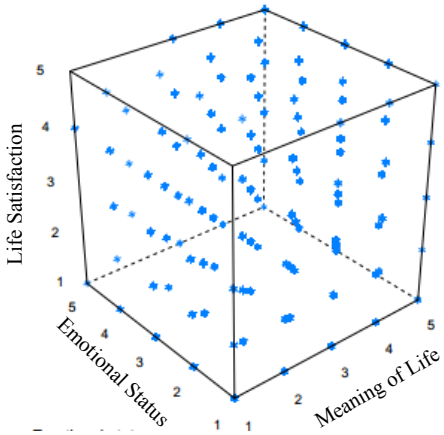

Figure 3 – Three-dimensional representation of respondents' distribution according to well-being dimensions

The three dimensions cannot be synthesized by sum or average. In order to compare different well-being condition with particular attributes of the respondents (e.g. labour status), it is necessary to organize the multidimensional space defined by three SWB dimensions in an ordinal way.

The punctual scrutiny of micro-data revealed that homogeneous answers (i.e. 1,1,1; … 5,5,5) interest 26.3% of respondents. More than 70% of respondents assess the three dimensions with different values. For this reason, we carried out a joint analysis of these dimensions. Putting the variable into a contingency table, we studied the distribution of respondents' choices. Considering the classification on five items, we have 125 potential combinations. In Table 3 there is the classifications of responses according to different dispositions regarded as orderable; Table 4 reports some characteristics of the distribution. Dispositions are groups of combinations (e.g. 1,1,2 – 1,2,1- 2,1,1) considered equivalent, because we have not element to value if one dimension is more important than another in determining SWB. These classifications represent an intuitive form of quasi-ordered sets, able to cover 80.7% of cases. It could be improved by applying the specific methodology Partial Ordered Set (Poset).

Table 3 – Logical ordering of cases

Disposition	All respondents	
	Cases	Percentage
1,1,1	57	0.4
1,1,2	96	0.6
1,2,2	71	0.5
2,2,2	60	0.4
2,2,3	226	1.5
2,3,3	472	3.1
3,3,3	984	6.4
3,3,4	1,514	9.9
3,4,4	2,312	15.1
4,4,4	2,474	16.2
4,4,5	2,013	13.2
4,5,5	1,317	8.6
5,5,5	448	2.9
Not included	3,237	21.2
Total	15,281	100.0

Table 4 – Distribution of respondents according to the three dimensions of SWB

Data distribution	Number	Percentage
Respondents	15,281	
Cells	125	
Homogeneous cells	5	4.0
Empty cells	10	8.0
Reclassified cells	24	19.2
Not included cells	86	68.8
Homogeneous cases	4,023	26.3
Reclassified cases	8,021	52.5
Not included cases	3,237	21.2

The object of the present study is to highlight the differences of the distribution of answers according to SDLS. How is it possible to make those differences explicit in an intelligible way?

We selected the previous four types of respondents: Full-time Employed and Unemployed, Male and Female. We compared then, the quasi-ordered sets. Results are presented in Table 4.

The best performance in terms of well-being lies with men employed full time, which have the highest percentage of respondents that chose 4,4,4 and above; women employed full-time have a percentage of respondents higher than the whole subset with rates of 3,4,4 to 4,5,5. Unemployed (male and female) registers higher values, when compared to the whole sample, up to rate 3,3,4. Differences are lesser for women than for men.

Table 4 – Logical ordering of cases for Unemployed and Full-time Employed, by sex

Disposition	All respondents		Unemployed Male		Unemployed Female		FT Employed Male		FT Employed Female	
	Cases	Percentage	Cases	Percentage	Cases	Percentage	Cases	Percentage	Cases	Percentage
1,1,1	57	0.4	8	1.2	4	0.6	7	0.2	1	0.0
1,1,2	96	0.6	12	1.8	18	2.7	7	0.2	9	0.3
1,2,2	71	0.5	19	2.8	7	1.0	8	0.2	12	0.5
2,2,2	60	0.4	7	1.0	8	1.2	3	0.1	8	0.3
2,2,3	226	1.5	39	5.8	25	3.7	25	0.7	21	0.8
2,3,3	472	3.1	54	8.0	37	5.5	77	2.2	60	2.3
3,3,3	984	6.4	73	10.9	59	8.8	189	5.4	136	5.2
3,3,4	1,514	9.9	86	12.8	76	11.3	308	8.8	235	9.1
3,4,4	2,312	15.1	88	13.1	92	13.7	491	14.1	458	17.7
4,4,4	2,474	16.2	35	5.2	60	8.9	768	22.0	475	18.3
4,4,5	2,013	13.2	36	5.4	66	9.8	552	15.8	370	14.3
4,5,5	1,317	8.6	26	3.9	38	5.7	343	9.8	269	10.4
5,5,5	448	2.9	7	1.0	11	1.6	132	3.8	66	2.5
Not included	3,237	21.2	181	27.0	170	25.3	579	16.6	473	18.2
Total	15,281	100.0	671	100.0	671	100.0	3,489	100.0	2,593	100.0

CONCLUSIONS

Data analysis confirms, at the micro level, the relevance of Labour status in relation to the subjective well-being condition. Labour status, however, influences perception of subjective well-being with several nuances. There are, in fact, some discriminants that reduce or enforce the effects of labour status on subjective well-being. One of this is, for example gender, even if it seems to have no significant relationship with subjective well-being at aggregate level.

The hypothesis that work is connected with the self-realisation, and the sense of purpose, is neither confirmed nor refused by these data analysis. There was, in fact, neither information about self-realisation nor sense of purpose in the questionnaire. Meaning of life is perhaps a concept not strictly connected with these aspects. Anyway, the differences registered between female and male evaluation of SWB, in particular labour status, suggest the influence of cultural and social roles, that inform the sense of purpose and the perception of self-realisation.

The results also confirm that the three main dimensions of SWB cannot be analyzed with aggregating methods. The differences in distribution provide high interpretative supports, and are fundamental for our object of study. An unexpected result is, for example, that labour status seems to have the most influence on emotional status, and the least on meaning of life. This could be a positive result if we consider that emotional status is a temporary condition which can easily change in different contexts, while meaning of life is defined a holistic item that embraces personality and other invariant individual characteristics. Nevertheless, these considerations need an ad-hoc study with a more punctual specification of labour status. Within this dataset, we do not actually have enough information about the length of the Labour status, the previous status, or the choice of the status and the defined or non-defined term of the contract. Furthermore, even the selection of indicator for eudaimonic well-being should be more consistent with the concept of self-realization.

To take account of the multidimensionality of SWB, we have applied an ordering of answers based on logic, which enables comparing different groups of respondents, without reducing conceptual dimensions. This approach appears effective for the purpose.

REFERENCES

Diener, Ed, and Robert A. Emmons.1984. "The Independence of Positive and Negative Affects." *Journal of Personality and Social Psychology* 47(5): 1105-1117

Diener, Ed, Derrick Wirtz, Robert Biswas-Diener, William Tov, Chu Kim-Prieto, Dong-won Choi, and Shigehiro Oishi. 2009. "New Measures of Well-being." Pp.247-266 in *Assessing Well-Being - The Collected Works of Ed Diener.* Springer International Publishing Agency.

Dubar, Claude. 2000. *La socialisation. Construction des identités sociales et professionnelles*. Paris: Armand Colin Editeur.

Eurofound. 2012. *Trends in Job Quality in Europe.* Luxembourg: Publications Office of the European Union.

Eurofound. 2016. *VI European Working Condition Survey*. Luxembourg: Publications Office of the European Union.

Eurostat. 2013. *Eu-Silc Module on Wellbeing - Assessment of the Implementation*. http://ec.europa.eu/eurostat/documents/1012329/1012401/2013+Module+assessment.pdf

Eurostat. 2015. *Quality of life, Fact and Views*. Luxembourg: Publications Office of the European Union.

Eurostat. 2016. *Analytical Report on Subjective Well-being*. Luxembourg: Publications Office of the European Union.

Fattore Marco, Filomena Maggino, Alberto Arcagni. 2015. "Exploiting Ordinal Data for Subjective Well-being Evaluation." *Statistic in Transition. The measurement of Subjective Well-being in Survey Research.* 16(3): 400-428.

Gallino, Luciano. 2011. "Il lavoro oggi: merce o valore." in *Lavoro e lavori. Strumenti per comprendere il cambiamento,* edited by Giorgio Gosetti. Milano: Franco Angeli

Huppert, Felicia A., Nic Marks, Andrew Clark, Johannes Siegrist, Alois Stutzer, Joar Vittersø, and Morten Wahrendorf. 2009. "Measuring Well-being Across Europe: Description of the ESS Well-being Module and Preliminary Findings." *Social Indicators Research* 91(3): 301-315.

Huppert, Felicia A., and Timoty T.C. So. 2013. "Flourishing Across Europe: Application of a New Conceptual Framework for Defining Well-being". *Social Indicator Research* 110(3): 837-861.

ILO. 1944. *Declaration of Philadelphia*. http://www.ilo.org/dyn/normlex/en/f?p=1000:62:0::NO:62:P62_LIST_ENTRIE_ID:2453907:NO#declaration

ILO. 2013. *Decent work indicators. Guidelines for Producers and Users of Statistical and Legal Framework Indicators*. Geneva: ILO.

ILO. 2015. *Future of Work Centenary Initiative Report*. Geneva: ILO.

ILO. 2017. *World Employment Social Outlook Trends 2017*. Geneva: ILO.

ILO. 2017b. *Decent Work and the 2030 Agenda for Sustainable Development*. Geneva: ILO.

Maggino, Filomena 2015. "Subjective Wellbeing and Subjective Aspects of Wellbeing: Methodology and Theory." *Rivista internazionale di scienze sociali* 128(1): 89-121.

Michalos, Alex C. 1985. "Multiple Discrepancy Theory." *Social Indicator Research* 16(4):347-413.

Nussbaum, Martha C. 2011. *Creating Capabilities. The Human Development Approach.* Cambridge, Mass: The Belknap Press of Harvard University Press.

OECD. 2013. *Guidelines on Measuring Subjective Well-being*. Paris: OECD Publishing.

Riccardini, Fabiola, Maria Bachelet, Giorgia Bressan, Paola Conigliaro, Dalila De Rosa, and Daniele Vazquez. 2016. *Sviluppo e benessere sostenibili. Una lettura per l'Italia.* Roma: Universitalia.

Ryan, Richard M., and Edward L. Deci. 2001. "On Happiness and Human Potentials: a Review of Research on Hedonic and Eudaimonic Well-being." *Annual Review of Psychology.* 52:141–66.

Ware, John E., Kristin K. Snow, Maria Kosinski, and Barbara Gandek. 1993. SF-36 *Health Survey – Manual and Interpretation Guide*. Boston: Nimrod Press.

Waterman, Alan S. 2008. "Reconsidering Happiness: a Eudaimonist's Perspective". *The Journal of Positive Psychology.* 3(4): 234-252.

WHO. 2010. *Mental Health and Well-being at the Workplace – Protection and Inclusion in Challenging Times*. Copenhagen: WHO Regional Office for Europe.

APPENDIX A

Table 1. Respondents by sex and age class, in the whole sample, in the well-being respondents subset and in the referring subset.

AGE CLASS	Whole sample			Subjective Well-being subset			Percentage of respondents to the SWB module			Referring subset Age 26-65 No-missing Well-being items		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Up to 25	2,013	1,948	3,961	508	573	1,081	25.2	29.4	27.3			
26 - 35	2,219	2,257	4,476	1,009	1,250	2,259	45.5	55.4	50.5	931	1,156	2,087
36 – 45	3,207	3,454	6,661	2,050	2,506	4,556	63.9	72.6	68.4	1,889	2,304	4,193
46 – 55	3,418	3,578	6,996	2,360	2,711	5,071	69.0	75.8	72.5	2,158	2,496	4,654
56 – 65	2,966	3,218	6,184	2,288	2,428	4,716	77.1	75.5	76.3	2,119	2,228	4,347
66 – 75	2,494	2,735	5,229	2,050	2,135	4,185	82.2	78.1	80.0			
76	1,764	2,768	4,532	1,401	2,163	3,564	79.4	78.1	78.6			
Total	18,081	19,958	38,039	11,666	13,766	25,432	64.5	69.0	66.9	7,097	8,184	15,281

Table 2. Correlation between Labour status, Age class, Educational attainment and three dimensions of Subjective well-being (ordinal categories) – Kendall's Tau-b coefficient

Kendall's Tau-b	Labour status	Age class	Educational attainment	Life satisfaction	Meaning of life	Emotional status
Labour status	1	-.131**	.221**	.151**	.109**	.138**
Age class	-.131**	1	-.211**	-.052**	-.061**	-.061**
Educational attainment	.221**	-.211**	1	.148**	.125**	.125**
Life satisfaction	.151**	-.052**	.148**	1	.500**	.373**
Meaning of life	.109**	-.061**	.125**	.500**	1	.310**
Emotional status	.138**	-.061**	.125**	.373**	.310**	1

** Correlation is significant at the 0.01 level (2-tailed). Sig. 0.000. Number of records 15,190

Table 3. Level of three dimensions of Subjective Well-being (percentage of respondents)

Level of SWB	Emotional status	Life satisfaction	Meaning of life
1	1.7	4.1	1.8
2	9.2	5.6	2.7
3	33.2	28.0	20.6
4	44.9	47.5	46.7
5	11.0	14.8	28.2
Total	100.0	100.0	100.0