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**The Leisure Experience: Me and the
Others**

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The leisure experience: Me and the others.

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Abstract

Research on Subjective Well-Being (SWB) recognizes the important role of individual Leisure Satisfaction – measured by responses to a stated leisure experience valuation question – as a mediator of individual Happiness. Leisure is a complex human need, where “non-working time” is not the only productive factor required. In this sense, individual heterogeneity must be taken into account due to the relevance of tastes (each agent defines the boundaries of her own “leisure experience”), skills (since she implements an optimal allocation of resources given a technology to produce and consume that leisure experience), and resources availability.

The purpose of this paper is to investigate the determinants of individual Leisure Satisfaction by using data derived from the 2003 *Survey on Living Conditions and Poverty* for Andalucía (Spain).

Since we assume leisure experience is produced and consumed within the household, utility and household production functions are the basis for our theoretical approach and empirical specification. Then, using a self-reported measure of leisure experience valuation (Leisure Satisfaction), ordered probit models are estimated. These models account both for personal demographic characteristics as well as household socio-economic variables allowing us to disentangle the impact of the latter into the allocation of resources (time and goods) devoted to leisure experience production.

JEL classification: D60, D10, D13, J29.

Key words: Leisure satisfaction, time and goods, resource allocation, stated leisure experience valuation.

1. Introduction and Motivation

Following Beard and Ragheb (1980), leisure satisfaction can be defined as the “positive perceptions or feelings that an individual forms, elicits, or gains as a result of engaging in leisure activities and choices. It is the degree to which one is presently content or pleased with her general leisure experiences and situations. This positive feeling of pleasure results from the satisfaction of felt or unfelt needs of the individual”.

Above definition of leisure satisfaction recognizes the individual's need for leisure. In this sense, leisure is a complex human need with changing boundaries in its conceptualisation, and in the way it is fulfilled through the consumption and production of leisure experiences. It derives entirely from personal perceptions of what is discretionary, enjoyable, pleasurable and satisfying (Kelly, 1982). The leisure experience draws from the meaning of the activity to the individual, not from the activity itself. Leisure may, in consequence, be different things to different people: an activity which is work to one person may bring positive pleasure to another (for instance, many of the household maintenance activities may lie in the boundaries between leisure and childcare). These considerations will depend upon individual's tastes and skills, and the availability of resources (among which we can point out the relevance of time, goods, and social interaction), which will determine individual's optimal factor allocation among alternative uses¹. On the grounds of utility theory, increases in leisure experience are desirable from an individual's perspective and, in general, we assume individuals will do their best, given a particular situation, to maximize their utility. For that reason, the level of satisfaction derived from a given leisure experience will eventually be an important determinant of individual happiness.

Research on the concept of leisure satisfaction is relatively new, and knowledge of this subject remains limited. A couple of studies deal with the determinants of leisure satisfaction in an attempt to design a two layers model for the conceptualization of general satisfaction (Van Praag, B.M.S., Frijters P., and Ferrer-i-Carbonell A., 2003; Van Praag, B.M.S. and Ferrer-I-Carbonell, A., 2004). Donovan, Halpern and Sargeant (2002) report some evidence on the impact of leisure activities on leisure satisfaction and general satisfaction. For instance, a survey in the US, although rather dated, found that for most people leisure is a less important source of satisfaction than job, marriage or family, but for a minority leisure is more important. Among other reasons, leisure activities increase individual well-being because they allow people to switch off

¹ An alternative approach to the concept of leisure is that proposed by Gronau and Hammermesh (2003) who argue that leisure is not the complement of market work, rather is the use of discretionary time that requires the smallest expenditure on goods whose purchase is financed mostly by earnings in market work.

mentally or because of their social aspects. In fact, a consistent theme of research into life satisfaction is that social relationships are very important. These same authors report that some surveys have found that happiness is correlated with satisfaction with leisure activities at around +0.40, declining to +0.20 when controlling for employment, social class and other factor. In line with those reported results, a correlation of order zero of +0.393 between leisure satisfaction and general satisfaction is derived from our dataset, while partial correlation of +0.1718 arises when we control for the influence of other domain satisfactions, namely environmental, financial, home, health and job².

The purpose of this paper then is to contribute further research on the conceptualization of individual leisure satisfaction as a particular domain of satisfaction with life as a whole, providing empirical evidence to disentangle the effects of socio-demographic and socio-economic characteristics on this leisure satisfaction domain accounting for personal heterogeneity. This is made possible with a unique dataset (*Survey on Living Conditions and Poverty* for Andalucía) that includes individual data on reported leisure satisfaction and individual's characteristics. Leisure satisfaction is an elicited variable, expressing the degree of content that a given leisure experience provides to an individual. Thus, the leisure satisfaction variable captures the valuation of how the leisure need is individually satisfied by means of leisure experiences production and consumption. Specifically, we model individual leisure satisfaction by estimating an ordered probit.

We begin with a theoretical model (Section 2) that recognizes leisure as a commodity from a consistent set of utility-maximizing ones including sleeping, lodging, appearance, eating, childcare, health, travel and miscellaneous (Gronau and Hammermesh, 2003). To simplify our approach these other commodities enter into the analysis under the form of a composite capturing survival needs, called "household maintenance". Further, given the important role of individual leisure satisfaction as a mediator of individual happiness, our empirical specification focuses on the determinants of that individual leisure satisfaction. After discussion of our data from the *Survey on Living Conditions and Poverty* in Andalucía (Section 3), we present new evidence on the impact of both personal demographic characteristics as well as household socio-economic variables allowing us to evaluate the impact of the latter into leisure satisfaction, potentially through the allocation of resources (time and goods) devoted to leisure experience production (Section 4). Section 5 concludes.

² +0.393, Spearman correlation between LS and GS (since both outcomes are ordered variables)
+0.1718, Spearman partial correlation between LS and GS accounting other domain satisfaction.

2. Theoretical Model and Empirical Specification

In a model of economic behaviour, individual utility depends on commodities that are produced (using both consumption goods and time), and consumed within the household. In our approach, we follow Becker's (1965) idea of the household as a factory combining market goods and time to produce the utility-maximizing set of commodities. Whether one purchases groceries to combine them with time spent shopping, cooking or enjoying a nice meal is up to the analyst, who must decide into what consistent set of commodities to classify these goods and time uses. Thus, any definition of commodities requires reasonable choices about categories and the classification of inputs of goods and time (for further details on the topic see Gronau and Hamermesh, 2003).

To simplify the discussion, since we focus on individual leisure experience satisfaction, our model assumes individuals derive utility over two specific commodities according to the following utility function:

$$U = U[Z_1, Z_2] \quad (1)$$

where U is the utility of individual i ($i=1, \dots, N$), Z_1 stands for the quantity of the commodity we call "leisure experience" of individual i , and Z_2 includes the rest of other "activities" necessary for individuals' survival (we will call this commodity "household maintenance", being our *composite*). Both $\frac{\partial U}{\partial Z_1}$ and $\frac{\partial U}{\partial Z_2}$ are positive³.

Each commodity is produced using a vector of private market goods and time as follows:

$$Z_1 = f(x_1, \dots, x_n, t_l; X_s, X_e) \quad (2)$$

where $(x_1, \dots, x_n) = x$ is a vector of (private) market goods that are used to produce leisure experience, and t_l is individual's discretionary time understood as that moment when individuals perceive themselves to be free of external demands and in control of their own situations (Kelvin, 1979). Further, X_s is a vector of personal characteristics that parameterise production of leisure experience (i.e., how skilled and

³ Besides taking into account individual heterogeneity in shaping how much a person may like leisure with respect to other human needs (i.e. household maintenance), we recognize that, at least at a conceptual level, there should be a hierarchy between these two commodities. Assuming this, we can potentially handle the residual nature of the personal resources that are devoted to leisure need satisfaction. Since we will work directly with an unknown indirect utility function our approach will be flexible enough to accommodate this fact without having to impose any formal restriction from the beginning.

productive the individual is), and X_e is the vector of environmental conditions that shape the production function – no matter if they work as “extra” non personal public goods or as constraints –. These “environmental variables” reflect the state of the art of production, or the level of technology of the production process.

Equally, the household maintenance commodity is produced according to the following production function:

$$Z_2 = f(y_1, \dots, y_n, t_h; X_s, X_e) \quad (3)$$

where $(y_1, \dots, y_n) = y$ is a vector of (private) market goods that are used to produce household maintenance, and t_h is individual's time devoted to household activities (production and consumption).

The utility function is maximized subject to the production functions constraints (equations (2) and (3)) and the usual budget and time constraints:

$$wt_w + A = \sum p_x x + \sum p_y y \quad (4)$$

$$T = t_w + t_l + t_h \quad (5)$$

where w is the wage rate; A is the individual's non-wage income; p_x and p_y are the prices of market goods used in producing Z_1 ; and t_w is the time spent in the labour market.

The budget and time constraints can be collapsed into a single resource constraint on the individual's “full income”:

$$wT + A = \sum p_x x + \sum p_y y + wt_h + wt_l \quad (6)$$

The utility function (1) is maximized subject to the constraints of the production functions (2) and (3) and full income (6)

The formulation of optimal decision-making can be rewritten in terms of the individual indirect utility function,

$$V_i = V(p_x, p_y, w, A; X_s, X_e) \quad (7)$$

This last indirect utility function will allow the model to be solved for utility given a value of leisure experience and household maintenance, in terms of all exogenous parameters.

Understanding leisure satisfaction as a “mediator” between leisure experience and happiness, we focus our analysis on the measurement of individual leisure satisfaction, as a specific domain of general satisfaction with life, and the identification of its determinants. We believe that life satisfaction is influenced by many factors other

than leisure experience, while leisure satisfaction has leisure experience as a major input.

We cannot observe the objective leisure experience satisfaction (OLS_i) that a particular individual has reached under her surveyed conditions which would depend on a level of leisure experience and on personal characteristics capturing objective and subjective heterogeneity (some of which are observable and some of which are completely unobservable, such as ambitions or aspiration levels),

$$OLS_i = f_i(Z_{li}^*; X_i) \quad (8)$$

However we can get a measure of her subjective leisure satisfaction (LS_i). This is done by asking individuals how they feel about their current leisure experience. The answer to this question takes discrete values from 1 (totally unhappy) to 7 (totally happy), and we assume that such an answer is meaningful and comparable between individuals (Clark and Oswald 1994; Clark 1997; Ferrer-i-Carbonell, 2002) providing interesting and plausible results. On our empirical specification, the decision on which variables to include is ultimately based on exploratory analysis and data availability. Thus, explanatory variables will include objective (X_{p_i}) and subjective (X_{s_i}) personal variables, socio-economic (X_{se_i}) and household composition variables (X_{h_i}), and social capital (X_{sc_i}) and environmental (X_{e_i}) variables as follows,

$$LS_i = \alpha_1(X_{s_i}) + \alpha_2(X_{p_i}) + \alpha_3(X_{se_i}) + \alpha_4(X_{h_i}) + \alpha_5(X_{sc_i}) + \alpha_6(X_{e_i}) + \varepsilon_i \quad (8)$$

Table 1 reports the definition of the specific variables used for this research. The hypotheses and empirical regularities of these available variables will be discussed in Section 3.

Since LS_i is an ordered categorical variable, we estimate the usual Ordered Probit model (Greene, 1990)⁴. The real axis is divided in intervals $(-\infty, \mu_1], \dots, (\mu_6, \infty)$, such that the latent variable $OLS \in (\mu_k, \mu_{k+1}]$ if $LS = k$ ($k=\{1, \dots, 7\}$).

3. Data and Hypotheses

Our research is based on data from the *Survey on Living Conditions and Poverty* in Andalucía. This consists of a household survey conducted in 2003 by the Institute of Advanced Social Studies (CSIC) in Spain with funding from the Department of Social Affairs of the Andalusian Regional Government. It contains a representative sample of

⁴ We further assume linear dependence between the latent variable OLS_i and the set of independent variables (X_i), α and ε_i , and that $\varepsilon \approx N(0,1)$

approximately 6.000 household respondents providing information on a total of around 21.000 individuals. The target population is all people living in Andalucía aged 18 and over, and the survey is designed to capture the well being of individuals and households. This is a good resource for our analysis given the question on individual leisure satisfaction in addition to its extensive range of individual and standard household survey variables. Our empirical analysis focuses on full questionnaire respondents. A sample⁵ was drawn of 6.393 questionnaire respondents that provided complete information.

We now focus on the identification of determinants of individual's leisure experience satisfaction. Although current economic research provides little guidance on testable hypotheses for individual's leisure experience satisfaction, we can infer some results from our theoretical model and bring some others reported on the literature on time allocation in an attempt to provide a reasonable framework for testing.

Gronau and Hamermesh (2003) point out that leisure is one of the most time-intensive commodities. Therefore, "time" is perhaps one of the most influential factors on individual's satisfaction with her leisure experience. However, we assume that time is not valuable by itself. The passing of time does not provide any pleasure to a given agent. Instead, it is an input that is combined with other productive factors in the household production function. Hence, we begin by considering the relevance of variables that will model the time availability that a given individual may enjoy. In doing so, individual **occupational status** may be one of the most important features affecting the level of one's satisfaction with her leisure experience. Market work is a time consuming activity, so it is supposed that working activities that require more in the market working hours will reduce time availability for leisure (Z_1), as well as for other household maintenance activities (Z_2). This restriction on the use of time will eventually have a potential negative effect on the level of individual leisure satisfaction. Empirical evidence supports this idea as Van Praag and Ferrer-i-Carbonell (2004) find how the number of working hours has a strong negative effect on the amount of leisure satisfaction. This result is further supported by the empirical research of Ahn, *et al.* (2003). In contrast, researchers have investigated the relevant significance between work and leisure as a quality of life measurement (Campbell, Converse & Rodgers, 1976; Haavio-Mannila, 1971; London, Crandall, & Seals, 1977). Results indicate that market work can also deeply influence the enhancement of one's leisure satisfaction.

⁵ The sample is drawn using a stratified, multi-stage design using probability sampling. The principal stratification of the sample takes place by poverty levels, gender and age. Primary sampling units were selected in different ways depending upon the relevant size of municipalities combined with census units.

Time availability can further be constrained with the number of household responsibilities. Thus, **household composition** and, in particular, the **presence of children** and/or of **handicapped persons or elderly with continuous aid requirements** may impose a higher demand of both time and resources devoted to Z_2 (household maintenance). It is expected then, and empirically tested, that individuals with household responsibilities will enjoy their leisure experience to a lesser extent (Van Praag and Ferrer-i-Carbonell, 2004; Gronau and Hamermesh, 2003).

Besides time, personal resources, understood both as private goods and as personal conditions are productive factors needed to produce and consume individual leisure experience. Accordingly, reported **household income** is an individual's resource likely to be positively correlated with leisure satisfaction, as more income means more expenditure capacity in market goods and services to produce leisure experience. Nevertheless, there may also exist a negative relationship between available income and leisure satisfaction (Bonke, Deding and Lausten, 2004), especially when the bulk of household income comes from work (as it limits the availability of time for other non-work commodities – Z_1 and Z_2). To overcome this problem we specifically introduce individual's **leisure expenditure capacity** as the amount of money that potentially goes to produce leisure experience. We expect a positive relationship between this leisure expenditure capacity and the level of leisure satisfaction. In line with this argument, we further control for the amount of **non-basic commodities** within the household as the amount of market goods, services or amenities others than basic ones (e.g., private swimming pool or green areas, garage, dishwasher, pay-TV, PC, second house) that also enter, as resources, into the leisure experience production function.

Equally, **individual's** (reported) **health status**, understood as a personal condition that enables the individual to display more physical effort activities with a smaller level of mental stress, may additionally have a significant positive effect on both leisure time and leisure satisfaction. Since healthier people are more likely to invest fewer resources on health -physical care-, being this one of the components of our composite commodity, they are supposed to choose larger amounts of leisure. Moreover, they may also be more efficient when enjoying their leisure (Chang, W., Oh, Sae-Sook, Oh, Sei-Yi. 2001).

Although we attempt to model individual's satisfaction with one's leisure experience, utility derived from leisure time undoubtedly benefits from the presence of companionable others. Many of the things people do in their non-work time involve other people, and are distinctly more pleasurable if done with other; indeed many things are impossible without others (for an empirical approach on the implications of

Leisure Coordination see Jenkins and Osberg, 2003). Taking into account this social dimension of leisure, **contacts with known people** and **participation in associations** (understood as two dimensions of social capital, namely: informal and formal sociability), are resources that can be used to develop social leisure. Furthermore, variables such as **household type** and **marital status** should also be relevant in the sense that individuals may prefer to enjoy leisure with their closest relatives. However, since many of those activities may lie in the boundaries between leisure experience and household maintenance (depending on a personal appreciation which might also vary with time), we cannot hypothesize a clear effect. Empirical evidence with German panel data (GSOEP) reports a tendency for people to enjoy their leisure time most when they live alone (Van Praag and Ferrer-i-Carbonell, 2004).

The level of satisfaction with one's leisure experience is lastly affected by other personal variables, which mainly capture individual's heterogeneity. In this sense, it is important to take into account the relevance of both tastes (as each agent define the boundaries of her own "leisure experience") and skills (since she implements an optimal allocation of resources given a technology to produce and consume that leisure experience). Individual's **age** and **gender** are some of the factors, which are likely to affect one's evaluation of her own leisure experience. Empirical evidence suggests a u-shaped behaviour of the age regressor and a greater level of leisure satisfaction among men (Van Praag, and Ferrer-i-Carbonell, 2004). Further, we include **subjective social class** as a proxy for people's status (being this a socio-economic concept with multiple dimensions). We believe, the level of individual leisure satisfaction and the reported definition of one's social class are not independent areas as they may capture personal self-perceptions and habits (unobserved individual heterogeneity).

Finally, although individual socio-demographic and socio-economic characteristics seem clear determinants of individual's leisure experience satisfaction, we have to take a look at environmental factors. Some environmental conditions will affect both tastes and skills (technology) since the environment will supply a bundle of non-personal physical capital: green areas, public or commercial areas, cultural and social equipment, and other amenities and services. In order to control for the potential effect on leisure satisfaction of these environmental factors, **type of habitat** is included in our analysis. Residence in small sized towns (less than 20,000 inhabitants) is likely to decrease the level of leisure satisfaction as the services delivered in this places are sometimes far from those claimed to be fair by their residents.

Table 2 reports the means, proportions and standard errors of all the explanatory variables used in the regressions.

4. Results

The next stage of the analysis examines the factors that affect individual leisure experience satisfaction under Equation (8) framework, where we have classified the explanatory variables into 6 different groups, namely: objective and subjective personal variables, socio-economic and household related variables, social capital and environmental variables. Results from the ordered probit estimations⁶ are presented in Table 3 (p-values reported in column 2). In line with previous empirical findings, the relationship between age and leisure experience satisfaction turns out to be u-shaped (reaching its minimum at around the age of 45). No significant differences on leisure satisfaction (*ceteris paribus*) have been found by gender. Having bad health reduces leisure satisfaction whereas having good health does not have any significant effect. We can interpret this asymmetric result considering that perceived health status affects leisure satisfaction in the sense that health is seen as a constraint (bad health reduces leisure satisfaction) but not as a resource (better health does not imply higher leisure satisfaction).

Regarding subjective social class, there seems to exist a nearly symmetric effect around “neither poor nor rich” category with those considering themselves as poor being less likely to be satisfied with their leisure, and those feeling themselves as living in comfortable or prosper families being significantly more satisfied with their leisure. We can assert then, that this subjective perception of one’s social class certainly seems to shape individuals leisure experience satisfaction.

Household composition variables are jointly interpreted, taking into account how each of them potentially affects leisure satisfaction through the allocation of material goods and time to household maintenance in detriment of resources available for the production of leisure experience. As expected, the number of children (16 years or younger) and/or handicapped with continuous aid requirements in the household reduces leisure satisfaction. We can find an explanation in terms of the larger amount of caring time devoted to children or handicapped. Alternatively, It could also be that the presence of children or handicapped creates stress on the adult caregivers, so their

⁶ The effects of the sampling design used by our survey data and in particular, the clustering, stratification and unequal selection probabilities, means that for analysis it cannot be assumed that the sample is drawn from independent and identical distributions. If the assumption of a randomly drawn sample were valid, estimation of equations (2), (4) and (6) could use the standard maximum likelihood estimator for the ordered probit model. However, the complex sample design means that these equations must be estimated using a pseudo-maximum likelihood estimator otherwise the Type I error rates would be substantially above their nominal level α . While the estimates of the parameters β generated would therefore be not efficient, they would be consistent and the estimator of the associated covariance matrix robust (Eltinge and Sribney 1997).

satisfaction derived from a given leisure experience is smaller for them. In line with this argument, it may also turn out that adult's tastes are constrained when it comes to enjoy leisure since they may employ their non-market time in child or sick care boundary activities. Thus, if I take my children to the park and I like being there, it will enrich my leisure experience; however, if it is a duty that I cannot consider in a discretionary way, it will be one of the components of my household maintenance commodity.

We also considered the number of additional adults that live within the household. For analytical purposes, we split them between number of female adults (16 to 65) and male adults living with the respondent, as well as number of older individuals (both men and women above 65 years of age). The purpose of this classification was to disentangle the potential effect of gender and age differences between household activities. Calling for extra-economic arguments (laying on sociological gender arguments) we hypothesized that the number of females could represent extra human resources to produce household maintenance, whereas males could not have a direct effect on discretionary time availability. However, our hypothesis could not be confirmed since the number of adult females and that of males are not significant in our estimations. Nevertheless, results do indicate that the number of less potentially - household - productive ("passive" – elderly) members make individuals more likely to be less satisfied with their leisure.

Regarding household type, as hypothesized, individuals living with their partner report significantly higher levels of leisure satisfaction than those living alone somehow confirming the social dimension of leisure. As for marital status, divorced people are significantly less satisfied than their single counterparts.

We now consider the set of socio-economic variables. Results indicate that students are significantly more satisfied with leisure than workers. This would confirm our hypothesis that occupation influences leisure satisfaction at least through non-working time availability. The effect of the reported definition of the family in terms of socio-economic social class (subjective social class) has already accounted for some of the effects of material resources in the production and appreciation of leisure experiences; to further investigate the consistency of this effect, we have also controlled for leisure expenditure capacity and ownership of non-basic goods. As expected, feeling some strong restriction on leisure expenditure behaviour significantly decreases leisure satisfaction after controlling for all our regressors, including income level. In the same way, having more non-basic goods significantly increases the level of individual leisure satisfaction.

The level of household income is not significant in our estimation confirming our twofold hypothesis, that more money implies more expenditure capacity in market goods to produce leisure experience, but may also implies less time for non-work activities if most of that money comes from work.

Focusing now on the social dimension of leisure, participation in associations, understood as the formal dimension of social capital has not a significant effect on leisure satisfaction in Andalusia; but contacts with known people (informal sociability) have a positive and significant effect on leisure satisfaction. This result confirms the hypothesis that contacts and social capital enter as a productive factor into the household leisure production function.

Finally, regarding the characterization of the type of habitat in which the agent lives, agents living in semi-urban areas are less satisfied with their leisure experiences. This turns out to be a regularity on satisfaction with different services (as reported on Serrano-del-Rosal et al., 2004), it seems that this kind of semi-urban environments provide less amenities and services that those which could be judged as "fair" by their inhabitants.

5. Conclusions

This paper has explored individual's leisure satisfaction in Andalucía, analysing the effect of a number of variables related to optimal allocation of productive factors (time and goods) after accounting for individual heterogeneity. Based on the model of utility theory, we have estimated a model of leisure satisfaction using the *Survey on Living Conditions and Poverty in Andalucía*. We believe this piece of research significantly contributes the small empirical literature on leisure satisfaction.

Results indicate that variables determining time availability significantly influence the production of leisure, confirming Gronau and Hamermesh's claim of leisure as one of the most time intensive individual's commodities. However, there seems to rule a hierarchy of needs between leisure production and the so-called household maintenance activities (*composite*) as the latter significantly determines the maximal amount of leisure experience to which an individual can aspire. Thus, leisure production requires the availability of discretionary time (i.e., time when individuals perceive themselves to be free of external demands and in control of their own situations) and not just of any residual, non-working time.

Furthermore, the study shows that social variables shape leisure satisfaction to a greater extent than economic ones. As previous empirical research points up, household income is not a strong factor for leisure satisfaction. However, our proposed

modelling enriches the construction of leisure satisfaction since subjective social class (i.e., reported definition of the family's self-perception of their socio-economic position) significantly impacts individual's leisure satisfaction. This may be because habit and consumption patterns and valuations are more determined by socio-economic variables (such as leisure expenditure capacity or subjective social class) than by income level itself.

Lastly, there is a distinctive tendency in Andalucía for people to enjoy their leisure time most when they have companions. While the presence of both children and adults requiring continuous aid has a significant negative effect on leisure satisfaction, the presence of a partner, contacts with known people and close relatives are significantly welcome. The interpretation of this effect might be the highest personal interdependency among Andalusians to produce and enjoy leisure.

REFERENCES

- Beard, Jacob G. and Ragheb, Mounir G., 1980. Measuring Leisure Satisfaction. *Journal of Leisure Research*, Volume 12, Number 1, pp 20-33.
- Becker, G. 1965. A Theory of the Allocation of Time. *Economic Journal*, 75: 493-517 (September).
- Bonke, J., Deding M. and Lausten, M., 2004. Time and Money –Are they Substitutes? Presented at the 28th General Conference of The International Association for Research in Income and Wealth, Cork (Ireland).
- Campbell, A., Converse, P.E., and Rodgers, W.L. 1976. *The Quality of American Life*. New York: Russell Sage Foundation.
- Chang, W., Oh, S. S. and Oh, S.Y., 2001. Self-reported health status on leisure satisfaction between the employed and the unemployed. Presented at the 2001 Leisure Research Symposium in Denver (Colorado).
- Clark, A. E., 1997. Job satisfaction and gender: Why are women so happy at work?, *Labour Economics*, vol. 4(4), 341-372.
- Clark, A.E. and Oswald A. J., 1994. Unhappiness and Unemployment, *ECONOMIC JOURNAL* vol. 104(424), 648-659.

- Donovan, N., Halpern, D., and Sargeant, R., 2002, Life Satisfaction: the state of knowledge and implications for government. Strategy Unit. London.
- Eltinge, J. and W. Sribney. 1997. Some basic concepts for the design based analysis of complex survey data. STB 31, (1997): 208-212. College Station, TX: Stata Corporation.
- Ferrer-i-Carbonell, A., 2002. Subjective Questions to Measure Welfare and Well-Being: A survey. Tinbergen Institute Discussion Paper 2002-020/3
- Ferrer-i-Carbonell, A. and P. Frijters, 2004. How important is methodology fro the estimates of the determinants of happiness? Economic Journal, vol 114 (July): 641-659.
- Gronau, R. and Hamermesh, D.S., 2003. Time vs. Goods: The Value of Measuring Household Production Technologies. NBER working paper 9650, April.
- Greene, W., 1990 Econometric Analysis, New York: MacMillan.
- Haavio-Mannila, E. 1971. Satisfaction with family, work, leisure and life among men and women. Human Relations 24(6):588-601.
- Jenkins, S.P. and Osberg, L. 2003. Nobody to pay with? The implications of leisure coordination. IZA DP No. 850, August.
- Kelly, J.R. 1982. Leisure. Englewood Cliffs, NJ, Prentice-Hall.
- Kelvin, P. 1979. A Memorandum on Leisure. London, Sports Council/Social Science Research Council Joint Panel on Leisure and Recreation Research, mimeo.
- London, M., Crandall, R. and Seals, G. 1977. The contribution of job and leisure satisfaction to quality of life. Journal of Applied Psychology 62(3): 328-334.
- Serrano-del-Rosal, R., Vera-Toscano, E. and Ateca-Amestoy, V., 2004. The disutility of waiting time. IESA WP – 0406.

Van Praag, B.M.S. and Ferrer-I-Carbonell, A., 2004. Happiness Quantified. A Satisfaction Calculus Approach, Oxford: Oxford University Press.

Van Praag, B.M.S., Frijters P., and Ferrer-i-Carbonell A., 2003. The anatomy of well-being, Journal of Economic Behavior and Organization, vol. 51, 29-49.

Table 1: Definition of variables

Variables	Label
X_{p_i} = vector of objective personal variables	
age_i	age
sex_i	sex
X_{s_i} = vector of subjective personal variables	
$health_i$	reported health status
def_i :	reported definition of family (perceived status)
X_{h_i} = vector of household composition variables	
$children_i$	number of children in the household
$nummale_i$	number of male adults in the household (16-65 years)
$numfemale_i$	number of female adults in the household (16-65 years)
$elderly_i$	number of elderly in the household (+66 years)
$handi_i$	number of handicapped with continuous aid
$hhold_i$	household type
$marital_i$	marital status
X_{se_i} = vector of socio-economic variables	
lny_i	household income
$working_i$	occupation status
$purchase_i$	leisure expenditure capacity
$goods_i$	non basic commodities
X_{sc_i} = vector of social capital: Participation/Integration Variables	
$association_i$	participation in association
$contact_i$	contacts with known people
X_{e_i} = vector of environmental variables	
$habitat_i$	type of habitat (number of inhabitants)

Table 2: Sample Statistics

Variables	% (means if counts)	Std. errors
<i>Leisure Satisfaction</i>		
Very much unsatisfied	0.0117	0.0048
Much unsatisfied	0.0223	0.0025
Unsatisfied	0.0900	0.0096
Not satisfied not unsatisfied	0.1078	0.0080
Satisfied	0.2996	0.0149
Much satisfied	0.3490	0.0130
Very much satisfied	0.1193	0.0120
<i>Objective Personal Variables</i>		
Age	47.4086	0.3927
Female	0.5174	0.0095
<i>Subjective Personal Variables</i>		
Good health	0.7723	0.0111
Regular health	0.1548	0.0074
Bad health	0.0714	0.0094
Very poor	0.0095	0.0013
Poor	0.1094	0.0103
No poor nor rich	0.6213	0.0164
Comfortable	0.2219	0.0164
Prosper	0.0333	0.0057
<i>Household Composition Vars.</i>		
# children in household	0.3640	0.0161
# male adults in household (16-65 years)	0.6951	0.0195
# female adults in household (16-65 years)	0.6562	0.0158
# elderly in household (+65 years)	0.2422	0.0123
No handicapped in household	0.9419	0.0042
One handicapped in household	0.0491	0.0039
2+ handicapped in household	0.0027	0.0010
Living alone	0.0964	0.0098
Living with couple	0.1962	0.0080
Nuclear family	0.4829	0.0131
Lone parents	0.0766	0.0055
Other household types	0.1477	0.0099
Single	0.2834	0.0100
Married / Common law	0.5631	0.0130
Divorced	0.0426	0.0069
Widow	0.1092	0.0101
<i>Socio-Economic Variables</i>		
Household Income (Euros per month)	1076.99	30.9668
Working	0.4080	0.0121
Unemployed	0.0892	0.0062
Retired	0.2096	0.0125
Student	0.0419	0.0048
Housewife	0.2286	0.0097
All leisure expenditure capacity	0.3482	0.0169
Very high leisure expenditure capacity	0.1262	0.0084
High leisure expenditure capacity	0.1004	0.0080
Low leisure expenditure capacity	0.0965	0.0064
No leisure expenditure capacity	0.3276	0.0164
Lots of non-basic good owner	0.0299	0.0092
Some non-basic good owner	0.1795	0.0100
Few non-basic good owner	0.1753	0.0079
One non-basic good owner	0.2529	0.0103
No non-basic good owner	0.3622	0.0168
<i>Social Capital: Participation/Integration</i>		
No Participation in associations	0.7262	0.0143
Participation in one association	0.1744	0.0109
Participation in more than one association	0.0993	0.0080
Very little contacts with known people	0.1964	0.0139
Little contacts with known people	0.2338	0.0122
Quite some contacts with known people	0.3863	0.0154
Lots of contacts with known people	0.1788	0.0149
<i>Environmental Variables</i>		
Very rural	0.2599	0.0241
Rural	0.2379	0.0226
Semi-urban	0.1732	0.0173
Urban	0.3288	0.0229

Table 3
Ordered probit regression: individual's leisure experience satisfaction

Variables	$\hat{\beta}$	p-value
Objective Personal Variables		
Age	-0.0334	0.000
Age ²	0.0003	0.000
Female	0.0076	0.902
Subjective Personal Variables		
Good health	-0.0111	0.887
Bad health	-0.2021	0.053
Very poor	-0.6276	0.000
Poor	-0.2813	0.000
Comfortable	0.2516	0.003
Prosper	0.6573	0.000
Household Composition Vars.		
# children in household	-0.1441	0.000
# male adults in household (16-65 years)	-0.0309	0.266
# female adults in household (16-65 years)	-0.0012	0.966
# elderly in household (+66 years)	-0.0738	0.113
One handicapped in household	-0.2232	0.010
2+ handicapped in household	-0.8316	0.000
Living with couple	0.2518	0.065
Nuclear family	0.2470	0.113
Lone parents	0.2471	0.131
Other household types	0.2600	0.145
Married / Common law	-0.0500	0.492
Divorced	-0.5892	0.037
Widow	-0.1284	0.308
Socio-Economic Variables		
Household Income (lny)	0.0184	0.589
Unemployed	0.0738	0.325
Retired	0.3004	0.027
Student	-0.0305	0.777
Housewife	0.0398	0.668
Very high leisure expenditure capacity	-0.2535	0.001
High leisure expenditure capacity	-0.2402	0.109
Low leisure expenditure capacity	-0.2589	0.002
No leisure expenditure capacity	-0.2124	0.006
Lots of non-basic good owner	0.6053	0.018
Some non-basic good owner	0.2603	0.027
Few non-basic good owner	0.0723	0.318
One non-basic good owner	0.0069	0.917
Social Capital: Participation/Integration		
Participation in one association	0.0320	0.660
Participation in more than one association	0.0119	0.882
Little contacts with known people	0.2917	0.000
Quite some contacts with known people	0.4026	0.000
Lots of contacts with known people	0.4472	0.000
Environmental Variables		
Very rural	-0.0248	0.773
Rural	-0.0854	0.297
Semi-urban	-0.1440	0.059
$\hat{\gamma}_1$	-2.739	
$\hat{\gamma}_2$	-2.261	
$\hat{\gamma}_3$	-1.513	
$\hat{\gamma}_4$	-1.040	
$\hat{\gamma}_5$	-0.132	
$\hat{\gamma}_6$	1.110	
Sample size (N)	6393	
Log pseudo-likelihood	-9065.01	
Pseudo-R ²	0.0681	

Omitted categories: Male, regular health, no poor nor rich, no handicapped with continuous aid in the household, living alone, single, working, all leisure expenditure capacity, non basic-goods owner, no participation in associations, very little contacts with known people.