PSYCHO-SOCIAL COORDINATES OF GRADUATES' JOB SATISFACTION

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Abstract. *In this paper, we aim at laying the foundation for, and present the results of, a study on the multidimensional construct of graduates' job satisfaction (JS). The crucial issue involves the psychological frame used by graduates to appraise their job and express their satisfaction. In particular, we analyse whether they compare their work position with that of people of the same age, or of people who gained the same degree or the same job, or else with the work of parents while they judge the qualities of their job. The psycho-social and cultural coordinates of job satisfaction are analysed using the data collected in 2010 with the Agora survey from a sample of graduates at the University of Padua. There is evidence that university and work peers are the only references of freshly recruited graduates when they rate their own job satisfaction.*

Keywords: *Job satisfaction, Psycho-social coordinates of a concept, Effectiveness assessment, University of Padua.*

1. PSYCHO-SOCIAL COORDINATES OF JOB SATISFACTION

In order to understand how young graduates approach the labour market, it is important to evaluate the meanings of their work experience. A choice concerning labour can be seen as a set of personal and social strategies to manage the demands of the organisation, in which feelings and emotions associated with everyday social interaction take place, emotional and social relationships are constructed and the interaction between individuals and the work context are set (Sarchielli, 2008).

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Henceforth, we study the psycho-social aspects of job satisfaction (JS) within a relational model. Our leading question is: "*To whom do graduates compare themselves when appraising their job, and how do these comparisons influence their job attitudes?*" We will highlight if graduates' psychological frames influence their expressions of satisfaction for the job they are in. The frames are defined in terms of the social groups to which graduates compare themselves.

Sociologists and psychologists have studied the reference groups that may condition job satisfaction elicitation (among others, Bonjean *et al*., 1967; Hodson, 1985) as have economists, with reference to salary (see Gao and Smyth, 2009, among others). These authors found that comparisons between respondents' occupational facets and the prestige of some reference group (fathers, brothers, spouse and class-origin peers as well as other workers of a similar social class) could affect survey responses.

In general, attempts to explain job and life satisfaction through reference group theories[2] have to take into account the structural features of the society, such as social stratification and patterns of adult socialisation (Form and Geschwender, 1962), or of economic uncertainty and labour market mobility (Gao and Smyth, 2009). Clark *et al*. (2009) name as a "signal effect" the relationship between reference groups and JS, highlighting that JS measures might depend on "signals" from the social and work environment. Hence, a panoramic, structural view is needed if reference groups are involved in conceptualising or measuring work satisfaction.

A first hypothesis on reference groups is that they are people who are currently within the workers' sphere (Adams, 1963). For instance, "too much" success may create feelings of guilt or psychological conflicts with co-workers and within the individual's own small world, and this may reduce JS.

In general, a higher profile job is considered as a means of self-expression, whereas at a low level, it is mainly seen as a tool for survival.[3] Factors that may

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[2]   People are influenced by social groups they perceive as their references. They use certain groups as a guide as to how they should behave (normative reference groups), or they may use groups as a basis for comparing themselves to other individuals or other groups (comparative reference groups). Moreover, they can and do use more than one group as a reference guide (multiple reference groups).

[3]   Following Friedlander (1965), we can say that blue-collar workers tend to attribute greater importance to extrinsic values, whilst white-collar workers' value systems are more intrinsic in nature. McClelland (1961) highlighted that educated young adults with a successful experience at school are generally interested in complex and prestigious professions, and that altruistic and self-expressive motives may help in the understanding of choices oriented either towards care or creative professions, respectively.

influence job assessment are both individual and social, as follows: personal resources and the cognitive demands of work roles should cohere; socio-economic factors and the supporting family may define job opportunities; work contents are often elaborated and transmitted through generations; and familiarisation with work contents may bring about criteria for social integration. Factors related to gender may also influence JS assessment, since there are still social images of women's work that may give precedence to external variables and subjective expectations.

It is necessary to understand the psycho-social processes that determine labour choices, because employment is not a single decision, but rather a sequence of numerous events that involve the capacity of decision making and interact with social, economic and personal factors. Work activities and positions are subject to frequent changes and this puts to the test people's adaptability, their values and attitudes and the social powers related to work and production. At first employment, professional integration correlates with the socialisation process at work since it has a profound effect on the self-definition and on the construction of a work identity, on the attribution of meaning to the work experience and on the construction of social memberships.

Choices about work may be read from different perspectives. From an *individual perspective*, the focus is on preferences and beliefs about one's job involving certain behaviours instead of others. In this respect, two value systems may make the difference between individuals: the *intrinsic values* of the job, which means that an interesting and challenging job, where one can learn and contribute personally, may allow the development of her/his potential and provide accountability and autonomy; and job *extrinsic values*, such as salary, security and benefits that can improve familial and social statuses.

The *social perspective* refers to criteria that guide social interpretations and individual choices and determine social memberships. Five dimensions emerge about the ways people attribute value to their job: (a) its *centrality*, namely the degree of importance one attributes to work, either in comparison with other dimensions of personal and social life, or in absolute terms; (b) the *social norm*, which refers to one's task to contribute to collective welfare; (c) *work values*, which represent the purpose of work itself; (d) the *objectives*, which correspond to the importance attributed to different aspects of work, among which goals play an important role; and (e) the *identification* with the assigned work roles.

From a *psycho-social perspective*, values may explain the effects of changes in working life, suggesting possible improvements and re-designs. Hence, work may be considered as a social activity directed towards goals valuable to the person,

to be contextualised within socio-historical and personal frameworks. Occupational choices are oriented towards the satisfaction of people's deepest needs (*psychodynamic and motivational approaches*). Gottfredson (1981) and Holland and Gottfredson (1992) assume that job preferences reflect the relationship between the self-image and one's representation about employment (*psychometric perspective*). Accepting a job is thus the result of a compromise between personal preferences and work accessibility.

Cognitive-behavioural approaches (Peterson and Cortéz Gonzàlez, 2000) conceptualise labour choices as an interaction between cognitive and affective processes. The knowledge of one's job, the knowledge of oneself and the ability to look for information are taken into consideration. Information is aimed at reducing the illusory beliefs about the job developed in pre-working phases.

According to the *evolutionary perspective*, the encounter with a job is a problem of the positive adaptation of the self. Occupational choices are able to express a person's self-concept, but also to influence the progressive changes in the experience. JS depends on the congruence between the self, personal values and interests and situational factors, which must be congenial to, and stimulating of, self-development. Choices are determined by the comparison of one's self-conception with the opportunities offered by work contexts. Therefore, an occupational choice is not necessarily driven by the real self, but rather by one's ideal self; a choice does not represent an act of self-affirmation, instead, it is an incentive to search for something really wanted. Indeed, this is permitted in a second stage by the acquisition of skills and the realisation of one's intentions.

Social learning theories are influenced by the concept of self-efficacy (Bandura, 1986), which refers to the self-perception of personal qualities compared to task demands, the perception of being able to successfully carry out a specific task, its significance and the situation in relation to the self. When people make work choices, they are faced with the difficulties of searching for information on possible alternatives, setting goals and clarifying their own values. Such a long process may be influenced by several factors. In the case of graduates entering the business world, the process entails both dealing with people, social environments, social rules, roles and tasks that are new, and the matching with a situation full of stimuli to be deciphered and interpreted.

When people are engaged to solve current problems in their working life, they experience a new environment without the emotional support and relationship of the previous stages, and find themselves in a possible conflict between objectives: on the one hand, the organisation interested in the person's ability to assume a productive role and, on the other hand, the inconsistencies that newcomers may experience between the real world and their expectations and needs and the projects

that drew them to that organisation.

Work is an expression of individual and collective values; it is determined by both value-concepts and interactions with the specific contexts. The interplay between these factors determines an array of complex mechanisms in which opportunities and constraints can bring out the subject's ability to obtain, increase or waste the chances he or she is presented with during his or her life (Dahrendorf, 1979; MOW, 1987).

Rokeach (1973) defines a value system as "an enduring organisation of (values) along a continuum of relative minor importance", thereby assuming that it is a structure of relatively stable and consistent priorities. A work value is a construct that delineates what is important and right in terms of goals, objectives and conduct modes for the individual and society (*work finality*), what should be right to do and what leads one to keep working in different contexts (*work ethic*). Values are prescinded from specific situations and are applied as normative standards for choosing between alternative actions, thus representing what is socially or personally desirable (Allport, 1961; Pennings, 1970; Schwartz, 1992; 1999; 2007; Bellotto, 2007; Sarchielli, 2008).

Values related to one's job that have a more specific meaning than general values are demands that people have about their job and are used by them as guiding principles for the evaluation of their results, e.g. the cultural environment between different work options (Ros *et al.*, 1999).

Henceforth we will test the relationship between graduates' values and JS. Unlike values, JS is an attitude, "a pleasurable or positive emotional state resulting from the appraisal of one's job" (Locke, 1976). Considering satisfaction as an attitude means to examine job's emotional, cognitive and behavioural components.

Satisfaction is the result of a behavioural cycle. It reflects the person's evaluation of the outcomes s/he has produced in relation to needs, motives, values or goals that are important to her/him. Theoretically, it is a particularly important relationship between motives, behaviour and outcomes, as well as a component of the person's controlling and regulating system.

The rest of the paper is organised as follows: Section 2 describes data, methods and the model for data analysis; Section 3 the results of the data analysis; and Section 4 concludes.

2. DATA, METHODS AND ANALYTICAL MODEL

The data used for the study were taken in an experimental investigation from a sample of 712 graduates at the University of Padua. These graduates obtained their diploma between November–December 2009 and February 2010 and were interviewed six through nine months after graduation.

Each sample unit received a cover letter in which the research aims and the interview were presented. Once contacted though the phone (CATI – Computer-assisted Telephone Interviewing), if respondents stated they were employed while being interviewed, they completed the questionnaire on the phone; otherwise, a (reduced) web version of the questionnaire (CAWI – Computer-assisted Web-based Interviewing) was sent to them with an email for online self-administration. The adopted questionnaire was based on the Agora[4] survey (Fabbris, 2010).

The data discussed in this paper refer to graduates' opinions about the job and use of skills. We will examine their responses to the question on how much they were satisfied with their current job, submitted on a 1 to 10 scale and to 26 work-related items to be evaluated on the same 10-point scale. These items were then grouped into six dimensions: a) relation of job with major, b) work acknowledgments, c) economic benefits, d) job autonomy and variety, e) social relations and f) organisational and physical aspects.

Graduates were also requested to indicate verbatim the work issues they considered most important (e.g. their value system) in scoring satisfaction with their current job. Responses were grouped into the six dimensions previously described and coded. Additionally, a question was asked to assess with whom graduates compared themselves when they expressed their satisfaction (possible answers: other fellow students, family, colleagues, everyone in general, oneself). Two more questions were asked so as to understand how new graduates evaluated their current situation. Specifically, they were asked to report whether they thought themselves in a better, equal or less favourable situation with respect to their fellow students, or to other graduates in general. All these variables define the value system of graduates.

Other factors considered for the analysis were:
– Social environment: characteristics of the town ($> 20,000$ people), employment sector (private vs. public), and company size (small vs. large).
– Family background: qualifications and father's occupation, as well as mother's education and whether she had a job.
– Curriculum: university majors grouped into four areas (life sciences, technical or scientific, social sciences and the humanities), bachelor vs. master; and degree mark.

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[4]   The Agora study promoted by the University of Padua was based on a longitudinal survey on the working paths of graduates in the years 2007 and 2008 (Fabbris, 2010) . The survey is based on a telephone (CATI) survey held three times in three years (6, 12 and 36 months after graduation).

– Control variables: gender, employment status before graduation and age at graduation.

The relational model is described in Fig. 1. The dependent variable (y) is the overall satisfaction in relation to one's current job. Since the objective of our work is to identify the psycho-social coordinates that may affect the responses on JS, we considered as predictive factors the social environment and family background (Z_1), the school and academic curriculum (Z_2), the facets of work quality (Z_3) and the value system (Z_4) of graduates. Control variables are denoted with Z_0.

In the analytical model, we ignored life satisfaction even though we believe that, for graduates who have entered the labour market within just a few months, having found a job is the primary determinant of life satisfaction. Hence, in this period of life, job and life satisfaction might coincide.[5]
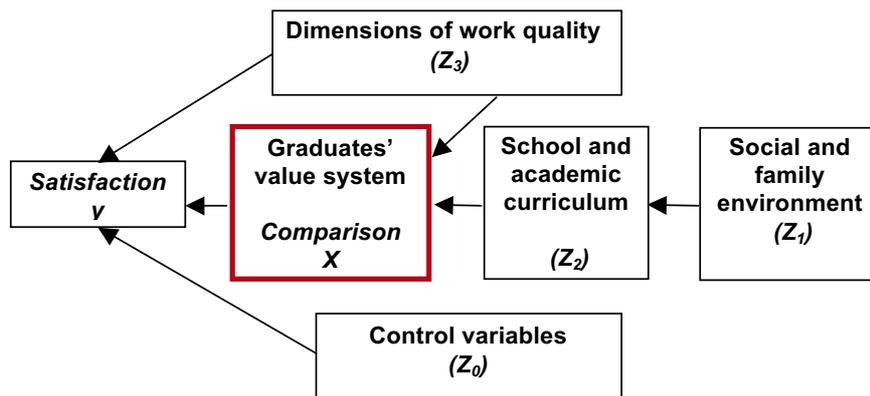

Figure 1: Relational model between dimensions of job satisfaction

3. RESULTS

The sample of 712 graduates was composed of 50.6% males and the large majority (87.2%) of graduates came from the Veneto region. Of the total, a quota of 10.7% graduated in a Life Sciences study programme, 38.5% in a Technical-Scientific

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[5] Similar outcomes are highlighted in Rode (2004). Analysing US data with an integrated model, Rode found that life and job satisfaction are so correlated in time that their relation becomes not significant after taking into account self-evaluation and environmental variables that influence both types of satisfaction in the same manner.

one, 22.2% in the Social Sciences and 28.7% in the Humanities. At the time of obtaining the qualification, 30.1% worked and 70.5% had earned a bachelor's degree. The average final grade is 97.8 for those who were employed at the time of graduation, compared to 100.7 for those who did not work [t = 3.75 p < 0.001].

As we can see from Table 1, six months after graduation, about 58% of graduates were employed. The employment rate was higher for graduates aged more than 27 years.

Table 1: Employment rate of the University of Padua graduates, according to age at graduation and gender

Age at graduation	Males		Females		Total	
	n	%	n	%	n	%
_ 27	325	51.7	311	56.6	636	54.1
> 27	35	80.0	41	95.1	76	88.2
Total	360	54.4	352	61.1	712	57.7

Final grades (Tab. 2) are higher in the field of Humanities and Life Sciences. The final grade is higher for students enrolled in five-year study programmes than in three-year ones. This may be due to the impact of first-year university courses (generally basic courses), which are generally more difficult to complete. Accordingly, students tend to achieve lower grades in their first year. Afterwards, students will be confronted with modules that match personal as well as their professional interests.

Table 2: Average final grade by type of degree and study major

University major	First cycle			Second cycle			Total		
	n	M	DS	n	M	DS	n	M	DS
Life Sciences	41	98.3	6.07	35	103.6	6.90	76	100.7	6.95
Technical, Scientific	207	93.8	7.49	67	104.3	5.58	274	96.4	8.39
Social Sciences	117	95.8	7.86	41	105.8	5.57	158	98.4	8.54
Humanities	137	101.2	6.12	67	104.9	5.67	204	102.4	6.22
Total	502	96.7	7.74	210	104.7	5.85	712	99.0	8.11

Legend: Life Sciences: Medicine, Veterinary, Pharmacy, Biology and Agriculture; Technical-Scientific: Engineering, and Science; Social: Political Science, Economics, Statistics and Law; Humanities: Arts and Humanities, Education and Psychology

3.1 JOB SATISFACTION OF GRADUATES

On average, graduates' JS is high: 7.35 (on a 1–10 scale), whereas life satisfaction of the employed graduates is 7.64 (Tab. 3). The unemployed scored

much lower, as concerns life satisfaction [7.13; t=-4.814; p<0.001]. Although the difference seems limited in absolute terms, it is in line with the relevance attributed in the literature to work for establishing the overall well-being of persons.

The difference is not so marked because of the relatively short time that has passed since graduation, a proximity that may induce graduates to refer their feelings more to the study experience they just concluded than to a just-started future as represented by work. Another cause may be that periods immediately after graduation are devoted by several graduates to traineeships and other training activities that some conceive as surrogates of work.

There is a significant difference in JS according to whether students earned a bachelor's degree or a master's: the former are less satisfied than the latter (7.16 vs. 7.63; t = -2.93; p<0.05). Those in possession of a bachelor's degree reported lower levels of life satisfaction as well (7.53 vs. 7.79), but this difference is not significant.

Table 3: Average satisfaction for work and life of Padua graduates according to employment status and degree type (n = 712)

	Life satisfaction	*Work satisfaction*
Employed graduates (n = 411)	7.64 (1.33)	7.35 (1.64)
– *who earned a 1ˢᵗ cycle degree (n = 244)*	7.53 (1.32)	7.16 (1.76)
– *who earned a 2ⁿᵈ cycle degree (n = 167)*	7.79 (1.34)	7.63 (1.42)
Unemployed graduates (n = 301)	7.13 (1.44)	
– *who earned a 1ˢᵗ cycle degree (n = 258)*	7.11 (1.45)	
– *who earned a 2ⁿᵈ cycle degree (n = 43)*	7.28 (1.39)	
All graduates (n = 712)	7.43 (1.40)	
– *who earned a 1ˢᵗ cycle degree (n = 501)*	7.32 (1.40)	
– *who earned a 2ⁿᵈ cycle degree (n = 210)*	7.69 (1.36)	

Graduates who were unemployed believed themselves to be in a less favourable position in comparison to both graduate peers and same-age peers, whilst the employed, on the whole, felt themselves in a better position than same-age peers and sometimes also than unemployed graduates (Tab. 4). In fact, quite a few (14.6%) graduates looking for a job felt themselves to be in a more favourable position than their same-age peers, whilst the employed – even though they earn initial salaries and their job was not on a tenure basis – not only felt themselves in a position better than age peers (54%) but also than other graduates (29.9%) who are, it is easy to guess, in a more uncertain position. Just a limited quota of graduates (8%), whether employed or not, felt themselves in a worse position than age peers.

In comparison with other graduates, the employed believed themselves to be in an equal (65%) or more favourable (29.9%) position compared to 88.7% and 6.3%, respectively, of the unemployed [χ^2=61.7, p<0.001]. No doubt, getting a job reinforces the feeling not only that the return to one's own educational efforts is positive, but also that her/his life choices were the right ones.

Among the unemployed, the overall feeling is not fully negative. In fact, 77.1% rated their situation as analogous to that of people of the same age [χ^2 = 120.3, p<0.001] and 88.7%, which is analogous to that of other graduates. Hence, this may mean that the unfavourable economic conditions allow graduates who do not to find a job shortly after graduation to make allowances for themselves. *A trouble shared is a trouble halved*. However, what makes the very difference for a young graduate is not the degree achieved at university, but the work that may follow on it.

Table 4: Percentage distribution of Padua graduates according to feelings about their situation with reference to same-age peers and other graduates, by employment status

	Worse	*Equal*	*Better*	*Total*
Reference: same-age peers				
Employed (n = 411)	7.8	38.2	54.0	100.0
Unemployed (n = 301)	8.3	77.1	14.6	100.0
Total (n = 712)	8.0	54.7	37.3	100.0
Reference: other graduates				
Employed (n = 411)	5.1	65.0	29.9	100.0
Unemployed (n = 301)	5.0	88.7	6.3	100.0
Total (n = 712)	5.1	75.0	19.9	100.0

In scoring their job and life satisfaction, graduates compare themselves with reference groups. The comparison took place mainly in a friendship (age peers 36%, fellow students 19%) and work colleague (15.8%) environment. The latter ones, for freshly employed graduates such as ours, represent a new area of socialisation, followed by relatives and other family members (12%). Finally, some graduates (4.6%) showed a defiant attitude toward themselves (Tab. 5).

The correlation coefficient between job and life satisfaction is significant (r=0.45, p<0.001), even if psycho-social theories would make claims for a stricter relation. The global job satisfaction correlates significantly with all the aspects of job quality.

Table 5: Mean (M) and standard deviation (SD) of variables and between-variable correlation coefficients of values-related aspects (n = 411)

	M	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.
Compared with																					
1. Same-age peers	.367	.483																			
2. University peers	.197	.398	-.38**																		
3. Family	.122	.327	-.28**	-.18**																	
4. Everybody	.105	.306	-.26**	-.17**	-.13**																
5. Work colleagues	.158	.365	-.33**	-.21**	-.16**	-.15**															
6. Themselves	.046	.210	-.17**	-.11*	-.08	-.08	-.10														
Value system:																					
7. Coherence	.195	.396	.02	.04	-.05	-.03	-.03	.07													
8. Social prestige	.114	.319	-.11*	-.06	.12*	.05	.08	-.01	-.18**												
9. Salary	.180	.385	-.03	.01	.04	.05	-.03	-.01	-.23**	-.17**											
10. Autonomy	.175	.381	.06	.00	.01	-.07	-.02	-.01	-.23**	-.17**	-.22**										
11. Social relations	.204	.404	-.01	.04	-.06	.02	.05	-.05	-.25**	-.18**	-.24**	-.23**									
12. Firm organisat.	.095	.293	.08	-.01	-.04	.00	-.03	-.03	-.16**	-.12*	-.15**	-.15**	-.16**								
Satisfaction for																					
13. Coherence	6.73	2.15	-.17**	.15**	-.02	-.02	.10*	-.03	.16**	.10	-.25**	.11*	-.01	-.01							
14. Social prestige	6.86	1.65	-.13**	.06	-.04	-.01	.12*	.04	.12*	.11*	-.21**	.03	.04	.04	.73**						
15. Salary	6.86	1.43	-.06	-.08	-.03	.01	.15**	.06	-.01	.05	.01	-.04	.01	.10	.31**	.53**					
16. Autonomy	7.52	1.64	-.11*	-.03	-.02	.01	.15**	.06	.01	.11*	-.15**	.09	.05	.03	.44**	.54**	.46**				
17. Social relations	8.19	1.29	-.04	-.04	.00	-.05	.11*	.06	.02	.01	-.12*	.04	.06	.07	.16**	.34**	.34**	.61**			
18. Firm organisat.	7.71	1.14	-.09	-.05	.01	-.02	.18**	.00	.05	.14**	-.21**	.02	.06	.08	.47**	.56**	.52**	.66**	.49**		
19. Life (overall)	7.64	1.33	-.09	-.03	.03	-.04	.15**	-.02	-.09	.09	-.01	.02	.05	.02	.32**	.34**	.30**	.39**	.25**	.36**	
20. Work (overall)	7.35	1.64	-.11*	-.02	-.02	-.01	.14**	.07	.06	.10	-.13**	.03	.04	.04	.58**	.70**	.52**	.52**	.38**	.53**	.45**

The overall job satisfaction correlates positively in comparison with people of the same age and with other graduates, as regards all value categories but income. No significant difference was detected between the variables related to family environment, nor between workers and non-workers.

Graduates' comparison groups change if job quality is crossed with the type of degree they achieved. Age peers are the reference group of graduates who gained just a first-cycle degree and a low-level job (50.4%), whilst the same group is far less important to those who achieved a master's degree (25.7%).

The values that count for graduates when they score JS are the expectations of human relations at work, a fair coherence between their own job skills and educational major, the salary level and relative autonomy in decision making.

It may be surprising that social relations in the workplace are the most appreciable aspect of the job for employed graduates (average 8.2 out of 10). The second relevant aspect is firm organisation (7.7) and the third the autonomy allowed in activity management (7.5). This means that graduates tend to emotionally invest at work having in mind their everyday work environment. A juvenile, efficient and creative energy-developing job context can improve graduates' happiness and, in turn, release their productive energies.

The value system is almost independent of the group which graduates compare them to. Just the comparison with age peers and the family of origin is mildly correlated with social prestige as a prime value. Graduation marks one's success in climbing the social ladder; this situation positions graduates one step above less-educated peers and qualifies in terms of education almost as parents.

University peers are a relevant reference to master's rather than to bachelor graduates (32.8% vs. 11.7%; see Table 6). Work colleagues are a reference group for people who are fully integrated in a workplace, whatever their degree: 20.8% of the employed who are satisfied for their job refer to work colleagues, versus less than 10% of those whose JS score is below the average.

The satisfaction for the gained job correlates with work colleagues as the main reference group and with job-major coherence as a relevant value in JS evaluation. All this corroborates the research finding that work peers are a "small world" within which the employed graduates compete. The work peers that graduates have in mind are other graduates, or other people in comparable jobs, because work peers are felt to be people at the same step of the social ladder, and become the graduates' yardstick for career development.

These results may mean that reference groups vary according to life phases and to the duration and intensity of experiences shared with people they have met. In this light, it is surprising how low is the importance graduates attribute to the family of origin.

Table 6: Percentage distribution of employed graduates according to reference group and degree type.

Reference group	Above JS average		Below/equal JS average	
	1st cycle	2nd cycle	1st cycle	2nd cycle
Same-age peers	36.9	27.2	50.4	24.2
University peers	13.6	29.1	9.8	36.4
Family of origin	12.6	9.9	9.8	19.7
Everybody	10.8	7.9	13.5	7.6
Work colleagues	21.6	20.0	12.0	7.6
Themselves	4.5	5.9	4.5	4.5
Total	100.0	100.0	100.0	100.0

Another element to be considered is that graduates' work situation (e.g. precarious, flexible) is not experienced as a personal problem but attributed to a more general situation typically experienced by people of the same age group. Thus, the possible negative impact of a low-profile job on their self-esteem is greatly reduced.

3.2   A STEPWISE BLOCK-REGRESSION ANALYSIS

In order to partial out the redundant effects, a regression model was employed to test the effects of reference groups on graduates' global JS. The model considers the relationships among the variables presented in Fig. 1 and described in Section 2. The model can be summarised in the following formula:

$$y = f(X \mid Z_1, Z_2, Z_3, . Z_0),$$

where y is the measure of graduates' JS, X denotes the indicators of the graduates' value system, Z_1, Z_2 and Z_3 denote, respectively, the social and familial environments, the school and university curriculum and the dimensions of work quality; Z_0 indicates the control variables, e.g. the strata within which the relationships between JS and reference values are assessed. The variables indexed with Z are thought of as "confounding factors" to be discarded through multivariate analysis for computing a "neat" relationship between X and y.

The regression analysis, carried out with SPSS software, was developed in the following way:

(a) the sets of variables were analysed in blocks according to their causal remoteness from the y variable; causal sets were inserted from the most remote to the closest, namely from Z_1 to Z_3, and finally the X set of variables was included;

(b) within each block, regressors were selected in a stepwise fashion according to their relevance as factors confounding the relationship between *y* and *X*: if a factor interacts significantly with the relationship between *X* and *y,* it is included in the model; and

(c) a significant nominal predictor is included as a block of dummy variables, each dummy identifying a category of the nominal predictor, namely, a 1 is attached to graduates who possess the pertinent attribute, and a 0 otherwise.

The resulting regression model is presented in Tab. 7. The analysis highlights that:

Table 7: Estimates of a stepwise block-regression model with job satisfaction as dependent variable (n = 411)

Variables	R^2 *increase*	*b*	*se(b)*
1 – Control variables	0.01		
2 – Social and family environment	0.01		
3 – University curriculum:	0.05**		
Major (reference: Humanities)			
Life Sciences		-0.14	0.29
Technical, Scientific		-0.24	0.25
Social Sciences		-0.57*	0.23
First-cycle (vs. second-cycle) degree		-0.72***	0.20
4 – Comparison (reference: myself)	0.09***		
Contemporary peers		-0.74*	0.37
Study peers		-0.88*	0.39
Family of origin		-0.74	0.41
Everybody		-0.74	0.42
Work colleagues		-0.14	0.40
All peers		0.49***	0.13
Others		0.40*	0.16
5 – Values (reference: Income)	0.04**		
Major-job coherence		0.85***	0.24
Prestige		1.00***	0.29
Autonomy		0.78**	0.25
Social relationships		0.79**	0.24
Firm organisation		0.83**	0.30
6 – Satisfaction (ref: Firm organisat.)	0.38***		
Major-job coherence		0.14**	0.04
Prestige		0.37***	0.06
Income		0.19***	0.05
Social relationships		0.13*	0.06
Total R^2	0.58***		

*p < .05   **p < .01   ***p < .001

- Social environment and the family, as well as the strata, do not interact with the *y-X* relationship. As a whole, control variables and the social environment explain 2% of the *y* variance. This means that neither the structural variables within which the graduate has lived, nor the biological variables (gender, age) affect substantially the relationship between the graduates' own value system and the elicited JS scores. The outcome that gender operates in conjunction with other factors to produce satisfaction was found also by Hodson (1989).

- University curriculum is statistically significant, even if the quota of JS variance explained by the attended study programme is just 5%, after controlling for the aforementioned covariates. The achievement of a master's degree is much more rewarding in terms of JS than a first-cycle degree. Among university majors, just the degrees in social sciences are of some significance in the analysis of satisfaction for freshly obtained jobs. Hence, there is no evidence that more technically qualified graduates were more satisfied than other graduates, let us say, of graduates in the humanities, nor were they less satisfied as it could be because of discrepancies between the actual rewarding and prior expectations. This outcome may depend on the short time passed since recruitment. In general, in graduates' minds, higher education acts like an express train: the more expensive the ticket, the faster the expected trajectory to the grand destination, namely employment and career. Instead, this is not the case: if success is measured with JS, often the higher the expectations and the more the satisfaction is limited. Other scholars have found that JS depends on individual expectations— which, in turn, are influenced by the level of achieved knowledge and skills— rather than on educational qualification. Moreover, as Kahnemann and Tversky (1983) pointed out, the hedonic reference point is dynamic, for it is determined not only by the objective status quo and by expectations, but also by social comparisons, which can be situational.

- The reference groups and the value system of graduates explain, as a whole, another 13% of the JS variance. The quota is significant, both in statistical terms and in relation to the other examined variables. It is worth noting that this quota can be added to that just introduced by the other screened causal factors.

- Predictors that really count for explaining the variability of JS relate to satisfaction for partial aspects of work. The more significant aspects are the coherence between the major of university studies and the job experienced by graduates, the social and professional prestige induced by job image, the economic benefits and the quality of the social relations with co-workers. As a whole, the facets of graduates' jobs explain another 38% quota of the JS variance. If this proportion is added to the other social, curricular and biological

variables, the total quota of JS explained variance reaches 58%. Of course, one can argue that satisfaction for partial facets is a part of overall JS that is posited as a dependent variable. That is why we performed a block analysis where JS facets were introduced as the last block, so as to enable researchers to exclude the explanatory contribution of partial facets of JS. In this hypothesis, the quota of explained variance is limited to 20%.

• Within the nexus between reference groups and JS, it emerges that graduates' peers, in particular the contemporary and those met at university, are the gold standard for JS assessment. Reference groups act as backgrounds against which, and in conjunction with their value system, graduates evaluate their job and express a satisfaction measure. Since graduates felt differences between their current position, which is not only that of an employed person, but that of a person who is employed in a job "for graduates", they felt themselves in a much better position than same-age peers and enabled them to move about the labour market as graduates, a distinguished social category.

It is not possible to prove what not-working graduates felt about JS, for data on JS were collected just for the employed. However, the collected data prove that life satisfaction of unemployed graduates is lower (7.13 vs. 7.64 of the employed) and the comparison with the reference groups shows that they feel themselves to be in a position even less favourable than that of same-age peers. It is worth noting that, on the average, same-age peers are less educated than they.

4. CONCLUSIVE CONSIDERATIONS

We analysed graduates' JS and determined that it is hard interpreting its variability in the light of individuals' biological and formative variables as well as family, community and work-environment descriptors.

The analysis of graduates' value systems elicited the pinpointing of groups to which they compare their position and enabled us to partially explain the between-individual variability of JS measures. Comparison effects are additive in nature and do not invalidate previous understandings of the role of job facets on determining graduates' attitudes for their jobs. See, for instance, Boccuzzo and Paggiaro (2012).

Hodson (1985) found a similar effect by examining graduates at the middle point of their career. The author highlighted that the facet of job prestige disappears in determining JS when the reference groups are introduced into the correlation model. This implies that prestige at work is an outcome of the comparison of one's own position with that of some social reference groups.

To explain another substantial part of JS variability, characteristics of the

experienced job have to be considered. However, even if we consider these characteristics as predictors, 42% of JS variability still remains unpredicted. Hence, even a model including such an articulated set of intrinsic, social and situational variables as ours leaves unexplained about half of the JS variance.

In our analyses, we compared the satisfaction of graduates putting various reference groups in the background. It emerged that the group of contemporary peers and that of peers met at university denote "small worlds" to which graduates commit their work identity. Work colleagues acquire importance as long as work progresses and as career becomes an actual need.

Therefore, reference groups differ substantially according to type and quality of jobs, role of graduates in their workplace and possibly length of service. We can state that work redefines the graduate's world in a dynamic fashion and the relevance of the shared work experiences ranks one's reference groups while rating both work and life satisfaction.

The comparison with homogeneous and actual groups reduces the stress of some of the weaknesses of young adults' work, for instance the temporariness of the work contract and the flatness of salary that are common to all freshly employed graduates, and does not affect significantly either the satisfaction for work and life or self-esteem.

The overall satisfaction for own job may play, instead, a key role both in determining subjective well-being, and hence work outcomes (better economic performance, lower absenteeism, reduced turnover, career advancements and promotions), and in planning work-related social policies.

We did not find evidence of gender differences in JS, nor differing comparison groups, *ceteris paribus*, between men and women. This is at odds with part of the literature. Among others, Glenn *et al*. (1977) and Hodson (1989) argue that educated working women compare themselves with other working women, rather than to male colleagues, or they may compare themselves to next-door women engaged solely in homemaking and feel relatively satisfied with their employment situation, regardless of the job's characteristics.

Other researches (Carvajal *et al*., 2002; Moguérou, 2002; Souza-Poza and Souza-Poza, 2003; Kaiser, 2007; Gil-Galvàn, 2011; Kucel and Vilalta-Bufi, 2011) converge, instead, with our outcomes in highlighting that graduate women who work tend to compare themselves to other individuals with similar situations in the labour market, rather than to other women, for they picture themselves as workers, the same as men.

In our study, women's reference groups showed a tendency to overlap with those of men. This happens in general whenever women's expectations are rising together

with their better positions in the labour market. So, gender parity for work satisfaction may also be taken as a modernisation indicator of the labour market. However, a gender difference might remain if jobs linked to university majors attended by a large majority of women are concerned (Mora and Ferrer-i-Carbonell, 2009).

Finally, we wish to highlight a negative attitude of graduates that should worry educators. Graduates feel themselves to be a group of people deserving a better fate than youth in general. Although an aristocratic attitude, it should not be condemned because it stimulates the willpower for studying and improving their life. What may be a legitimate cause for worry is the overt inclination of graduates to feel justified if they did not find a job because adequate jobs were denied to them by the persistently difficult economic conditions. This attitude could discourage graduates not only in their search for a job after initial refusals, but also in improving or adapting their own human capital for competing in the job market on equal terms.

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