

Gender differences in leisure patterns at age 50 and above: micro and macro aspects

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ABSTRACT

The current paper seeks to explore whether there are differences in leisure patterns among men and women aged 50 and above, and whether the characteristics of one's country of residence influence these patterns. Data were obtained from the first wave of the Survey of Health, Ageing and Retirement in Europe (SHARE 2004/5), as well as from the database of the Organisation for Economic Co-operation and Development. The research population comprised 7,769 men and 9,337 women aged 50 and above from 11 European countries. Three clustered-robust logistic regression models examined the likelihood of participating in one or more of three leisure activities: going to sport or social clubs, participating in a course or educational class, and volunteering. Three Blinder–Oaxaca decompositions were used to examine gender gaps in participation in each activity. At the micro level, the results showed that men were more active than women and that men were also less influenced by the observed characteristics. In addition, retirement only increased the likelihood of participating in sport club activities for men. At the macro level, the country's expenditure on culture and recreation was found to contribute significantly to women's participation in leisure activities, especially those in which most of the participants are men. In addition, macro variables as a whole were found to reduce the contribution of the observed micro characteristics. The main conclusion of the study is that the macro factors, especially the country's expenditure on culture and recreation as a percentage of the Gross Domestic Product, contribute substantially to reducing the gender gap in participation in leisure activities in older age.

KEY WORDS—leisure, gender, retirement, macro aspects, older age.

Introduction

The literature on leisure in late adulthood enumerates a variety of factors that influence the likelihood of participating in leisure activities, such as availability of economic resources, state of health and social capital (*e.g.*

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Gagliardi *et al.* 2007; Litwin and Shiovitz-Ezra 2006; Paillard-Borg *et al.* 2009; Silverstein and Parker 2002). In addition, gender has also been found to influence the likelihood of participating in leisure activities (Christin 2012; Janke, Davey and Kleiber 2006; Van Tuyckom and Scheerder 2010). However, researchers are still not in complete agreement about the nature of the participation of men and women in leisure activities. Whereas some researchers have argued that women participate in more leisure activities because they have more hobbies and interests than men do (Ball *et al.* 2007; Janke, Davey and Kleiber 2006; Katz-Gerro 1999), other researchers have argued that men participate in more leisure activities because they have more free time and economic resources than women do (Haller, Hadler and Kaup 2013; Katz-Gerro and Sullivan 2010). Moreover, gender differences are evident in the chosen type of leisure activity, which usually reflect social norms about gender. For instance, findings have revealed that women participate in more high-culture leisure activities owing to early socialisation in the arts (Christin 2012), whereas men usually participate in activities that require more physical fitness (Janke, Davey and Kleiber 2006). Hence, gender differences in leisure participation are influenced by structured social and cultural norms. That is, participation in leisure activities is mainly connected to country-level factors (Bosdriesz *et al.* 2012; Van Tuyckom and Scheerder 2010).

Pfau-Effinger (2005) argued that there is a close connection between culture and the welfare state, as culture modifies the impact of welfare state policies on the behaviour of individuals, and vice versa. Since different groups have different cultural values (Chick 2009) that can be measured by the degree of familism or conservatism, each country stresses specific factors in its welfare policy according to its values. Hence, gender norms as well as values and norms regarding older people are shaped by cultural norms, and are manifested in various welfare policies.

However, there is still a lack of research evidence on the impact of gender norms on the participation of older men and women in leisure activities (Adams, Leibbrandt and Moon 2011; Mock *et al.* 2012), and existing studies have not examined the effect of country-level factors on participation in these activities (Valentine, Allison and Schneider 1999). Because increased life expectancy has resulted in more free time, it is important to explore the micro- and macro-level influences on gender differences in leisure activity participation. This goal is becoming increasingly important in light of other research findings which have revealed that in older age the ability to continue participating actively in society is linked with higher levels of wellbeing and health (Benyamini *et al.* 2011; Grant 2008; Riddick and Stewart 1995).

The current study focused on two aspects: micro aspects and macro aspects. Using data from the first wave of the Survey of Health, Ageing and Retirement in Europe (SHARE) database (2004/5), it investigated three common leisure activities: sport and social clubs, educational courses, and volunteering. In so doing, the research sought to explore whether there are differences between men and women aged 50 and above in leisure activity participation, and whether the characteristics of the country of residence contribute to these differences. It was assumed that gender differences in leisure activity participation are influenced by the social norms prevailing in the country, as reflected in budgets, as these two factors are interconnected. In addition, it was assumed that because the national budget usually aims to moderate inequality (Van Ingen and Van der Meer 2011), gender differences in leisure activity participation among older people will be smaller in countries with higher expenditures for culture or welfare.

Literature review

With the increase in life expectancy, the retirement period has become longer and more significant than it was in the past. As a result, leisure consumption has increased for many people, both in qualitative and quantitative terms. Therefore, the utilisation of leisure time is particularly important in older age, when individuals usually have fewer family constraints and work commitments.

Nowadays, the common perception is that leisure activities are varied enough to fit the myriad preferences of different people. For example, older people are now involved in activities that are similar to those of their children and grandchildren: health clubs, hiking, computers (Weinblatt 2009). The importance of this increasing involvement is reflected in the findings of studies which have revealed that nearly 50 per cent of overall life satisfaction during retirement is related to leisure activity participation (Ball *et al.* 2007; Nimrod and Adoni 2006). However, studies have found gender differences in leisure patterns among older men and women (*e.g.* Ball *et al.* 2007; Janke, Davey and Kleiber 2006; Katz-Gerro 1999). These differences have been linked to common beliefs about gender, as well as to perceptions about what activities are ‘appropriate’ for men and women. For example, men are more likely to participate in outdoor activities, whereas women are more likely to participate in indoor activities (Janke, Davey and Kleiber 2006). Similarly, women participate in more leisure activities that require social involvement, whereas men usually participate in activities that require physical fitness (Gagliardi *et al.*

2007; Janke, Davey and Kleiber 2006; Van Tuyckom, Van de Velde and Bracke 2012). According to Bem (1993), these 'gender-type' leisure patterns reflect social norms and structures which might be even more salient in older age due to the more conservative attitudes exhibited by this population.

Leisure, identity and the gender gap

Although it appears that there is a clear distinction between the leisure patterns of men and women, there is a lack of research on the gendered nature of leisure among older adults (Mock *et al.* 2012), and results of existing studies on the nature of these differences are inconclusive. Some researchers have argued that during retirement there is a decline in participation in leisure activities among men and women, particularly in activities requiring physical exertion (*e.g.* Atchley 1977; Scherger, Nazroo and Higgs 2011). In contrast, other researchers (*e.g.* Ball *et al.* 2007; Silverstein and Parker 2002) have claimed that participation in leisure activities increases among men and women after retirement, whereas there are those who claim that the decline in participation in leisure activities is mostly among men (Stanley and Freysinger 1995). Some researchers have also claimed that women are the main consumers of leisure activities because they have more hobbies and interests than men (Ball *et al.* 2007; Janke, Davey and Kleiber 2006; Katz-Gerro 1999), whereas others have claimed women have less leisure time than men do (Bittman and Wajcman 2000), and that this difference remains stable throughout the lifecourse (Iso-Ahola, Jackson and Dunn 1994; Janke, Davey and Kleiber 2006) because older women still invest many hours in household chores (Gagliardi *et al.* 2007). In addition, it has been argued that participating in leisure activities provides older women with a relief from traditional gender roles (Yarnal, Chick and Kerstetter 2008); that is, leisure activities have a significant impact on how a woman defines herself in terms of gender (Kelly 1982). Therefore, even though there has been some blurring of the distinction between 'masculine' and 'feminine' leisure patterns and activities in recent years, it can still be reasonably assumed that because older people generally hold more conservative attitudes, there will be salient gender differences in leisure patterns.

Moreover, participation in leisure activities may increase in older age, specifically in retirement, because leisure is a mechanism that may facilitate coping with identity conflicts that usually arise at that life-stage (Arai and Pedlar 2003). It can therefore be reasonably assumed that participation in leisure activities will increase during retirement, especially participation in activities that may enhance the retirees' self-esteem or gender identity. Nevertheless, studies conducted to date have not found conclusive

evidence of increased participation in leisure activities after retirement (Janke, Davey and Kleiber 2006; Scherger, Nazroo and Higgs 2011; Silverstein and Parker 2002). The lack of empirical evidence may indicate that in older age, participation in leisure activities is influenced by other factors. In fact, any attempt to address the issue of gender differences in access to leisure should not disregard some fundamental differences in the social and economic status of men *versus* women (Mock *et al.* 2012). More specifically, there is a need to consider the economic and cultural barriers that women may encounter, and that may become even more significant in older age. For example, because labour force participation and hours of work are usually lower for women, they may be more influenced than men by the decline in income after retirement (Scherger, Nazroo and Higgs 2011). These factors affect women's wages and rights in the labour market, and eventually affect retirement income as well. This aspect is especially salient for women who live on their own, because leisure activities are usually more accessible to households with a dual income. However, women also have a longer life expectancy than men (Regan and Partridge 2013), therefore income is becoming an important factor that affects women's economic sustainability and independence in older age (Esser and Palme 2010). In addition, many women have reported that they continue to invest a considerable amount of time in household chores after retirement, and that in many cases they are less mobile than men (Gagliardi *et al.* 2007; Paillard-Borg *et al.* 2009), let alone those who have poor economic resources (Katz-Gerro and Sullivan 2010).

The effect of social and cultural norms

Gender gaps in leisure activity participation may be related to cultural values and norms. Although there are researchers who have focused on the personal considerations underlying leisure activities rather than on the social cultural aspect (Dumazedier 1974), it is necessary to take into account the cultural values held by different population groups in research on leisure activities (Chick 2009; Van Tuyckom and Scheerder 2010). In this connection, gender differences may reflect broader cultural aspects such as gender inequality, gender norms and the gendered division of labour, which eventually affect the gender gap in leisure activity participation (Van Tuyckom, Van de Velde and Bracke 2012). For example, in many societies, the common perception is that men take part in 'dynamic' activities, whereas women take part in 'passive' activities (Baumrind 1980). This perception may reflect the country's gender role norms (conservative *versus* liberal), which also affect access to leisure activity.

In addition to cultural aspects, relevant policy-related factors are also noteworthy, especially policies relating to gender and older age. In that sense, economic aspects are clearly connected to consumption and participation in leisure activities, as most of these activities cost money. As mentioned, women who lack economic resources are less likely to participate in leisure activities (Katz-Gerro and Sullivan 2010). In addition, increasing income inequality poses obstacles for retirees in access to leisure activities (Scherger, Nazroo and Higgs 2011), especially for retired women, and highlights the differences in leisure patterns among population groups. However, research findings have revealed that the gender gap in leisure activity participation is also affected by the government's expenditure for welfare as well as by levels of the Gross Domestic Product (GDP) (Van Ingen and Van der Meer 2011; Van Tuyckom 2011). Notably, increased welfare expenditures can reduce the level of gender inequality with respect to access to recreational activities, because these expenditures usually benefit weaker populations, including women (Van Ingen and Van der Meer 2011).

Another relevant factor relates to the aspects that governments emphasise in formulating cultural policies. In this regard, differences between countries substantially affect the leisure patterns of individuals, not only through deep-rooted cultural perceptions but also through cultural policies which ultimately influence the lifestyles of individuals residing in each country (Katz-Gerro 2004; Van Tuyckom, Van de Velde and Bracke 2012). In this respect, countries tend to differ with regard to the aspects of culture that they emphasise. For example, in Italy, France and Germany, emphasis is placed on consumption of high culture and on preservation of the country's historical heritage, whereas there is almost no investment in modern culture (Zimmer and Toepler 1999). In the United Kingdom, however, emphasis is placed on consumption of art by the general population (Rasky and Peres 1996). This differential emphasis on consumption of culture leads to differences in individual cultural lifestyles. It can therefore be assumed that individuals from different countries will have different leisure patterns, and that in countries where the governmental expenditure on culture or welfare is high, there will be greater gender equality in access to leisure activities (Van Tuyckom, Van de Velde and Bracke 2012). Thus, participation in leisure activities may be related to the individual's background. For example, the finding that participation in high culture activities is related to high socio-economic resources as well as to women (Christin 2012; Katz-Gerro 2004) may suggest that government cultural policies can affect the leisure patterns of older people, and particularly older women.

The role of the country's policies

Pfau-Effinger (2005) has argued that the country's cultural focus is related to welfare policies. Since each country has a different cultural focus, differences between countries in their welfare policies will eventually be linked to the participation of individuals in leisure activities, and to gender differences in particular. In addition, the way economic policies are manifested in welfare policies also reflects the government's perceptions of gender and ageing. More specifically, welfare policies and economic policies can determine how profitable it is for women to participate in the labour force and what they do in their free time, as expressed in their ability to consume leisure (Van Tuyckom, Van de Velde and Bracke 2012). In addition, the differential impact of these policies on older people is reflected in the differences between family culture in Southern European countries, which are characterised by a high level of familism, *versus* North-Western European countries (Reher 1998), which have a more individualistic orientation. Thus, the level of familism, which is a facet of the welfare policy, affects not only the nature and type of leisure activity that retirees engage in, but also affects the level of support that the retirees receive from their families, and the level of support that they give to their families. In countries characterised by high levels of familism, where the needs of the family as a group take precedence over the needs of individual family members, elderly persons receive a higher level of support from their families than in countries characterised by high levels of individualism (Kalmijn and Saraceno 2008). However, women in such countries tend to have a less active role in the labour market, which reduces their financial independence. These factors can affect the time devoted to joint family activities as well as utilisation of available time. Thus, in countries characterised by high familism, many retirees, and women in particular, invest their free time in caring for their grandchildren as well as in other family activities. Hence, they do not necessarily participate in leisure activities, depending on the nature of the country's investment in cultural consumption. However, if people have enough time to participate in leisure activities in those countries, there are usually significant gender differences in the type of activity.

This highlights the importance of establishing a leisure policy, which should 'seek to promote those activities which are deemed, through political process which may or may not be contentious, to be socially beneficial and to restrict, or even prohibit, those activities deemed to be socially harmful' (Haworth and Veal 2004: 2). In other words, a leisure policy may reduce inequality in older people's participation in leisure activity, especially older women's participation. In fact, Bonke and Koch-Weser (2004) argued that policy makers need to take into account the

population's age distribution and know how to adapt cultural activities to relevant age groups. The existence of a leisure or cultural policy is important, since these policies can affect the extent to which a person's lifestyle depends on socio-economic status (Katz-Gerro 2006). In other words, in a capitalistic society characterised by social inequality, the existence of a leisure policy may reduce inequality in leisure consumption, because it can promote equal opportunities to participate in leisure and other cultural activities.

The current study

As mentioned, since participation in leisure activities is affected by cultural factors and gender, the study examined participation in three different types of leisure activities (*i.e.* sport or social clubs, educational courses and volunteering) among men and women from 11 European countries. These activities were chosen because they are regarded as universal, and are appropriate for men as well as women. However, participation in each activity might be related to personal factors (Katz-Gerro 2004) as well as to political and cultural factors (Haski-Leventhal 2009). In addition, these were the only activities in the SHARE database that can be regarded as leisure.

Although previous studies have claimed that women take a more active part in recreational activities (Ball *et al.* 2007; Janke, Davey and Kleiber 2006; Katz-Gerro 1999), when we focus on the three above-mentioned leisure activities, a different impression emerges. At the micro level, participation in sport club activities in older age is influenced by gender; that is, men participate more actively in these activities than do women (Berger *et al.* 2005; Son, Kerstetter and Mowen 2008; Van Tuyckom and Scheerder 2010). As for volunteer activity, the results are inconclusive. Some researchers have claimed that in older age, especially in retirement, gender does not significantly influence the likelihood of volunteering (Erlinghagen and Hank 2006; Hank and Erlinghagen 2009). In contrast, others have claimed that gender does influence the likelihood of volunteering, although there is a difference of opinion as to who volunteers more – men (Hackl, Halla and Pruckner 2012) or women (Thoits and Hewitt 2001). As for educational courses, the prevailing argument is that more women than men participate in these activities (Boulton-Lewis *et al.* 2007; Niederfranke 1992).

From the macro perspective, gender differences in leisure participation are affected by the national expenditure on welfare, and by the level of the GDP (Van Ingen and Van der Meer 2011; Van Tuyckom 2011): that is, an increase in these factors reduces the gender gap. Regarding

volunteering, the likelihood of volunteering is also influenced by other macro variables such as the extent of democratisation in the country, the extent of support for individuals mandated in government policies and the country's economic stability (Hackl, Halla and Pruckner 2012). However, Hackl, Halla and Pruckner (2012) also found that an increase in these factors, including welfare expenditure, actually reduces the likelihood of participating in leisure activities, especially among women, and increases inequality.

Given the continuous increase in life expectancy, and in light of evidence that in older age higher levels of wellbeing are related to one's ability to continue participating actively in society (Benyamini *et al.* 2011; Grant 2008; Riddick and Stewart 1994), there has been a growing emphasis on management of free time in late adulthood. Therefore, participation in leisure activities has become an increasingly important means of preventing or delaying a decline in general functioning (Silverstein and Parker 2002).

In addition, based on the literature review it can be assumed that participation in leisure activities is related to economic and cultural factors, which are influenced by various policies. In this regard, a key question is how the characteristics of a country are related to older men's and women's participation in leisure activities. Therefore, the purpose of the present study is to examine whether there are gender differences in each of the above-mentioned leisure activities in late adulthood, while controlling for macro variables.

Against this background, several hypotheses were tested.

- Hypothesis 1: At the micro level, there will be gender differences in participation in leisure activities: men will participate more actively in sport clubs, whereas women will participate more actively in educational courses; no gender differences will be found in participation in volunteer activities.
- Hypothesis 2: Retired men and women will participate more actively in leisure activities than those who are currently employed because they have more free time.
- Hypothesis 3: At the macro level, a higher GDP, which reflects the wealth of a country, will be related to greater participation in leisure activities (Van Tuyckom 2011).
- Hypothesis 4: In line with Van Ingen and Van der Meer's (2011) argument that an increase in a government's expenditure is usually directed at helping weaker populations, including women, it is hypothesised that higher national expenditure on welfare and on culture will be associated with a smaller gender gap in access to leisure activities.

Methodology

The database used in this study was taken from the first wave of SHARE, 2004/5. SHARE is a multidisciplinary panel database that includes data on a wide range of variables, from socio-economic variables to data on physical and health functioning as well as data on activities that people engage in during their free time (for more information on the method of data collection, see Börsch-Supan, Hank and Jürges 2005). After eliminating missing cases from the data on annual household income, occupational status, education and participation/non-participation in leisure activities, as well observations from Israel (due to methodological issues), the current research population consisted of 7,769 men and 9,337 women from 11 different European countries: Sweden, Denmark, the Netherlands, France, Germany, Belgium, Switzerland, Austria, Italy, Greece and Spain.

Three independent variables were used to measure participation in each of the following leisure activities:

- In the last month, have you gone to a sport, social or other kind of club? (dichotomous variable: 1 = yes, 0 = no).
- In the last month, have you attended an educational or training course? (dichotomous variable: 1 = yes, 0 = no).
- In the last month, have you done voluntary or charity work? (dichotomous variable: 1 = yes, 0 = no).

Because the correlations between the three activities were not high ($r = 0.10-0.15$, $p < 0.01$), it can be assumed that they are not interrelated.

At the micro level, the independent variables used were:

- *Age* (range 50–104 years). The cutoff was set at 50+, because most people still work at this age, and it is possible to compare employees with retirees.
- *Employment status* (a nominal variable: 0 = employee – the reference category, 1 = retiree, 2 = not working). The third category, not working, mainly included female home-makers. This category was based on research findings which have revealed that women who worked before retirement are much more satisfied with their leisure time than those who did not work before retirement (Pinquart and Schindler 2009).
- *Total annual household income* (measured in terms of Purchasing Power Parity (PPP); range 0–93, unit measurements €10,000).
- *Marital status* (married – the reference category, divorced, widowed, single).
- *Self-assessed health* (good+ = 1, fair and under = 0).
- *Number of children* (range 0–17).
- *Number of grandchildren* (range 0–23).
- *Years of schooling* (range 0–21).

TABLE 1. *Macro variables' correlations*

	GDP per capita (US \$, 2004)	Government expenditure on welfare as a percentage of GDP (2005)
Government expenditure on welfare as a percentage of GDP (2005)	0.145	
Government expenditure on recreation and culture as a percentage of GDP (2004)	0.378	0.239

Note: GDP: Gross Domestic Product.

Significance levels: no significant correlations.

At the macro level, the independent variables were derived from data published on the Organisation for Economic Co-operation and Development (OECD) website: *GDP* per capita in dollars in 2004 (the values of this variable were divided by 1,000, and ranged from 24 to 34.5); *government expenditure on welfare as a percentage of the GDP* in 2005 (range 20.2–30.1%); and *government expenditure on recreation and culture as a percentage of the GDP* in 2004 (range 0.3–1.8%). The correlation between these three variables is presented in Table 1 and the macro variables' characteristics by country and geographical areas are presented in Table 2. Table 3 presents the distribution of the variables by gender. All figures are weighted.

A clustered-robust logistic regression model was used to estimate participation in each type of activity: sport or social clubs, educational courses and volunteering. This regression is similar to standard logistic regression, except that robust standard errors are estimated to compensate for the potential correlations between observations within clusters (11 countries), which may result in heteroscedastic error terms (Williams 2003). That is the observations are clustered into countries, so that they may be correlated within the countries but are independent between countries. Table 5 presents the results of each regression and Table 6 presents the Wald test results for each model. These results indicate that the models are significant, so that each model is gender independent. However, because gender differences may be related to differences in personal characteristics, and because macro variables may have a hidden influence on them, a Blinder–Oaxaca decomposition model was used to estimate each activity (Blinder 1973; Oaxaca 1973). This model is widely used to examine mean outcome differences between groups. It divides the differential in the dependent variable between two groups into two parts: one part that is explained by group differences in observed characteristics;

TABLE 2. *Macro variables' characteristics*

Country	GDP per capita (US \$, 2004)	Government expenditure on welfare as a percentage of GDP (2005)	Government expenditure on recreation and culture as a percentage of GDP (2004)	Frequency	Valid percentage
North-Western					
Europe:					
Austria	32,598	27.1	1.0	1,184	6.9
Belgium	31,152	26.5	1.3	2,543	14.9
Germany	29,901	27.3	0.8	1,477	8.6
Denmark	32,301	27.7	1.8	1,144	6.7
France	28,195	30.1	1.4	1,778	10.4
Sweden	32,506	29.1	1.0	1,877	11.0
Switzerland	34,537	20.2	0.9	631	3.7
The Netherlands	33,209	20.7	1.5	1,557	9.1
Southern					
Europe:					
Greece	24,088	21.1	0.3	2,000	11.7
Italy	27,416	24.9	0.9	1,662	9.7
Spain	25,958	21.1	1.4	1,253	7.3
Mean (SD)	30,160 (3,333)	25.1 (3.66)	1.1 (0.41)	17,106	100

Notes: GDP: Gross Domestic Product. SD: standard deviation.

Source: Organisation for Economic Co-operation and Development StatExtracts (stats.oecd.org).

and a residual part that cannot be accounted for by these differences in the dependent variable, and is therefore explained by differences in the estimated coefficients. The second part is often used as a measure of discrimination, but also subsumes the effects of group differences in unobserved predictors (Jann 2008; Sinning, Hann and Bauer 2008). However, because the dependent variable is binary, the current study used an extension of the Blinder–Oaxaca decomposition to nonlinear regression models, which was developed by Oaxaca and Ransom (1994) and further expanded by Bauer and Sinning (2008). For each activity, the decomposition was estimated in two steps. In the first step, the decomposition procedure took into account only the micro variables. In the second step, the decomposition included both micro and macro variables, which revealed the effect of the macro variables on the gender gap in leisure activity participation and its components. All analyses were estimated using the ‘nldecomposition’ command in Stata (version 11), which was adjusted for the 11 country clusters. Table 7 presents the results of each decomposition model.

TABLE 3. *Micro variables' characteristics (dependent and independent), weighted*

	Women	Men
	<i>Mean values and percentages (SD)</i>	
Going to sport or social club: % yes*	14.9 (0.36)	19.8 (0.4)
Participating in an educational course: % yes	4.9 (0.21)	5.2 (0.22)
Volunteering: % yes*	10.7 (0.31)	13.0 (0.34)
Mean age*	65.4 (10.28)	63.6 (9.44)
Health perception: % good+*	62.7 (0.48)	71.5 (0.45)
Mean number of children	2.2 (1.5)	2.1 (1.4)
Mean number of grandchildren*	2.9 (3.4)	2.1 (2.9)
Mean years of schooling*	8.9 (4.8)	10.2 (4.9)
Mean household annual income (PPP)/€10,000*	3.6 (4.4)	4.1 (4.7)
Occupational status (%):		
Retiree*	45.0 (0.5)	59.9 (0.49)
Employee*	21.8 (0.32)	35.4 (0.33)
Not working*	33.2 (0.47)	4.7 (0.21)
Marital status (%):		
Married*	58.2 (0.5)	79.1 (0.41)
Divorced*	7.9 (0.27)	6.7 (0.25)
Widowed*	27.7 (0.25)	6.6 (0.25)
Single	6.2 (0.24)	7.6 (0.26)
N (weighted)	35,772,418	29,173,614
N (unweighted)	9,337	7,769

Notes: SD: standard deviation. PPP: Purchasing Power Parity.

Significance level: * $p < 0.05$ according to t -test and χ^2 proportion test (depends on the variable type).

Results

Table 2 presents the descriptive results of the macro variables by country. The mean GDP per capita was \$30,160. By comparison, the mean GDP per capita for all European countries was \$28,097 in the same year (OECD 2011). The mean government expenditure on welfare was about 25 per cent of the GDP per capita, whereas the mean government expenditure on recreation and culture was about 1 per cent. In addition, Table 2 reveals that there are substantial differences between the countries regarding their expenditure on recreation and culture. For example, whereas the expenditure on recreation and culture in Greece amounted to only 0.3 per cent of the GDP, the expenditure on recreation and culture in Denmark amounted to 1.8 per cent, *i.e.* it was six times higher than the expenditure in Greece.

Table 3 presents the weights of the dependent and independent variables. The mean age of the participants in the sample was 64 for men and 65 for women. In addition, men's state of health was better, and they

TABLE 4. *t*-Test for leisure participation rates according to countries and geographical areas, divided by gender, weighted, 2004

	Going to a sport or social club		Participating in an educational course		Volunteering		N (weighted)	
	Men	Women	Men	Women	Men	Women	Men	Women
	<i>Percentages</i>							
North-Western Europe:								
Austria	20.5***	9.7	5.2***	4.2	11.9***	7.7	703,747	888,393
Belgium	27.9***	19.6	9.1***	10.5	19.7***	17.4	1,171,626	1,421,656
Germany	30.1***	21.3	8.5***	5.1	16.0***	10.2	6,629,277	8,214,357
Denmark	34.6***	33.4	9.9***	10.4	20.2***	18.1	623,168	705,226
France	20.1***	19.5	4.7***	3.4	18.8***	13.8	5,578,505	7,035,955
Sweden	26.9***	24.1	11.8***	15.2	22.6***	15.8	997,218	1,120,467
Switzerland	39.8***	30.7	18.6***	19.7	14.3***	16.5	767,005	942,327
The Netherlands	30.6***	29.5	7.2***	8.4	20.5***	24.8	1,407,821	1,668,639
Southern Europe:								
Greece	9.1***	2.0	4.3***	3.7	3.1***	2.9	1,378,209	1,645,945
Italy	9.6***	3.3	0.5***	1.6	8.1***	8.1	6,275,729	7,845,749
Spain	6.4**	6.4	1.5***	3.7	2.1***	3.8	3,690,155	4,323,352

Significance levels: ** $p < 0.05$, *** $p < 0.001$.

TABLE 5. *Clustered robust logistic regressions – participate in three leisure activities, divided by gender, 2004*

	Going to a sport or social club				Participating in an educational course				Volunteering			
	Women		Men		Women		Men		Women		Men	
	<i>B</i>	OR	<i>B</i>	OR	<i>B</i>	OR	<i>B</i>	OR	<i>B</i>	OR	<i>B</i>	OR
Age	-0.005 (0.006)	0.995	-0.023 (0.003)	0.978***	-0.040 (0.008)	0.961***	-0.051 (0.014)	0.950***	-0.028 (0.005)	0.972***	-0.023 (0.006)	0.977***
Occupational status: retiree	0.013 (0.126)	1.013	0.308 (0.069)	1.361***	-0.500 (0.248)	0.606**	-0.333 (0.254)	0.717	0.721 (0.096)	2.057***	0.399 (0.182)	1.490**
Occupational status: not working	0.021 (0.122)	1.021	-0.146 (0.125)	0.864	-0.530 (0.246)	0.589**	-0.372 (0.247)	0.689	0.469 (0.113)	1.598***	0.310 (0.235)	1.363
Household annual income (PPP)/ €10,000	0.007 (0.010)	1.007	0.012 (0.010)	1.012	-0.015 (0.017)	0.985	0.002 (0.010)	1.002	0.013 (0.007)	1.013	0.016 (0.008)	1.016**
Marital status: married	0.209 (0.120)	1.232	0.364 (0.201)	1.439	-0.452 (0.228)	0.636**	-0.124 (0.294)	0.883	0.044 (0.206)	1.045	0.092 (0.129)	1.097
Marital status: divorced	0.185 (0.144)	1.203	0.463 (0.206)	1.589**	-0.311 (0.270)	0.733	-0.161 (0.270)	0.851	0.133 (0.191)	1.142	-0.074 (0.225)	0.928
Marital status: widowed	0.250 (0.095)	1.284**	0.318 (0.263)	1.374	-0.296 (0.192)	0.744	-0.412 (0.512)	0.662	0.124 (0.160)	1.132	-0.271 (0.214)	0.763
Health perception: good+	0.396 (0.092)	1.486***	0.294 (0.105)	1.341**	0.405 (0.108)	1.500***	0.753 (0.213)	2.123***	0.312 (0.065)	1.366***	0.444 (0.103)	1.558***
Number of children	0.021 (0.023)	1.021	-0.068 (0.025)	0.935**	0.114 (0.036)	1.121**	-0.054 (0.055)	0.948	-0.008 (0.037)	0.992	0.024 (0.033)	1.024
Number of grandchildren	-0.012 (0.013)	0.988	0.016 (0.013)	1.016	-0.036 (0.025)	0.965	0.029 (0.022)	1.029	0.026 (0.017)	1.026	0.048 (0.012)	1.049***
Years of schooling	0.083 (0.019)	1.086***	0.057 (0.016)	1.059***	0.152 (0.015)	1.164***	0.133 (0.019)	1.143***	0.084 (0.009)	1.087***	0.099 (0.010)	1.104***
Government ex- penditure on welfare as a per- centage of GDP	0.041 (0.025)	1.042	0.023 (0.014)	1.024	0.010 (0.033)	1.010	0.045 (0.030)	1.046	0.011 (0.030)	1.011	0.077 (0.031)	1.080**

TABLE 5. (Cont.)

	Going to a sport or social club				Participating in an educational course				Volunteering			
	Women		Men		Women		Men		Women		Men	
	<i>B</i>	OR	<i>B</i>	OR	<i>B</i>	OR	<i>B</i>	OR	<i>B</i>	OR	<i>B</i>	OR
Government expenditure on culture and recreation as a percentage of GDP	0.797 (0.303)	2.219**	0.100 (0.196)	1.105	-0.300 (0.309)	0.741	-0.544 (0.291)	0.580	0.683 (0.289)	1.980**	0.450 (0.285)	1.568
GDP per capita (US \$)	0.171 (0.043)	1.186***	0.152 (0.027)	1.164***	0.150 (0.045)	1.162**	0.158 (0.048)	1.171**	0.107 (0.042)	1.113*	0.110 (0.039)	1.116**
Constant	-9.85*** (1.28)		-6.4*** (0.93)		-5.92*** (1.58)		-6.68** (2.03)		-6.17*** (1.28)		-8.14*** (1.30)	
Pseudo R^2	0.100		0.062		0.151		0.122		0.07		0.081	
Log likelihood	-3,892.12		-3,934.16		-2,129.46		-1,730.01		-3,325.74		-2,980.12	
N	9,337		7,769		9,337		7,769		9,337		7,769	

Notes: Adjusted for 11 country clusters. OR: odds ratio. GDP: Gross Domestic Product. PPP: Purchasing Power Parity.

Significance levels: ** $p < 0.05$, *** $p < 0.001$.

TABLE 6. Wald tests for gender coefficients differences in each activity

	Going to a sport or social club	Participating in an educational course	Volunteering
	<i>Chi-squared values</i>		
Age	10.9***	1.33	0.44
Occupational status: retiree	8.4**	1.1	5.0**
Occupational status: not working	0.8	0.5	0.5
Household annual income (PPP)/ €10,000	0.2	1.5	0.3
Marital status: married	0.6	1.7	0.1
Marital status: divorced	1.2	0.3	1.1
Marital status: widowed	0.1	0.1	5.3**
Health perception: good+	1.2	1.8	1.1
Number of children	9.6**	12.3***	0.5
Number of grandchildren	3.0	9.4**	1.4
Years of schooling	2.6	1.1	12.1***
Government expenditure on welfare as a percentage of GDP	0.9	6.5**	133.4***
Government expenditure on culture and recreation as a percentage of GDP	8.7**	1.5	55.3***
GDP per capita (US \$)	0.5	0.1	0.3
Model	170.1***	50.0***	2,028.1***

Notes: GDP: Gross Domestic Product. PPP: Purchasing Power Parity.

Significance levels: ** $p < 0.05$, *** $p < 0.001$.

had higher levels of education and income than women. Moreover, 79 per cent of men were married, whereas only 58 per cent of the women were married and 28 per cent were widowed (compared to only 7% of the men). Regarding occupational status, the percentage of men in the employee (60%) and retiree (35%) categories were higher than the percentage of women, whereas the percentage of women was higher in the not-working category (33%). Finally, Table 3 shows that men's rates of participation in sport clubs, educational courses and volunteering were higher than the rates for women. However, the gender differences with regards to rates of participation in educational courses were not significant. Table 4 shows gender differences in the rates of participation in each activity by country. Although men's rate of participation in sport clubs was higher than the rate of women in all countries, the gender gap in volunteering and educational courses varied in the different countries. For example, in Switzerland, Spain and the Netherlands, the rates of participation in volunteer activity and educational courses were higher for women than men. However, in Sweden, Denmark and Belgium, higher rates of participation for women were found only with regard to educational courses. In addition, the findings indicate that for both men and women, rates of participation in

all three activities were lower in Southern European countries than in the North-Western European countries.

Clustered-robust logistic regression

Participation in sport and social clubs. Table 5 presents the estimated clustered-robust logistic regressions for each activity among men and women. The contribution of most of the variables to the likelihood of participating in each activity was different for men and women (see also the Wald test results in Table 6). First, regarding the micro variables, the findings revealed that in contrast to women, when men get older the likelihood of participating in sport or social clubs declines by 2 per cent (or a decrease in the log-odds by -0.005). In addition, the likelihood that retired men will participate in sport clubs was found to be 36 per cent higher than the likelihood for employed men (confirming Hypothesis 2). In contrast to men, occupational status was not found to influence the likelihood of participating in sport club activities for women. A possible explanation for these two findings is that, in general, men are more active in sports activities than women (Van Tuyckom and Scheerder 2010). Hence, they participate more in sport clubs than women, a pattern that is reproduced in retirement. In addition, a larger number of children was found to decrease the likelihood of men's participation in sport clubs by 7 per cent. This finding might indicate that men are more sensitive to family factors in the use of their free time than women, who are already accustomed to taking care of the family and home so that a larger number of children does not have a significant impact on their use of free time. This explanation is also consistent with the results regarding educational courses. As shown in the next section, the findings revealed that the more children a woman has, the more likely she is to study.

Finally, self-assessed health and years of schooling were found to contribute significantly to the likelihood of participating in sport club activities, for men as well as women. In fact, these variables were positively associated with all three activities for men as well as for women. That is, the more educated and healthy a person is, the greater the likelihood of participating in leisure activities. This finding is consistent with the results of other studies (e.g. Berger *et al.* 2005; Hackl, Halla and Pruckner 2012).

Participation in an educational course. Regarding participation in educational courses, the findings revealed that the likelihood of studying decreases with age among men and women. In addition, Table 5 shows that both retired and not-working women are less likely to participate in an educational course than employed women (failing to confirm

Hypothesis 2). The findings also indicate that the likelihood of participating in an educational course is 12 per cent greater for women with more children. It is possible that at this life-stage, when children are older, many women seek to compensate for the years they took care of their children and did not have time to study (Gutmann 1975). This explanation is bolstered by the fact that women's participation in the other two activities, *i.e.* sport clubs and volunteering, were found to be higher (Table 3), and the results clearly show that their participation in those activities was not affected by the number of children and grandchildren. That is, the contribution of children to the likelihood of studying may indicate that the women had not achieved this goal in the past.

Volunteering. Finally, as for volunteering, here again both men and women were less likely to participate in this activity as they grew older. In fact, the likelihood of participating in any of the three above-mentioned activities was found to decrease, especially among men. Moreover, the results show that both retired men and women were more likely to volunteer than their employed counterparts (retired men were 50% more likely and retired women were 100% more likely). Similar findings were revealed for employed women *versus* non-working women (confirming Hypothesis 1, and partially confirming Hypothesis 2).

Macro effects. An increase in annual household income increased the probability that men will volunteer by almost 2 per cent. In addition, an increase in government expenditure on welfare was also found to increase the likelihood that men will volunteer by 8 per cent. These results may be related to each other, and indicate that the likelihood of men volunteering is mainly affected by economic factors. That is, it appears that men are more inclined to volunteer when their annual household income is higher and when the government expenditure on welfare is higher. However, in contrast to women's participation in volunteer activity, men's participation is not affected by the government's expenditure on culture.

The macro results show an interesting phenomenon: whereas an increase in GDP level was found to be positively associated with the likelihood of participating in any one of the three above-mentioned activities for both men and women, an increase in government expenditure on recreation and culture was significantly associated only with the likelihood of women's participation in sport club activities (98% greater) and volunteering (122% greater). That is, contrary to Hypothesis 3, it appears that the GDP level is more of an indicator of the variety of leisure activities than a tool for reducing the gender gap in these activities. However, consistent with Hypothesis 4, in contrast to the GDP level, government expenditure on recreation and

culture is a more significant tool for reducing the gender gap because the government can actually decide how to allocate funds. Contrary to these results, for both men and women the likelihood of participating in an educational course was associated only with GDP level, probably because the rates of participation in this activity were almost equal for both genders (partially confirming Hypothesis 4). In other words, the country's characteristics have a significant impact on the likelihood of participating in leisure activities for both men and women (Van Ingen and Van der Meer 2011; Van Tuyckom and Scheerder 2010; Van Tuyckom, Van de Velde and Bracke 2012).

Since the government expenditure on welfare and culture affects men's and women's participation in leisure activities differently, it is reasonable to assume that a country can encourage different populations to participate in leisure activities by increasing or decreasing these expenditures (Van Tuyckom and Scheerder 2010); that is, the GDP level linked with higher rates of participation in activities among men and women (Van Tuyckom 2011), so that the gender gap within the country was not affected. However, the government's decision on the percentage of GDP that will be allocated to culture and recreation has become an increasingly relevant factor affecting men's and women's participation in leisure activities. Nevertheless, because gender differences are usually associated with unobserved predictors such as differential preferences for leisure activities or other environmental influences, there is a need for further examination of these results in order to determine whether the reduction in the gender gap can be attributed to government expenditures.

Blinder–Oaxaca decomposition

Table 7 presents the non-linear Blinder–Oaxaca decomposition results regarding gender gaps in leisure activity participation (Blinder 1973; Oaxaca 1973; Oaxaca and Ransom 1994; Sinning, Hann and Bauer 2008). First, like the results in Table 3, the results in this table reveal a significant gender gap in volunteering and participation in sport clubs, with higher rates for men. In the first model, the results show that the gender gap in participation in club activities can be attributed mainly to differences in socio-demographic characteristics (51% for women and 66% for men). In other words, when only the micro variables were taken into account, the gender differences in participation rates were associated with observed variables such as age, education and marital status. In addition, the results show that regarding women, 49 per cent of the gender gap differential could be significantly attributed to differences in the coefficients, that is, differences in the unobserved predictors. Another way to decompose the

TABLE 7. *Oaxaca–Ransom decomposition of the men/women leisure participation differential*

	Going to a sport or social club				Participating in an educational course				Volunteering			
	Coefficient		Percentage		Coefficient		Percentage		Coefficient		Percentage	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Men:												
Differences in characteristics	0.034***	0.030***	66	58	0.018***	0.017***	479	459	0.027***	0.026***	110	105
Differences in coefficients	0.018	0.022	34	42	-0.014***	-0.013**	-379	-359	-0.002	-0.001	-10	-5
Women:												
Differences in characteristics	0.027***	0.017**	51	32	0.016***	0.016***	432	426	0.011**	0.007	43	27
Differences in coefficients	0.025**	0.035***	49	68	-0.012**	-0.012	-332	-326	0.014	0.018	57	73
Gender differences due to different preferences	0.031***	0.023***	59	45	0.014***	0.014***	384	365	0.017***	0.013***	69	53
Advantage of men	0.012**	0.016***	23	31	-0.006**	-0.005**	-157	-146	0.004	0.006	17	26
Disadvantage of women	0.010**	0.013***	18	25	-0.005**	-0.004**	-127	-118	0.003	0.005	14	21
Observed differences	0.052***		100		0.004		100		0.024**		100	

Significance levels: ** $p < 0.05$, *** $p < 0.001$.

gender participation gap is to divide it into three components (Oaxaca and Ransom 1994). The first component reveals that 59 per cent of the gender gap in participation in club activities could be attributed to differences in leisure opportunities (the observed part); the second component reveals that if we set the structure of men's leisure opportunities as the standard, 18 per cent of the gender gap differential can be attributed to women's lower participation rates. On the contrary, if the structure of women's leisure opportunities is set as the standard, 23 per cent of the gender gap differential in participation in sport club activities can be attributed to men's higher participation rates (the unobserved parts).

After adding the macro variables to the decomposition, the results show a significant increase in the attribution of unobserved predictors for women only. That is, the macro variables significantly reduced the gap attributed to variables such as age, marital status or education. In addition, the part that was attributed to differences in leisure opportunities decreased by 14 per cent; that is, the macro variables decreased men's opportunities for participation in sport club activities, so that women gained an advantage and the gender gap differential caused by the observed variables was reduced. Concomitantly, both the advantage of men and the disadvantage of women due to the unobserved predictors were increased, thereby increasing the gender gap differential caused by these variables.

The decomposition of participating in an educational course shows that all of the predicted gender differences can be attributed to differences in characteristics, even when adding the macro variables. Thus, women have almost five times more opportunities to study than men. Since the differences in coefficients were negative, the results indicate that women had a relative advantage over men in the unobserved predictors, which may have been expressed as a preference over men for participation in educational courses. Regarding the decomposition of volunteering, the findings show that both men and women were mainly influenced by the observed predictors. However, although it appears that the macro variables did not significantly change the results for each gender, they significantly decreased the gender gap that can be attributed to differences in leisure opportunities by 16 per cent. In other words, the gender differences in volunteering can be attributed to the observed predictors, whereas the macro factors contributed to reducing the gender gap caused by these predictors.

Conclusion

The current study aimed to explore whether there are gender differences in leisure patterns among people aged 50 and above, and whether patterns of

participation in leisure activities are further influenced by one's country of residence. The results of clustered-robust logistic regressions revealed gender differences not only in the likelihood of participating in leisure activities but also in the variables that influence participation in these activities. At the micro level, besides the variables that had a consistent effect on leisure activity (e.g. years of schooling, age and health), there were also variables that had a differential effect on specific leisure activities or a differential effect on the leisure participation of men *versus* women (e.g. number of children and occupational status). In addition, it seems that men participated more actively than women in all three types of leisure activities, a finding that contradicts the results of previous studies which argued that women's participation rates in leisure activities are higher than men's (Ball *et al.* 2007; Hackl, Halla and Pruckner 2012; Janke, Davey and Kleiber 2006; Katz-Gerro 1999). However, it is noteworthy that these studies examined leisure activities that were not addressed in the current study. The Blinder–Oaxaca decomposition model reinforces the above conclusion, and shows that the micro variables alone explained a major part of the gender gap in participation, mainly for activities in which most of the participants were men.

Regarding the macro variables, the results revealed that government expenditure on culture and recreation as a percentage of the GDP was only associated with women's likelihood of participating in sport or social clubs and volunteering. In addition, the current study found that although the GDP level was positively associated with both men's and women's rates of participation in leisure activities, it did not reduce the gender gap within the country; that is, it only reduced general inequality in leisure activity participation between countries. However, government expenditure on culture and recreation, which is determined by each specific country, was significantly associated not only with the likelihood of participating in a given leisure activity, but also significantly reduced the gender gap in leisure activity participation in older age. In other words, there is a connection between the participants' country of residence and reducing the gender gap in leisure participation that is connected to the observed predictors. Since the country's expenditure on culture and recreation is measured as a percentage of the GDP, the results suggest that in order to reduce the gender gap, the level of GDP does not necessarily need to be high. Rather, it is the portion of the GDP that is allocated for culture and recreation that affects the gender gap. From that point of view, there is not a clear distinction between North-Western European countries and Southern European countries. The effect of these macro variables on the gender gap was further emphasised by the results of Blinder–Oaxaca decomposition, which revealed that with regard to participation in sport club activities and volunteering, the addition of the macro variables reduced the gender gap in the observed predictors. In other words, the

macro variables were found to contribute to reducing the gender gap in leisure activity participation, and higher expenditures resulted in greater gender equality in leisure activity participation. These findings are supported by other studies which revealed that participation in leisure activities must take into account macro-level analysis (Bosdriesz *et al.* 2012; Van Tuyckom 2011), and that the more the egalitarian the country, the more gender equality there is in leisure activity participation (Van Tuyckom, Scheerder and Bracke 2010; Van Tuyckom, Van de Velde and Bracke 2012). However, because the decomposition model examines all the macro variables together, it cannot be conclusively determined whether the government expenditure on culture and recreation is actually the cause of gender equality in leisure activity participation, or whether participation in leisure activities is determined by the macro variables as a whole. Nevertheless, in light of the results of the clustered-robust logistic regressions, it can be reasonably assumed that the expenditure on culture and recreation is a major factor that contributes to reducing the gender gap in participation in the above-mentioned leisure activities in older age.

Limitations

Some limitations of the current study should be mentioned. First, the analysis was based on cross-sectional data and hence its conclusions are restricted. Second, the current study examined only three representative leisure activities, whereas nowadays older adults can participate in a broad range of leisure activities. In addition, the study only examined dynamic leisure activities that involve leaving the home. It also should be noted that although the macro data were obtained from the OECD website, the measure of government expenditure on culture and recreation is not uniform, and each country included different factors in its expenditure (unlike the measures of the GDP or government expenditure on welfare, which are calculated by specific criteria). Moreover, because the current research used the government expenditure on culture and recreation as a percentage of GDP, it is possible that the results would be different if they related to actual amounts. Finally, it should also be mentioned that leisure activities have many psychological aspects that could affect the results, but that could not be tested directly in this type of study.

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