

# **Relation of spirituality to happiness, life satisfaction and sustainable lifestyles**

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## **1. Introduction**

Spirituality impacts our life in both material and non-material ways

Nursing and medical journals show high coverage of the impact of the spiritual beliefs of the patient on his or her healing prospects and life expectancy. Thus spirituality has direct impacts on our physical wellbeing. On the other side spirituality does have impact on our subjective wellbeing. Several surveys presented evidence that religious people are happier and more satisfied than those who don't believe in a supreme power.

Thus we can suppose that spirituality also have some impact on our environmental beliefs and ecological impacts. The purpose of this article is to explore links between spirituality and ecological impacts both theoretically and in an empirical way.

## **Ecological consequences of strictly and broadly defined spirituality**

Spirituality can be defined in strict or broader terms. Both definitions might have consequences on our interrelationship with our natural environment as well as on our ecological footprint. This paper will reveal how this interrelationship can be defined according to these definitions, what kind of impacts can be assumed and test the theory by empirical research.

We will test the hypothesis that both strictly defined and broadly defined spirituality leads to reduced level of ecological footprint.

Bouckaert and Zsolnai (2011) use the concept of spirituality as defined by the European SPES (Spirituality in Economics and Society) Forum: "Spirituality is people's multiform search for a deep meaning of life, interconnecting them to all living beings and to 'God' or 'Ultimate Reality'... In other words, spirituality is a search for inner identity, connectedness and transcendence" (p. 7). According to Mitroff and Denton the „spirituality includes (at least) two necessary elements. First, spirituality is the desire or need to find meaning and purpose in

one’s life in order to live an integrated life. And second, spirituality includes the belief in a supreme power, a being, or a force that controls the entire universe.”

Strictly defined spirituality might lead to reduced ecological impacts through decreasing the urge individuals feel for consuming more and for following the trends dictated by mass marketing. With an integrated life with purpose and meaning, increasing material wealth might sound less desirable. Individuals don’t need to show their material wealth in order to justify their status and importance in the society. Thus indirect linkage might be supposed between spirituality and ecological impacts.

Spirituality is a frequently used in broader terms than what’s given by Mitroff and Dentonthe. For example Tanyi (2002, p. 506) “Spirituality is a personal search for meaning and purpose in life, which may or may not be related to religion. It entails connection to self-chosen and or religious beliefs, values and practices that give meaning to life, thereby inspiring and motivating individuals to achieve their optimal being. This connection brings faith, hope, peace, and empowerment. The results are joy, forgiveness of oneself and others, awareness and acceptance of hardship and mortality, a heightened sense of physical and emotional well-being, and the ability to transcend beyond the infirmities of existence.”

In this sense belief in environmental values and the feeling of inclination to act in an environmentally pro-active way is a kind of „spirituality” even when the belief f in a supreme power is missing.

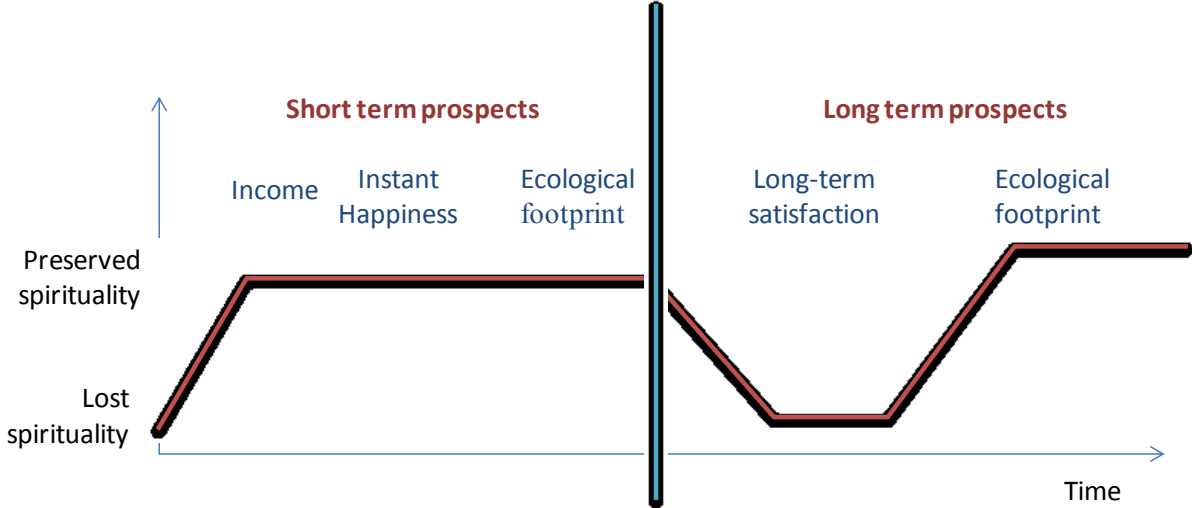


Figure 1: Short term and long term prospects of losing spirituality

Spirituality might cross the short term pretension for higher income, but losing spirituality crosses the prospects for increasing long-term life satisfaction and reduced pace of ecological degradation.

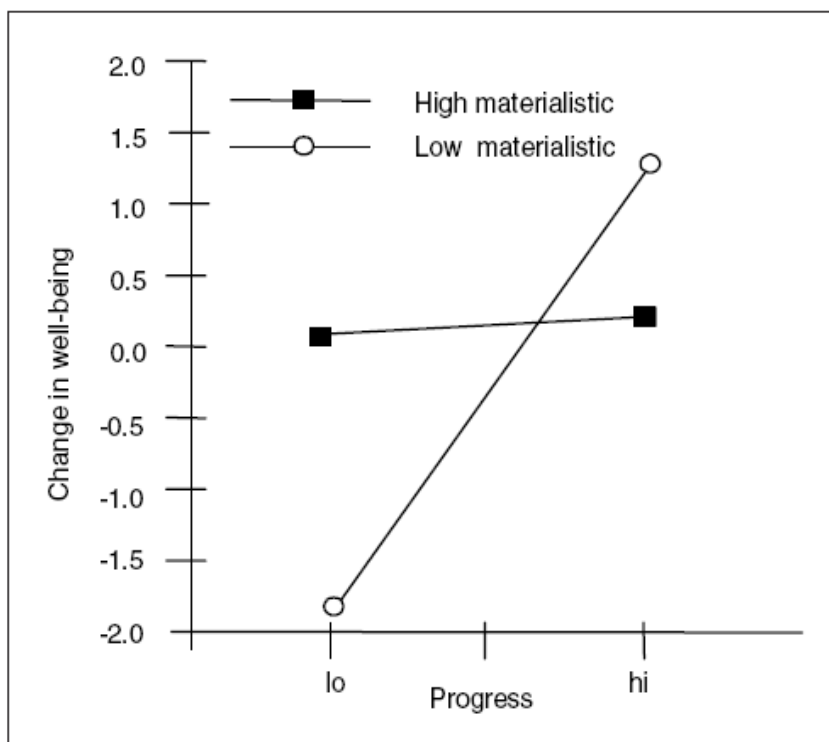
This paper assumes that spirituality, whether it is meant in strict or broader terms, contributes to long term subjective wellbeing and decelerates the pace of ecological degradation. Our purpose is to test this statement by empirical research as well as against scientific literature. At first, we will give an overview of the literature on happiness, life satisfaction and spirituality. Then we will present the findings of an empirical survey carried out in Hungary in 2010.

## **2. Literature review on happiness, life satisfaction and spirituality**

As consumer society started to flourish and the GDP has shown a constantly increasing tendency in several countries, the issue has become more and more relevant to what extent wealth creation contributes to the well-being, happiness and life satisfaction of people. The original purpose behind providing material wealth to nations was to establish happy societies.

Easterlin (1973) however, points out that average national happiness has remained constant over time despite sharp rises in GDP per capita in the US. At the same time, positive correlations between individual income and individual happiness could be found at micro level (for a comprehensive summary of findings see Oswald, 1997). Several explanations were given by several economists to this phenomenon (for a review of theories see Easterlin, 2001). Veenhoven and Hagerty (2006) found that a “happiness had increased slightly in rich nations and considerably in the few poor nations for which data are available” (p. 421). Bjørnskov et al. (2008, p. 317) state that “while current GDP growth does not affect trends in well-being, accelerations in GDP growth do. In addition, faster GDP growth and faster growth of government consumption than in neighbouring countries induces positive trends in life satisfaction”. Their findings are consistent with the predictions of aspirations theory or the theory of reference group comparisons (Veenhoven 1991 provides a review of related theories). Headey et al. (2008) state that happiness is considerably more affected by economic circumstances than previously believed while Downie et al. (2007) analyse the role of political support for self-determination and wealth in national subjective well-being. Cultural features like individualism versus collectivism, independent versus interdependent self-concept further shape the picture (Kim et al. 2003). The dispute is still going on.

At the same time, psychologists warn about the faintness of that relationship, although acknowledge the presence of the interrelation (Kasser & Ryan, 1996, 2001, Nickerson et al. 2003). Kasser et al. (1995), Kasser and Ryan (1996), as well as Ryan et al. (1999) claim that intrinsic goals and motivation reveal a higher level of well-being than extrinsic drivers (see also Rijavec et a. 2006). They also point out the possible destructive nature of financial goals. Income and financial goals belong to extrinsic goals. In a large sample representative empirical survey Martos and Kopp (2012, p.566) found that while the orientation toward extrinsic goals may contribute to the present mood and satisfaction, they may bring along personal costs in the long run. In case of „meaning of life”, importance of negative aspirations proved to be a negative predictor of happiness. In contrast, the pursuit of intrinsic life goals may indiscriminately support well-being. Kasser (2002) found a clear relationship between the “nature” of goals and the change in well-being (see Figure 1).



**Figure 1: Changes in well-being as a function of the progress in materialistic and non-materialistic goals (Kasser, 2002)**

Progress in highly materialistic goals evokes almost invisible positive changes in subjective well-being, while the same progress in immaterial goals results in an enormous positive shift.

Happiness economics, the psychological theory of subjective well-being and the economics of ecological services are popular scientific streams, not properly linked together yet. Our former

research (Csutora 2012) serves evidence that such a link is meaningful and may provide interesting insights and findings. The indicators of income and social well-being must be complemented, though, with ecological footprint (Wackernagel et al., 2004). The essential question for sustainable consumption is the dependence of subjective welfare on ecological footprint rather than on mere income. Interrelationship among the three indicators must be revised and tested (for the first test see Csutora 2012).

Pro-environmental behaviour is sometimes used as a proxy for sustainable consumption. Brown and Kasser (2005) studied the link between ecologically responsible behaviour and subjective well-being. They found that people living according to voluntary simplicity principles have lower ecological footprint and higher level of life satisfaction. Their sample was, however, very limited and specific (200 middle- and high school Caucasian students in the US). Their results have shown the *intrinsic value orientation* being responsible for increased level of life satisfaction (see also above). Veenhoven (2004, p.1) suggested that “a shift to sustainable consumption involves a minor reduction in happiness, at least, temporarily, but that we can live quite happily without that luxury“. He found that heavy energy users were happier in the Netherlands, however, he admitted that the association between the two variables proved to be weak with high variance. Csutora (2012) found that although “green” consumers not necessarily show up a reduced footprint compared to “brown ones”, the former are definitely happier than the latter. Thus green consumption may indirectly increase the subjective well-being per footprint ratio as it contributes to the increase of subjective well-being at an assumed level of footprint. The discussion, however, halted with this single statement and did not go further in analysing the link between life satisfaction, happiness and consumption patterns. Life goals and values do matter, resulting in varying levels of happiness with the same level of ecological footprint.

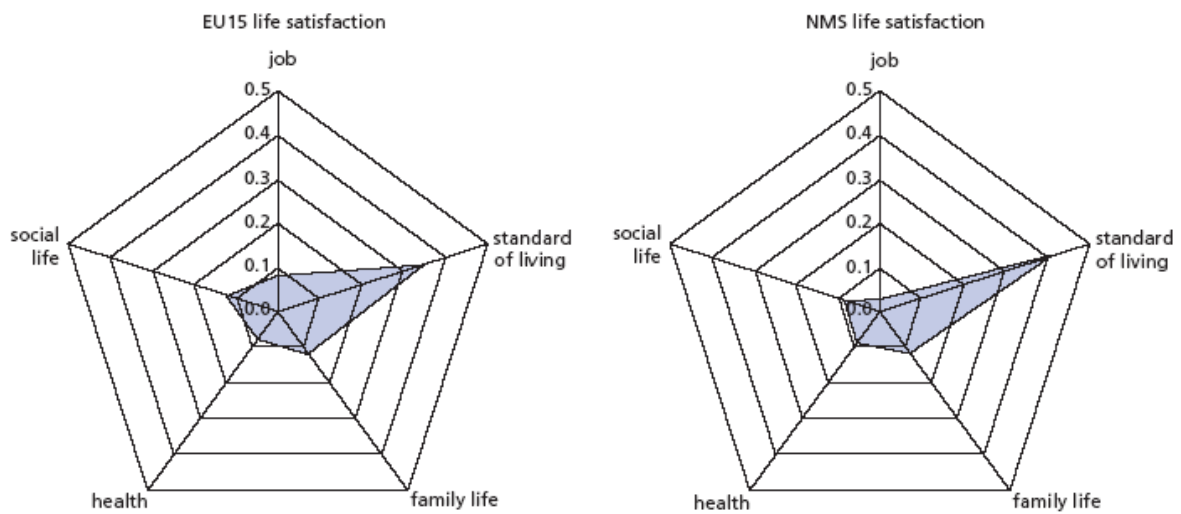
Bouckaert and Zsolnai (2011) call for a values-driven economy which has its basis in spirituality (the concept of “spiritual economy” is elaborated by Zsolnai 2011). According to Zsolnai 2010 (p.2) “empirical evidence suggests that spiritual experiences help the person to transcend his or her narrow self-conception and enable him or her to exercise genuine empathy with others and to take an all-compassing perspective”. Bouckaert and Zsolnai (2011) use the concept of spirituality as defined by the European SPES (Spirituality in Economics and Society) Forum: “Spirituality is people’s multiform search for a deep meaning of life, interconnecting them to all living beings and to ‘God’ or ‘Ultimate Reality’... In other words, spirituality is a search for inner identity, connectedness and transcendence” (p. 7).

According to the above mentioned representative longitudinal Hungarian survey, strong religiousness is in a clearly significant positive relationship with both happiness and spiritual health conditions (Székely 2008).

However, in a consumer society it is not evident how life goals are defined by individuals. Consumer society developed into a direction which results in a strange “spiritual” relationship between consumption and “faith”. As Hankiss (2005, p. 160) describes this phenomenon: “The vast internal space (interior) is the target of our weekend, as the church functioned for our predecessors. The shopping centre is the perfect human world, our own universe, internal and intimate space, which is defended by not only a cupola and the walls but also the concentric galleries, shop windows and shops, full with everything what is desirable, seductive and familiar in a man-made world. The “constant flow of attraction” surrounds us with a safety sphere woven of colours and lights. In this world there is no snow and sleet, no rainstorm and drought, no winter and summer, day and night; nothing reminds us of painful caducity”.

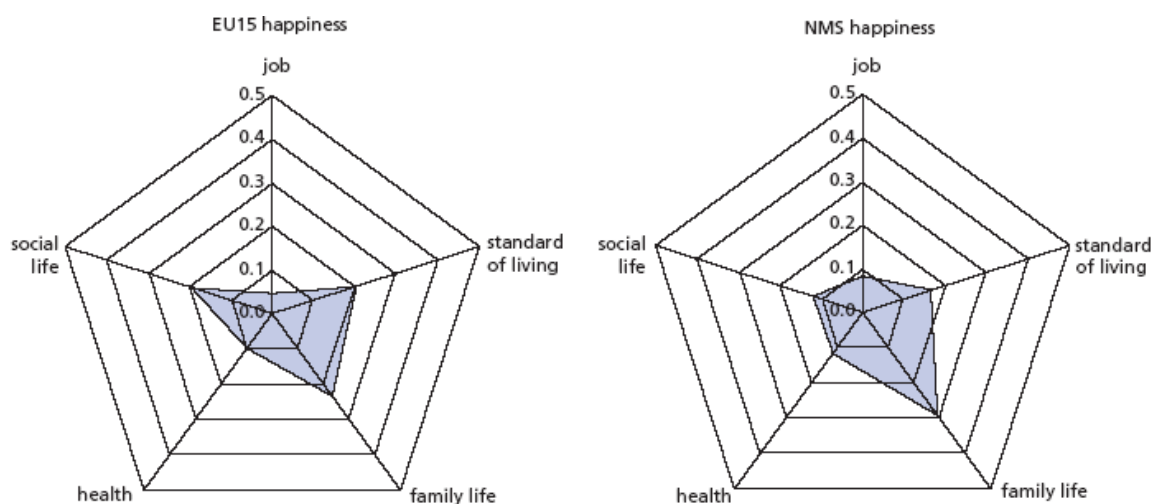
Several people are misled by the communication which attributes “happiness terminology” to products, although it is known that the deeper layers of pleasure, happiness and satisfaction are less influenced by external circumstances. Acquiring goods provides only temporary pleasure, but no durable happiness. Economy is invigorated by this, as more and more is needed again. Satisfied individuals are not good consumers. The interest of the economy is that people keep on seeking happiness where they cannot find it anyway: in material goods. “Desires, evoked by consumer society are causing frustration in many people because they are beyond one’s reach. The lack of appropriate value system as well as the internalization of deviant value and norm system results in crimes from the intention of gaining material benefit, which aspires not directly after satisfying physiological and safety needs” ([www.romapage.hu/szochalo/upload/soltagnes3.doc](http://www.romapage.hu/szochalo/upload/soltagnes3.doc)).

The European Foundation for the Improvement of Living and Working Conditions carried out a research on happiness and life satisfaction in Europe (see Böhnke, 2003). The main objective of the research was to compare the influence of five important domains – living standard, job, family life, social life and health – on life satisfaction and happiness in the EU-15 member states and the new member states (NMS). Results have shown that the standard of living plays a very important role in life satisfaction in all Europe (see Figure 2) and this factor is dominating all the others.



**Figure 2: Influence of domain satisfaction on life satisfaction (Böhnke, 2003, p. 29)**

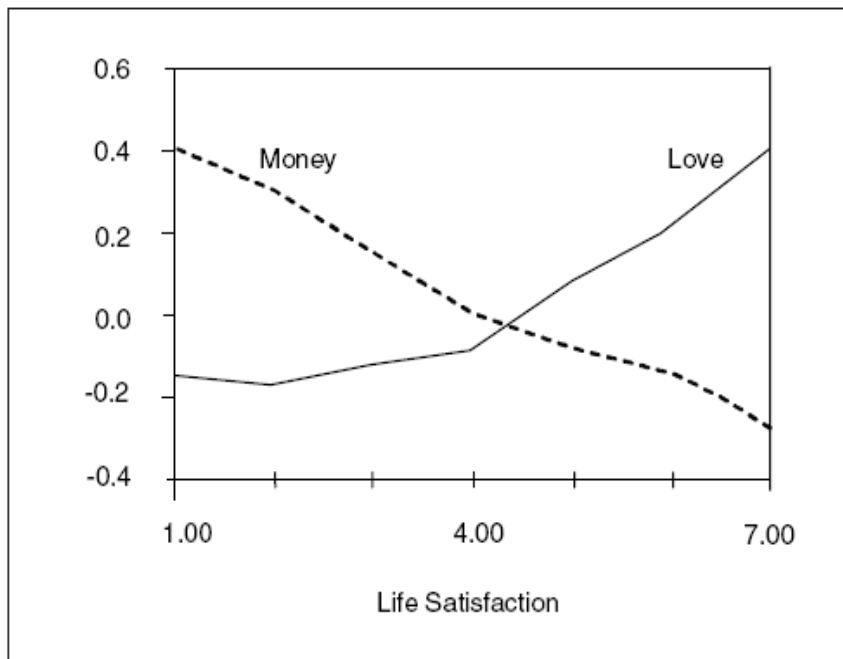
At the same time, the influence of the analysed domains on happiness is much more balanced (see Figure 3). Standard of living is far less important, not dominant at all, while family life and social life gain higher importance.



**Figure 3: Influence of domain satisfaction on happiness (Böhnke, 2003, p. 29)**

Furthermore, there are obvious differences between old and new EU member states which can be traced back to traditions and cultural features: social life (meaning friends and social cohesion primarily for the individual) is significantly more influential in the EU-15 countries, while the quality of family life has the highest ranking in recently joined member states.

Diener and Oishi (2000) illustrate the relation between life satisfaction and the priority of money, as well as life satisfaction and the importance of love (see Figure 4).



**Figure 4: Relation between life satisfaction and love, respectively money (Diener and Oishi, 2000)**

Obviously, materialistic people seem to be much less satisfied with their life than people who attach high importance to love in their lives. These results are very similar to those of Kasser (2002).

Regarding happiness studies, the concept of positive psychology (Seligman and Csíkszentmihályi 2000, Seligman 2002, 2006) has drastically changed the attitude of research in social psychology. Positive psychology – as opposed to ‘traditional’, pathology-dominated psychological discipline – focuses positive subjective experience, positive individual features, and positive institutions in order to improve quality of life and enhance happiness.

Peterson et al. (2005) made a differentiation between ‘full life’ and ‘empty life’, based on three different orientations of people to happiness: pleasure, engagement and meaning (Seligman 2002). They found that “an orientation to pleasure is not as strong an individual predictor of life satisfaction as orientations to engagement or to meaning. But neither is pleasure irrelevant to life satisfaction, because it represents value added to a life rich in engagement and meaning” (Peterson et al. 2005, p. 37). Actually, ‘full life’ is rich in orientations to happiness, while a generally low level of all those three orientation categories results in an ‘empty life’.



Corral-Verdugo et al. (2011) surveyed the correlation between happiness and sustainable behaviour, as an addition to the ‘positive psychology of sustainability’, considering both the positive predictors and the positive (mainly intrinsic) consequences of sustainable behaviour (p. 101). In their research frugality, equity, altruism and pro-ecological behaviour resulted to be predictors of the construct called ‘sustainable behaviour’, while ‘sustainable behaviour’ was significantly associated with happiness as a possible positive intrinsic consequence. Bouckaert et al. (2008) also argue with the positive impact of frugality on sustainable lifestyles and promote the reintroduction of frugality into the economy. They state that “although for religious ethics frugality is a spiritual virtue, for nonreligious ethics it is a rational virtue to enhance happiness” (p. 4). Spiritually based frugal practices are very important as they “may lead to rational outcomes such as reducing ecological destruction, social disintegration and the exploitation of future generations” (p. 23).

Based on a longitudinal representative survey targeted at the Hungarian society, Székely (2008) found significant relationship between the depth of religiousness and health status as well as depression. According to his results, consistently deep, traditional religiousness goes along with a definitely higher level of spiritual health.

Csikszentmihályi (1993) argues with the need of transcendent personalities who are able to reach higher complexity without increasing entropy, while living a differentiated and integrated life at the same time, showing up a high level of spirituality. Interestingly, Csikszentmihályi connects this transcendent and constantly evolving self with evolution, stating that for the survival of mankind and further positive (meaning not destructive) evolution, striving for complexity and spirituality is crucial.

As the ambiguous relationship of wealth and happiness as well as life satisfaction was recognized, several researchers started to seek for influencing factors of human well-being. However, the picture of interrelationships is incomplete yet, especially in Hungary. This paper aims to explore the connections between spirituality, happiness, life satisfaction, sustainable lifestyles and ecological footprint. The research is based on a survey of 1000 respondents, representing the Hungarian society in age, gender, education, income and settlement, carried out by the Department of Environmental Economics and Technology at Corvinus University of Budapest in 2010. The survey focused on lifestyle and consumption habits, the ecological footprint of people, spirituality and interpersonal relationships, as well as future attitudes of behaviour change towards a more sustainable living.

### **3. Empirical survey on spirituality and lifestyle patterns in Hungary**

#### ***3.1. Sample characteristics***

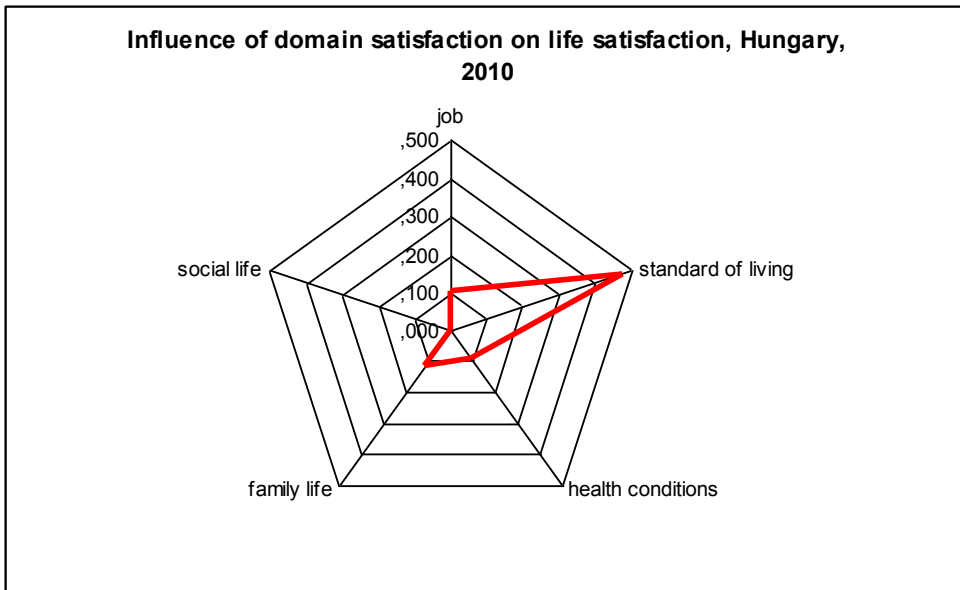
The basis for our empirical analysis is a survey of 1012 respondents which was implemented in 2010. The sample is representative for the Hungarian adult society in age, gender (55% woman, 45% man), education (16% higher education, 33% high school, 27% vocational school, 24% graduate school), income, and settlement (17% Budapest, 12%: county centres, 38%: smaller towns, 33%: villages). The surveying method was personal inquiry, where sampling started with selection of the settlements, followed by application of the random walking method to find respondents. Surveying one person over 18 years in each household was based on the Leslie Kish keys (Kish 1949, 1965). The most important questions of the survey covered lifestyle, food consumption and travelling habits, equipment features of the household, as well as reported contemporary and future attitudes to sustainable lifestyles (results are summarised by Csutora et al. 2011 and Zsóka 2011). Attitudes to spirituality were asked in different forms: directly as depth of religiousness and indirectly through main priorities in life for individuals.

#### ***3.2. Survey results***

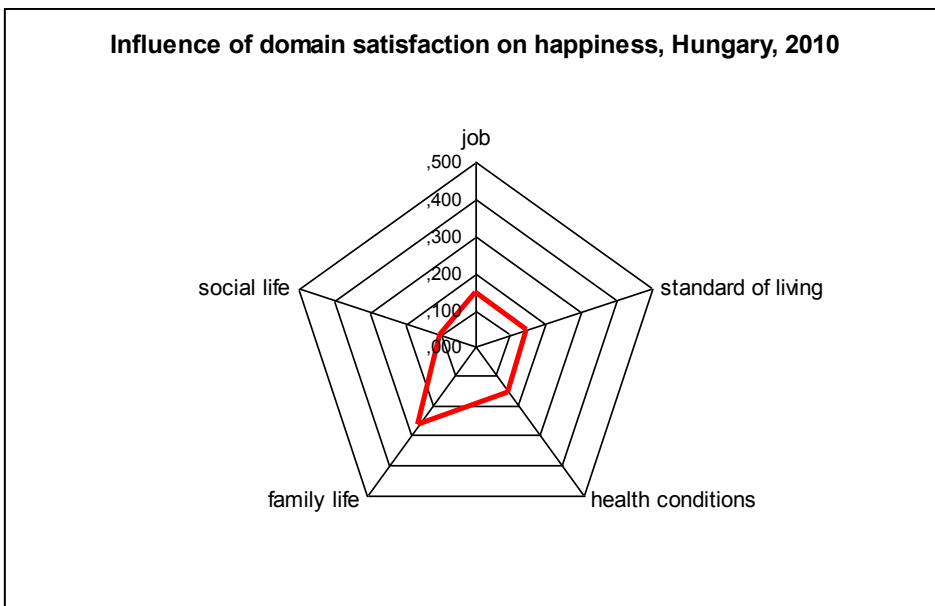
The following part summarises our empirical results. First, the impact of some influencing factors on life satisfaction and happiness are presented. Second, the relationship between spirituality and environmental awareness as well as ecological footprint of individuals is analysed.

##### **Life satisfaction and happiness – influencing domains**

As Hungary was not involved into the European Union-wide survey on life satisfaction and happiness (Böhnke 2003), it is relevant to create the same diagrams for the influence of *domain satisfaction* on life satisfaction and happiness figures for today's Hungarian society (see Figure 5 and Figure 6).



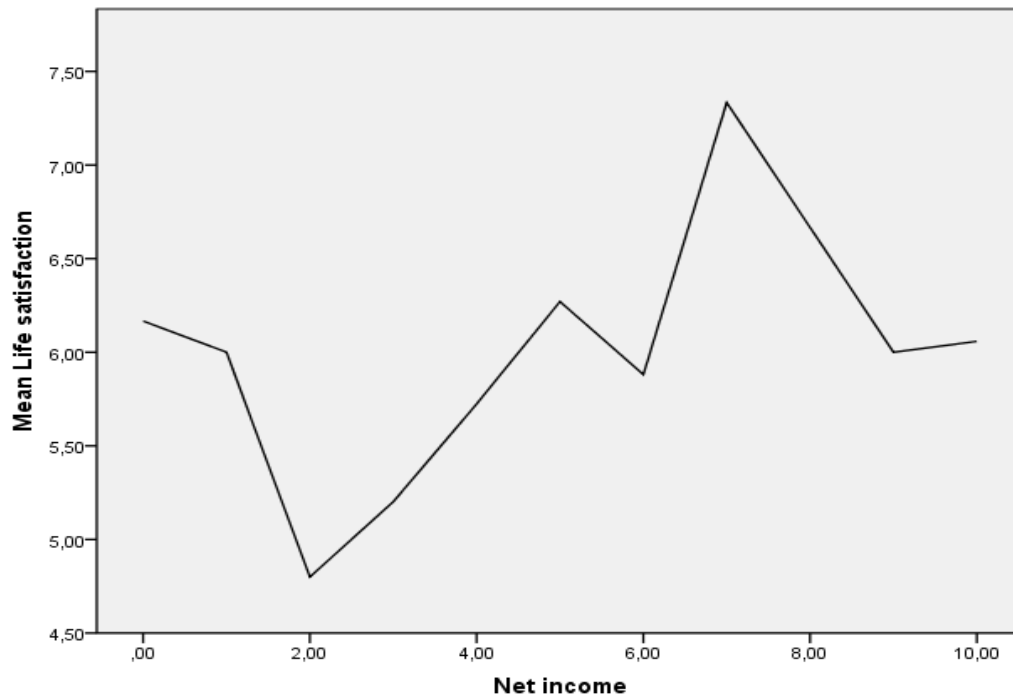
**Figure 5: Influence of domain satisfaction on life satisfaction in Hungary, 2010 (empirical results)**



**Figure 6: Influence of domain satisfaction on happiness in Hungary, 2010 (empirical results)**

Both figures show high similarity to the priorities of the new member states in 2003. The overall picture, however, must be refined by carrying out a more detailed analysis for the domains separately.

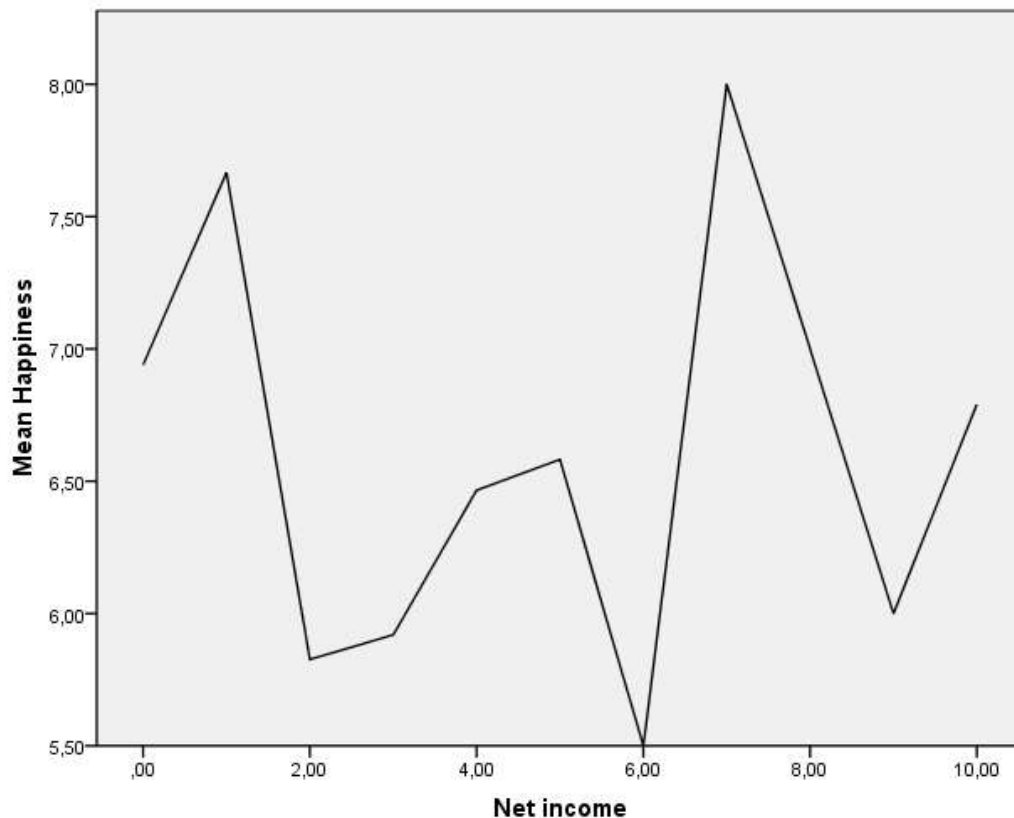
The interrelationship between *income level* and life satisfaction is illustrated in Figure 7.



**Figure 7: Relationship between income deciles and life satisfaction (empirical results)**

Obviously, the relationship between net household income categories and life satisfaction is not linear. We have to remark that the lowest income category included very poor and hence dissatisfied people as well as several students and housewives who do not have their own income but are basically satisfied with their life. In higher income categories there is an obvious break in the curve while the highest income category is distorting as there was only one person belonging to the 10<sup>th</sup> income decile and this person by fortune was not really satisfied.

The connection between income level and happiness is even more interesting (see Figure 8). There is no linear relationship – even when all distorting elements are removed – which means that happiness does not primarily depend on income.



**Figure 8: Relationship between income deciles and life satisfaction (empirical results)**

The influencing domains were partly measured from a negative point of view, through asking people to indicate what they suffer from in their life. Those listed problems were unemployment/bad job, bad financial situation, social exclusion (alienation), unhappy couple relationship, lack of couple relationship/family, and illness.

The impact of *unemployment* on life satisfaction and happiness is summarised in Table 1, indicating that unemployment (with the value of 1) definitely reduces both life satisfaction and happiness of people (mean values are significantly lower in both cases than for those who do not suffer from this problem).

Descriptives									
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Life satisfaction	.00	384	4,9818	1,94767	,09939	4,7863	5,1772	1,00	10,00
	1,00	136	4,4191	1,99464	,17104	4,0809	4,7574	1,00	9,00
	Total	520	4,8346	1,97371	,08655	4,6646	5,0047	1,00	10,00
Happiness	.00	384	5,8099	2,04972	,10460	5,6042	6,0156	1,00	10,00
	1,00	136	5,4853	2,03665	,17464	5,1399	5,8307	1,00	10,00
	Total	520	5,7250	2,04933	,08987	5,5484	5,9016	1,00	10,00

**Table 1: The impact of unemployment on life satisfaction and happiness**

*Bad financial situation* seems to be detrimental to life satisfaction (see the difference of mean values between those who suffer from the problem and those who do not, Table 2) while happiness seems not to be so seriously hit by that at all (Table 3).

**Descriptives**

Life satisfaction

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
None of the listed problems applies	482	6,83	1,731	,079	6,67	6,98	2	10
Applies	306	4,52	1,917	,110	4,30	4,74	1	9
Doesn't apply	214	5,29	1,971	,135	5,02	5,55	1	10
No answer	4	4,75	1,500	,750	2,36	7,14	4	7
Doesn't know	3	5,00	,000	,000	5,00	5,00	5	5
Total	1009	5,79	2,106	,066	5,66	5,92	1	10

**Table 2: The impact of bad financial situation on life satisfaction**

**Descriptives**

Happiness

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
None of the listed problems applies	484	7,20	1,754	,080	7,04	7,36	2	10
Applies	306	5,59	2,047	,117	5,36	5,82	1	10
Doesn't apply	214	5,92	2,041	,140	5,65	6,20	1	10
No answer	4	5,00	1,414	,707	2,75	7,25	4	7
Doesn't know	3	7,67	2,517	1,453	1,42	13,92	5	10
Total	1011	6,43	2,049	,064	6,31	6,56	1	10

**Table 3: The impact of bad financial situation on happiness**

An interesting experience is that in the case when people do not suffer from any problems (financial, health, social, psychic etc.) this situation has a very positive effect on their happiness (mean=7.2) but a somewhat lower impact on life satisfaction (mean=6.83). However, we should also consider that the mean value of life satisfaction in the total sample was lower (4.83) than that of happiness (5.72).

The impact of *social exclusion or alienation* seems to be a very important (negative) influential factor in happiness (see Table 4).

**Descriptives**

Happiness

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
None of the listed problems applies	484	7,20	1,754	,080	7,04	7,36	2	10
Applies	50	5,10	2,341	,331	4,43	5,77	1	10
Doesn't apply	470	5,79	2,007	,093	5,61	5,97	1	10
No answer	4	5,00	1,414	,707	2,75	7,25	4	7
Doesn't know	3	7,67	2,517	1,453	1,42	13,92	5	10
Total	1011	6,43	2,049	,064	6,31	6,56	1	10

**Table 4: The impact of social exclusion (alienation) on happiness**

An even stronger predictor of dissatisfaction and unhappiness is *unhappy couple relationship* (see Table 5 and Table 6).

**Descriptives**

Life satisfaction

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
None of the listed problems applies	482	6,83	1,731	,079	6,67	6,98	2	10
Applies	21	3,29	2,004	,437	2,37	4,20	1	8
Doesn't apply	499	4,90	1,948	,087	4,73	5,07	1	10
No answer	4	4,75	1,500	,750	2,36	7,14	4	7
Doesn't know	3	5,00	,000	,000	5,00	5,00	5	5
Total	1009	5,79	2,106	,066	5,66	5,92	1	10

**Table 5: The impact of unhappy couple relationship on life satisfaction**

Respondents suffering from this problem perceive very low levels of both life satisfaction (mean=3.29) and happiness (mean=3.57). Although not a “material” category, life satisfaction is hardly hit by the problem of unhappy couple relationship which shows that unsatisfied basic social needs dominate unsatisfied basic material needs.

**Descriptives**

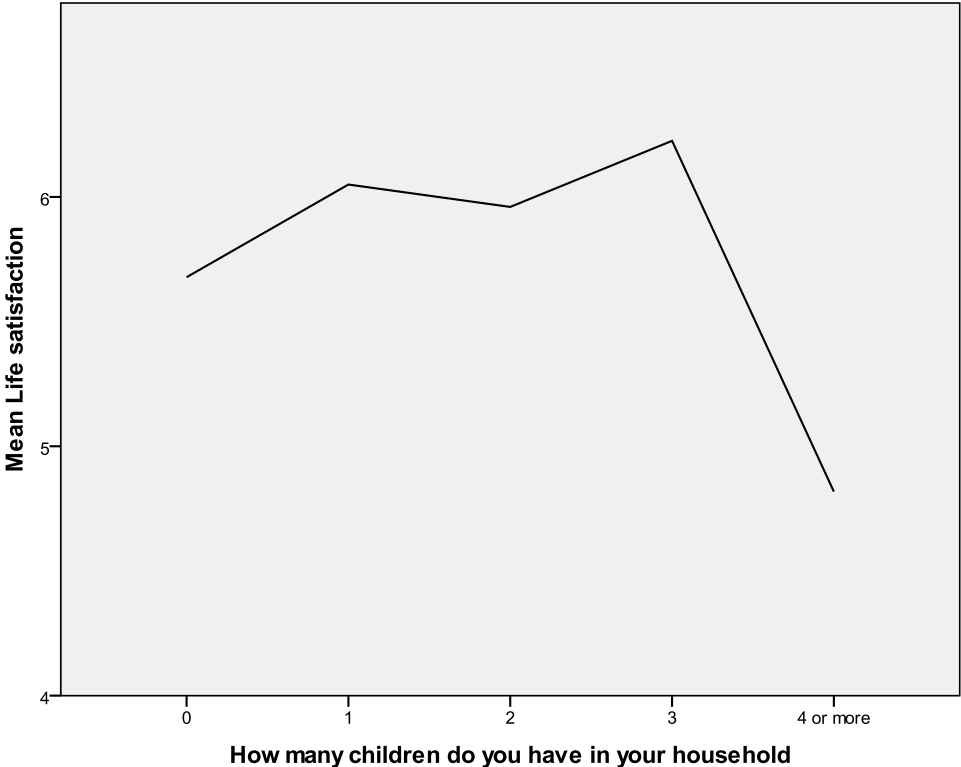
Happiness

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
None of the listed problems applies	484	7,20	1,754	,080	7,04	7,36	2	10
Applies	21	3,57	1,748	,382	2,78	4,37	1	8
Doesn't apply	499	5,82	2,013	,090	5,64	5,99	1	10
No answer	4	5,00	1,414	,707	2,75	7,25	4	7
Doesn't know	3	7,67	2,517	1,453	1,42	13,92	5	10
Total	1011	6,43	2,049	,064	6,31	6,56	1	10

**Table 6: The impact of unhappy couple relationship on happiness**

Beyond problems which are basically negative predictors regarding life satisfaction and happiness, further potential influencing factors were analysed.

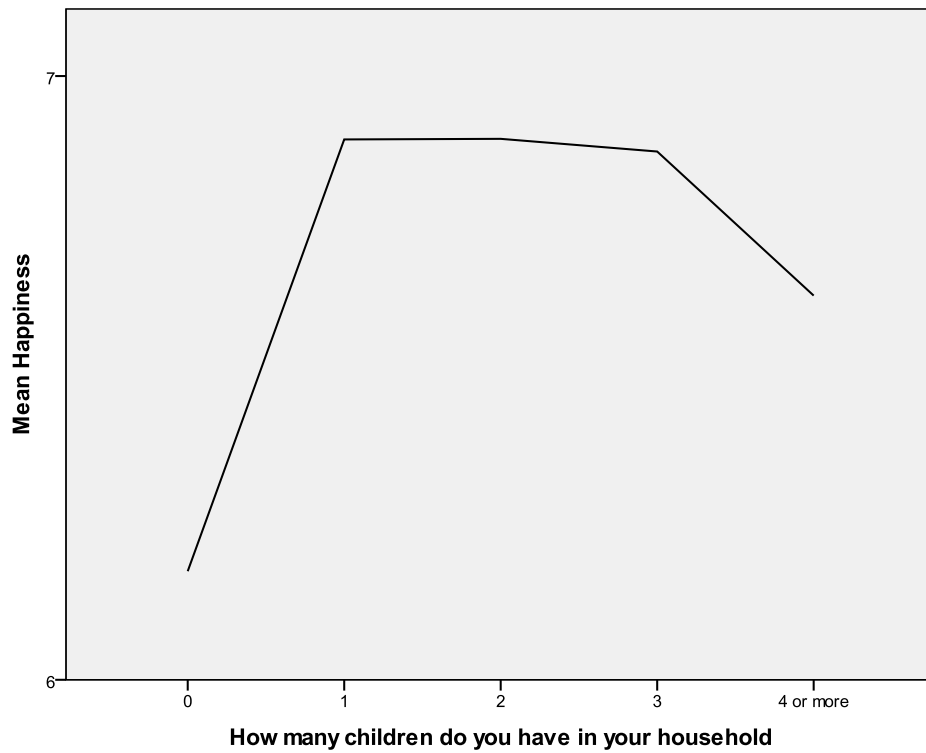
The *number of children* shows very interesting (but different) interdependence with life satisfaction and happiness (Figure 9 and Figure 10). Life satisfaction seems slowly, but gradually increasing with the number of children but over 3 children the satisfaction curve drastically declines. We assume that a high number of children may cause severe financial difficulties in several families, making parents dissatisfied.



**Figure 9: Relationship between the number of children and life satisfaction**

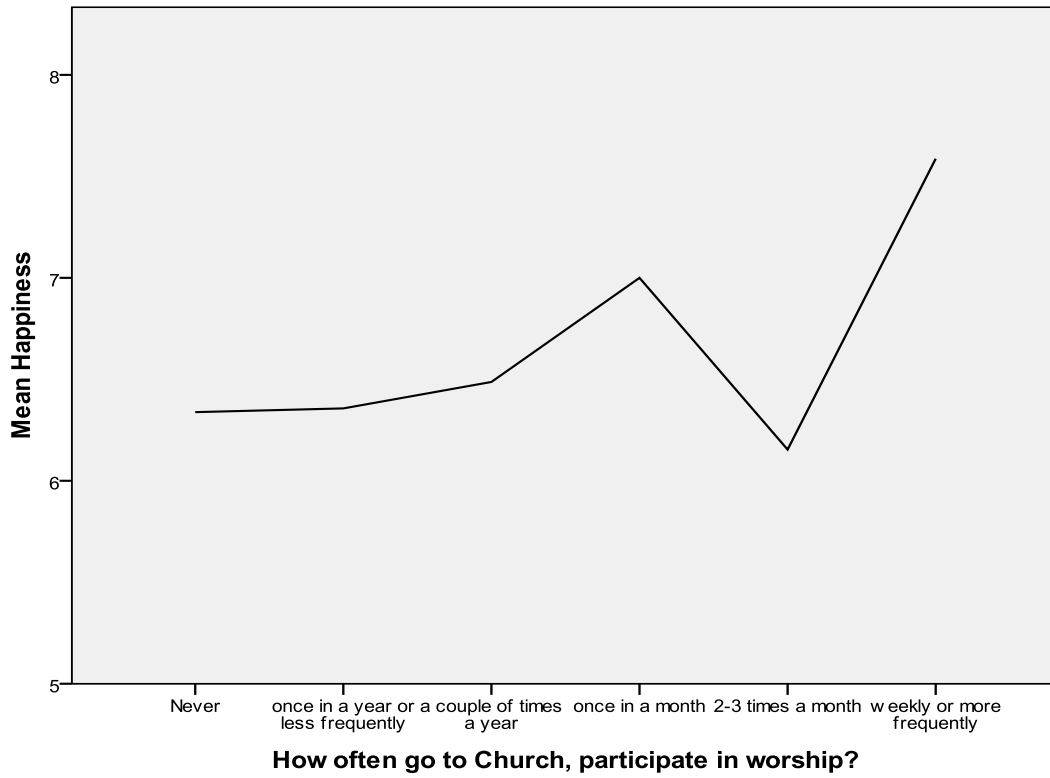
The happiness curve is different. The birth of the first child drastically increases happiness level, which remains quite high in case of 2 and 3 children as well. Over 3 children parents may face not only financial problems but also a large number of everyday worries which reduces their happiness.





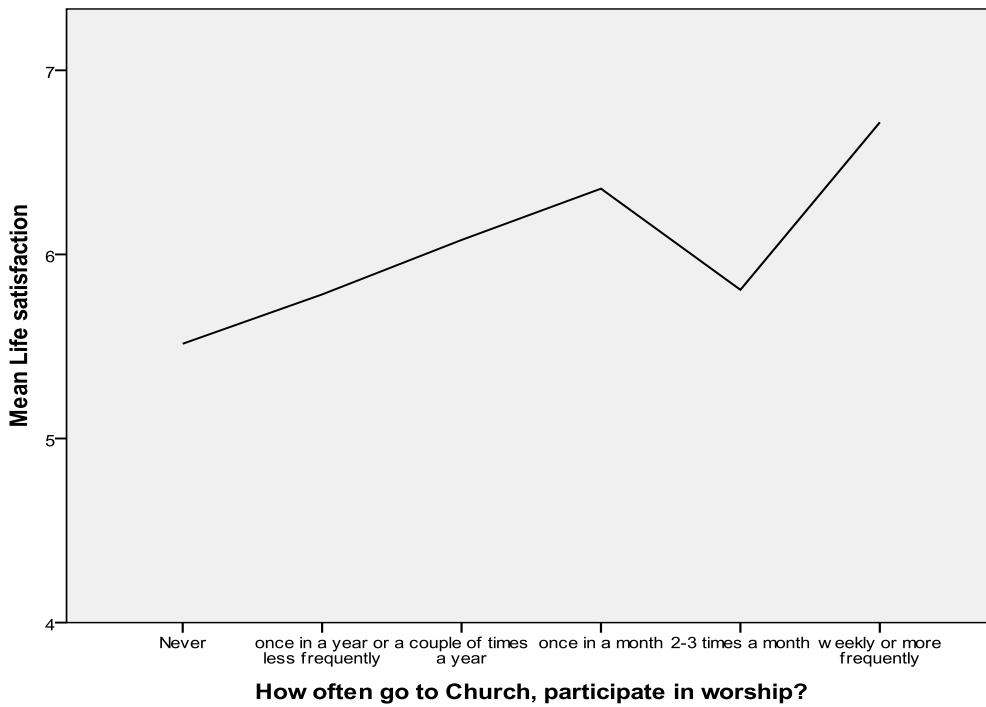
**Figure 10: Relationship between the number of children and happiness**

Usually, *religiousness or spirituality* and happiness are expected to be in a strong positive correlation. However, results show a clear break in mean happiness, the trend is not fully linear (see Figure 11). On the one hand, those who reported to go 2-3 times a month to church or worships seem to be even less happy on average than those who never do so. This might be due, however, to the low number of responses in this category (26 responses only). On the other hand, frequent practice of spirituality makes a clear difference: those who take their faith most seriously, are definitely happier than non-believers.



**Figure 11: Relationship between the spirituality and happiness**

Interestingly, spirituality has some impact on life satisfaction as well (see Figure 12).



**Figure 12: Relationship between the spirituality and life satisfaction**

Although the mean level of life satisfaction is generally lower than that of happiness, the trend is more or less the same – just the curve is more flat, at its entire length.

Obviously, happiness seems to be highly determined by *immaterial elements*, while those elements are also influential in life satisfaction.

### Spirituality, environmental awareness and ecological footprint

Environmental awareness is measured partly through pro-environmental activities and attitudes to sustainable lifestyle. The list of pro-environmental lifestyle patterns follows the structure of the Eurobarometer survey (European Commission 2008). As seen from Figure 13, *spirituality* and *environmental awareness* are significantly interconnected; although the average number of pro-environmental actions taken is generally low in the sample (total average is 2.15 from 8 listed activities). Reportedly atheist people and those who refused to answer the question about religiousness have pursued significantly less pro-environmental activities than people who reported to be religious in some way or are unsure but not rejecting in their attitude.

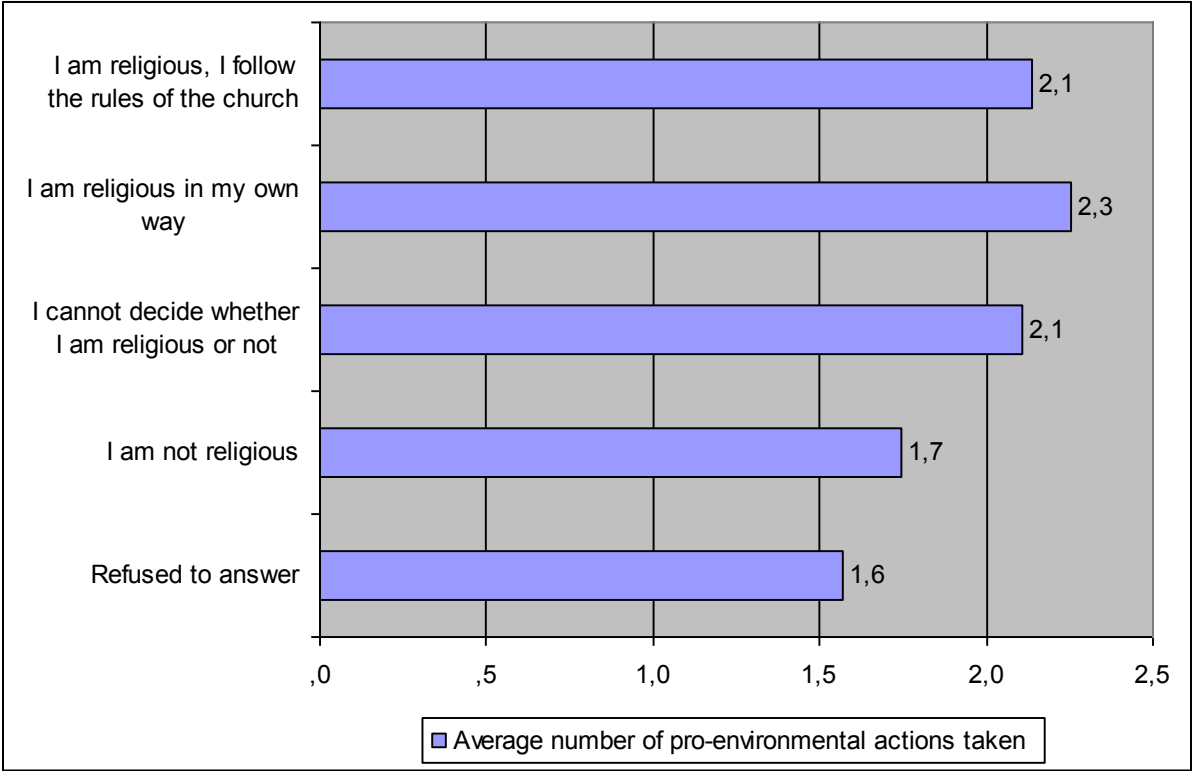


Figure 13: Relationship between spirituality and the intensity of pro-environmental action

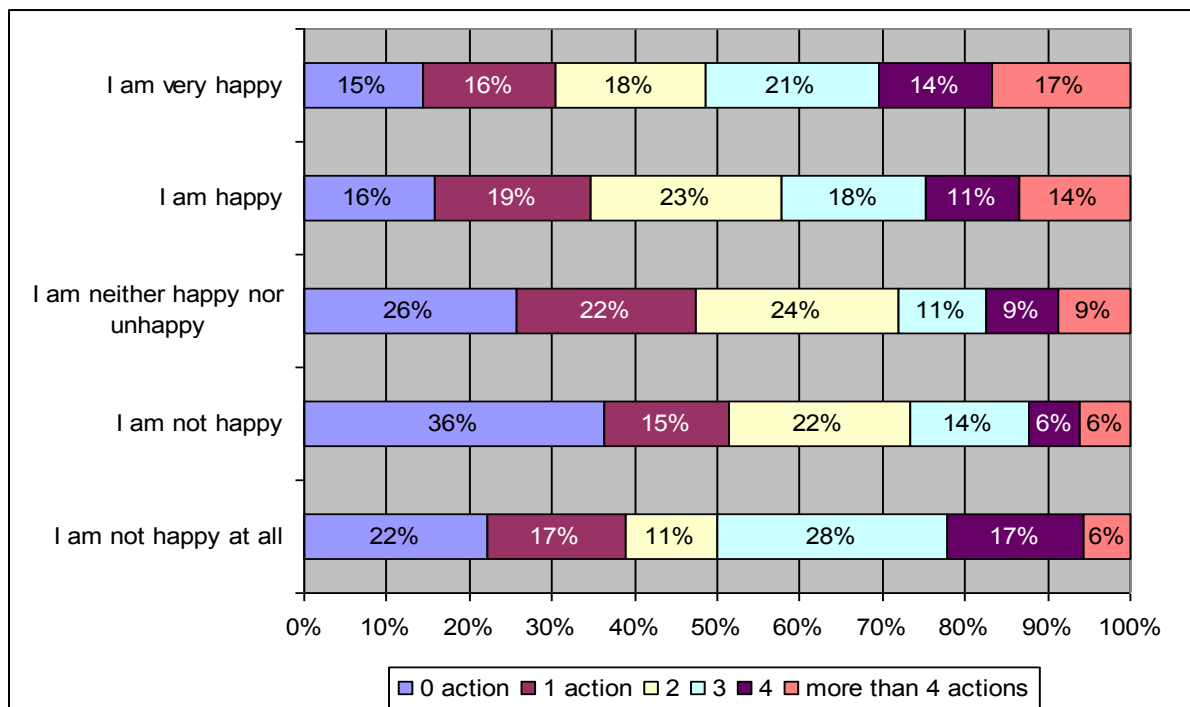
Oneway ANOVA analysis strengthened this picture: people who go to church or worship more than once a month pursue more environmental activities on average than those who never do so (see Table 7).

		Descriptives							
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
környezettudatosság	soha	396	2,0960	1,78202	,08955	1,9199	2,2720	,00	8,00
	Ritkábban mint évente	283	2,0000	1,64812	,09797	1,8072	2,1928	,00	8,00
	Évente néhány alkalommal	184	2,3913	1,89884	,13998	2,1151	2,6675	,00	7,00
	Legalább havonta	97	2,5876	1,80712	,18349	2,2234	2,9518	,00	7,00
	Total	960	2,1740	1,77749	,05737	2,0614	2,2865	,00	8,00
Család, szeretet, közösség hogyan szeretné felosztani, mi lenne az ideális arány az Ön életében?	soha	374	68,59	16,954	,877	66,87	70,31	30	100
	Ritkábban mint évente	282	69,36	16,718	,996	67,40	71,32	20	100
	Évente néhány alkalommal	185	66,32	17,391	1,279	63,80	68,85	10	100
	Legalább havonta	95	73,04	19,923	2,044	68,98	77,10	0	100
	Total	936	68,83	17,356	,567	67,71	69,94	0	100

**Table 7: The impact of spirituality on environmental awareness and immaterial values**

The same is true for the importance of family and love which is significantly higher in the case of strong believers than in any other cases.

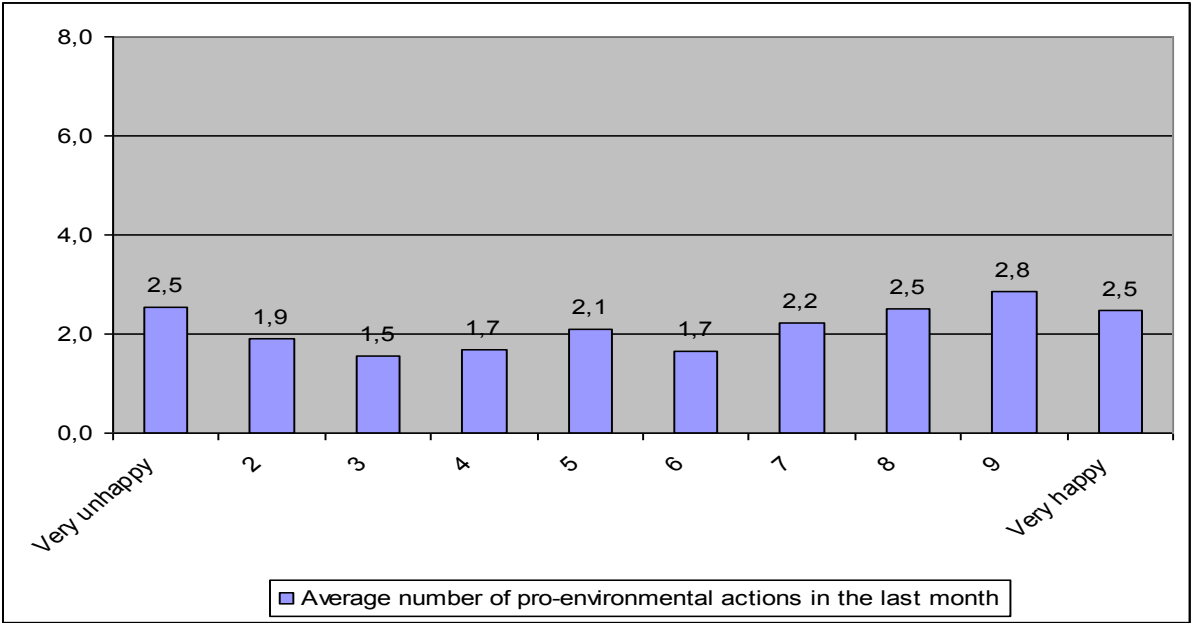
*Happiness* shows significant relationship with the *intensity of contemporary pro-environmental behaviour* (see Figure 14), but this relationship is not fully linear.



**Figure 14: Relationship between happiness and the number of recent pro-environmental actions**

If the 10-value scale of perceived individual happiness is transformed into a 5-value scale, the tendency becomes clear: except the unhappiest group it is true that happier people pursue significantly more pro-environmental actions than their less happy counterparts. The behaviour of the unhappiest group however is similar to the happy ones.

Results are strengthened by an ANOVA analysis as well ( $F=5,358$ ;  $p=0,000$ ), according to which – in terms of the 10-value scale – the most unhappy people have pursued as many pro-environmental actions in the last month as their most happy counterparts (Figure 15).

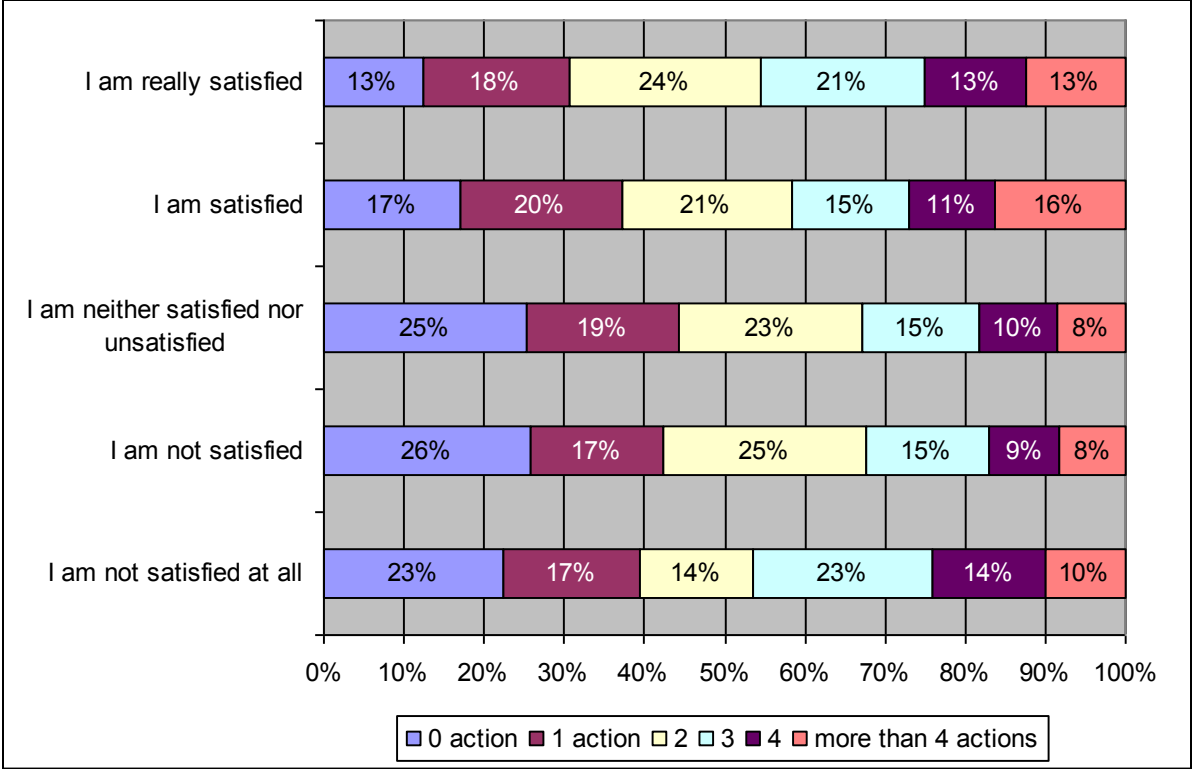


**Figure 15: Relationship between happiness and the average number of pro-environmental actions**

This is probably due to the fact that in the deeply unhappy category several people are in bad financial situation. For them resource-saving lifestyle is much more a necessity than a result of conscious choice. This difference in motivation behind pro-environmental behaviour reflects in future willingness to act consciously: most unhappy people reported to be the least motivated intrinsically to follow pro-environmental behaviour in the future. Those results remained valid after we cleaned them from the distorting impact of irrelevance (meaning that some questions regarding sustainable lifestyle were simply not relevant for poor people; e.g. they cannot use their car less frequently as they do not have a car, etc.).

In happier respondent categories the positive correlation between household income and happiness is much less observable (not significant); hence, income does not exert multi-collinear effect in this respect.

An interesting experience is that *life satisfaction* does not explain any substantial difference in the number of environmentally conscious *activities*.



**Figure 16: Relationship between life satisfaction and the number of recent pro-environmental actions**

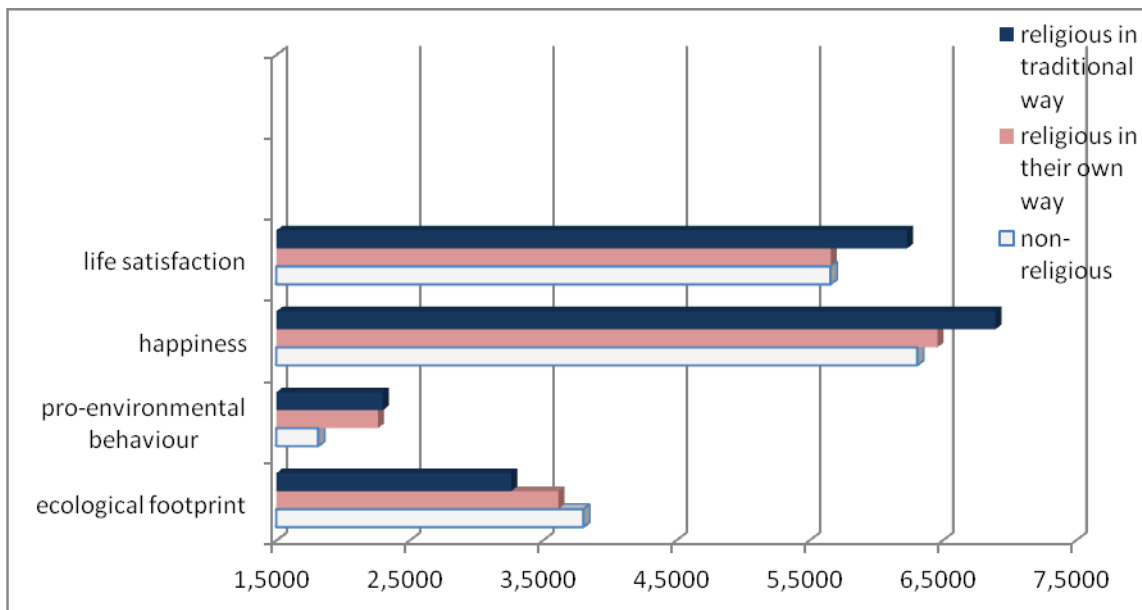
Those, being religious in traditional way thus following the regulations of their Church proved to have significantly lower ecological footprint that those who are not religious. The difference is over 10%. They are also happier, feel more satisfied and attribute more weight to the importance of family life and love. Although they earn somewhat less than non-believers at average, the difference is statistically not significant, which contradicts the original hypothesis of this paper.

Those defining themselves as “religious in their own way” are between the two categories in most respects and resemble the non-religious in some ways and the religious group in other ways. Interestingly enough, they are as active as the religious group in pro-environmental

behaviour that might indicate their inclination towards some widely defined spirituality. At the same time their ecological footprint is closer to that of the non religious group. Their life satisfaction and happiness, as well as their income level are between those of the two other groups. This group should be paid a lot of attention as it represents the highest share of the population (N=549, while N=105 for religious people, and N= 270 for the non-religious group). They feel the need for some kind of spirituality and they are willing to act in an altruistic way in certain respects, but they form the content and rules of that spirituality according to their desires.

		N	Mean	Std. Deviation
ecological footprint	non- religious	202	3,7934	1,85013
	religious in traditional way	82	3,3138	1,17638
	Total	284	3,6550	1,69549
pro-environmental behaviour	non-religious	269	1,8030	1,73695
	religious in traditional way	101	2,2079	1,88847
	Total	370	1,9135	1,78615
happiness	non-religious	270	6,28	2,002
	religious in traditional way	105	6,84	2,215
	Total	375	6,44	2,076
life satisfaction	non-religious	269	5,65	2,147
	religious in traditional way	105	6,27	2,086
	Total	374	5,83	2,145
net monthly income	non-religious	194	91008,92	91839,672
	religious in traditional way	67	76771,64	40152,968
	Total	261	87354,14	81909,125
net household income	non-religious	118	204160,42	125375,831
	religious in traditional way	33	181106,06	91828,964
	Total	151	199122,05	118958,898
Importance of family and love in your life	non-religious	253	66,49	16,832
	religious in traditional way	102	74,25	19,389
	Total	355	68,72	17,925

**Table 7: Major feature of the non religious and religious group**



**Figure 17: Religion, subjective wellbeing and the environment**

Regarding the major attitudes to spirituality, four groups can be distinguished: traditional spiritualism, in-my-way spiritualism, value-driven atheism and materialism (see Table 8).

The majority of the society (54%) reported to be spiritual in their own way, 10.4% belong to one of the traditional churches, while another 26.7% do not believe in God. It does not mean that they would all be materialists, part of them are value-driven in their behaviour, working in the interest of others.

1. traditional spiritualism: religion	2. „in-my-way” spiritualism: tailor-made faith	3. Value-driven atheism: No God, but seeking „good”	4. Materialism: „Goods” are preferred to „Good”
Respects the rules set by a traditional church  (10.4%)	God is there in their life, when needed.  Dominant way of spiritualism (54%)	a cell in the web of society working in the interest of others  3 and 4 together(26.7%)	Hedonism and materialism
simple life has value in most religion and it is compatible with ecological limits	may act in an altruistic way, e.g. in a pro-environmental way	acts in an altruistic way, e.g. in a pro-environmental way	destructive to nature

**Table 8: Major attitudes to spirituality**



We were interested how the form of spiritualism and pro-environmental behaviour relate to happiness, life satisfaction and ecological footprint.

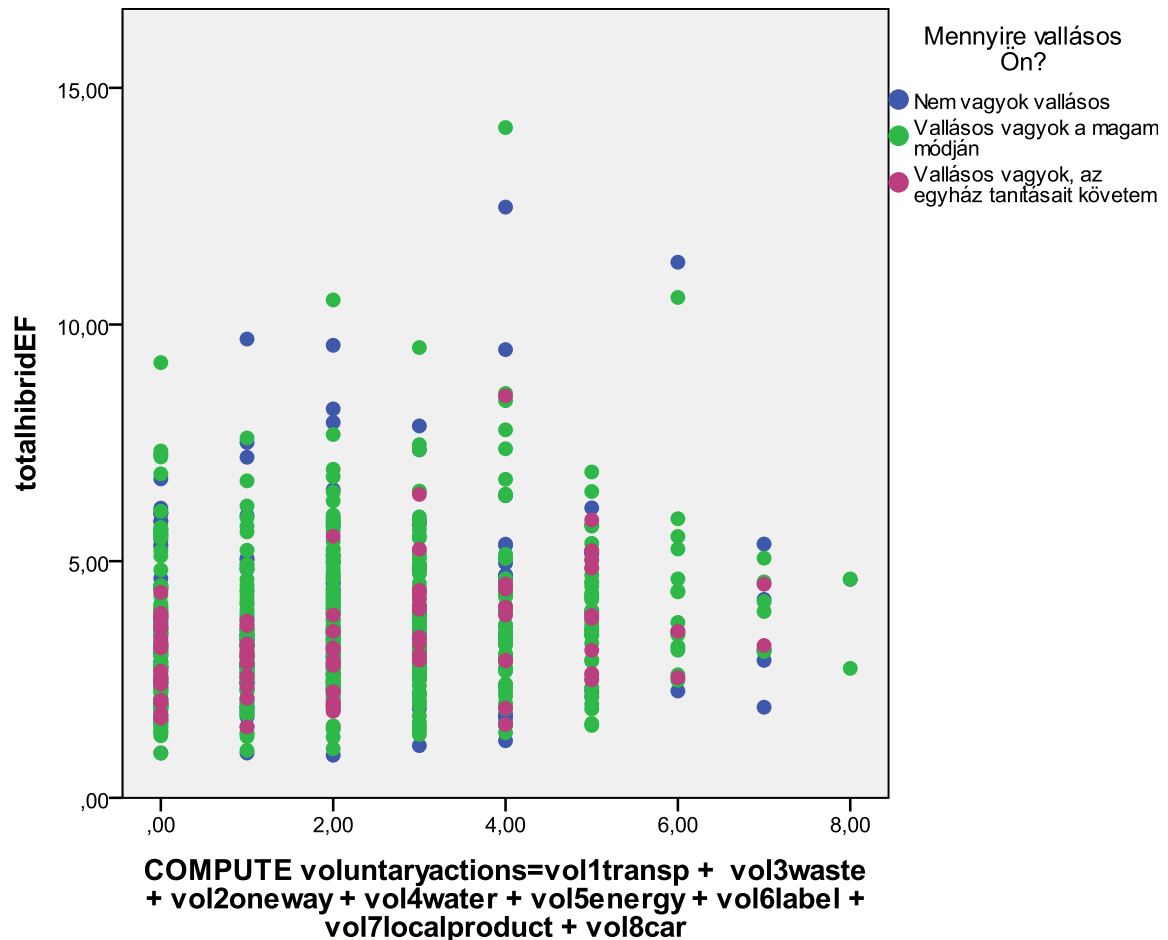
		Pro-environmental behaviour	
		brown	green
Form of spiritualism	religious	happy and satisfied(6.9; 6.35)	with lower ecological footprint (3.2)
	„in-my way” religious	Avg. happiness and life satisfaction( 6.3; 5.9) Average-low footprint (3.4)	Happy and avg. satisfied (6.9; 6) Average footprint (3.6)
	atheist	Less happy and less satisfied(5.8; 5.23) High footprint (3.9)	Happy, and avg. satisfied (7 and 5.9) Average footprint (3.7)

**Table 9: Form of spiritualism and pro-environmental behaviour**

As Table 9 illustrates, religious people are happy and satisfied and have a lower ecological footprint than the average, independently from their everyday environment-related lifestyle. Green “in-my-way” religious people are happier than their brown counterparts, while all those people show an average life satisfaction and average or somewhat lower ecological footprint.

Those results are graphically illustrated in Figure 18.

Not surprisingly, brown atheist (who are not environmentally aware in their everyday life) have high ecological footprint, but they are less happy and less satisfied than the average at the same time. Green atheists on the contrary, reported to be happy and satisfied at an average level, doing less harm to the environment (having an average ecological footprint).



**Figure 18: Ecological footprint and pro-environmental behaviour of religious (purple dots), “in-my-way” spiritual (green dots) and atheist (blue dots) people**

Obviously, spirituality, even when meant in broader sense, makes people happier. Only traditional spiritualism, that is religion, is associated with reduced level of ecological footprint coupled with increased level of subjective wellbeing. Materialism does not make people happy but it is destructive to nature. “In-my-way” green spiritualism leads to a behaviour-impact gap (BIG) problem (Csutora, 2012) and reflects compensational behaviour.

#### 4. Discussion

According to our research findings spirituality should be definitely considered when happiness, life satisfaction, environmental awareness as well as environmental impact of individuals and societies are analysed.

Looking at the overall picture, the Hungarian society of 2010 shows very similar patterns to the “new” member states of 2003 (see Böhnke 2003), in terms of role of domain satisfaction in both life satisfaction and happiness. In life satisfaction, the influence of material wealth is dominating, while family life and other immaterial elements of well-being seem to strongly shape happiness. However, a more detailed analysis uncovers the ambiguous features of the interrelationship between standard of living and life satisfaction, while happiness proves to not depend primarily on income level.

Regarding spirituality, our results about the relationship between religiousness and happiness support the findings of the representative longitudinal survey on the Hungarian society between 1995 and 2006 (Székely 2008). According to Székely, the rising number of people who report to be “religious on their own way” has several risks for the society, as health conditions in this group have become significantly worse than in the group of traditionally religious people, and depression is also significantly more frequent among them. In our research, this phenomenon reflects in the break of the positive linear trend in happiness, indicating that the depth of spirituality is an important indicator for perceived happiness.

In line with Zsolnai (2010), spirituality definitely helps people look beyond their personal constraints and take broader interests and perspectives into consideration. Clear signs for this transcending effects are the positive correlation between (1) the number of children and happiness (till 3 children at least), (2) spirituality and intrinsically motivated environmental awareness (see also Brown and Kasser 2005 for comparison), as well as (3) spirituality and ecological footprint.

Our survey represents the Hungarian society which makes the formulation of general conclusions possible. However, as in case of every empirical research, limitations should be considered as well. The survey method provides the opportunity to measure interconnections between variables; however, clear casualties are difficult to establish. Furthermore, the level of subjectivity is very high in case of questions connected to individual well-being. People are assumed to define and perceive life satisfaction, happiness and spirituality quite differently for themselves which is a frequent limitation of “happiness studies”. Religion is a sensitive issue for people; which increases the rate of refusing and ambiguous (“I am religious in my own way”-type) answers. Questionnaire-based surveys generally induce self-reporting bias which we tried to reduce via concrete, quantifiable questions regarding the ecological footprint. Control variables were also built in to avoid misleading conclusions (e.g. future willingness to take pro-environmental activities has shown the intrinsic motivation for

environmental awareness which helped explain and shade the results on contemporary pro-environmental behaviour). Some questions had to be cleaned from the distortion of their “irrelevance effect”, especially in cases where household income had a determining impact on material goods. The most evident example for this phenomenon was car ownership: the question regarding the attitudes towards less frequent car use was simply not relevant for the poorest people as they do not possess a car. During the analysis, we tried to eliminate or at least reduce the impacts of those limitations.

## **5. Conclusions**

The paper aimed to provide additional insights into the wide and partly uncovered area of interactions among spirituality, happiness, life satisfaction and sustainability, supported by a survey representing the Hungarian society. As results reflect, spirituality definitely proves to matter in pro-environmental behaviour, sustainable consumption, happiness and life satisfaction. Both life satisfaction and happiness are in very ambiguous relationship with the income of households, strengthening the proverb that “money does not make us happy”. Bad financial situation can make people feel unhappy and dissatisfied but higher income does not necessarily make happier or more satisfied.

The number of children proves to be a much more important indicator of happiness (positively) and so does the priority order of important domains in life (like important people, values, dreams, material goods etc.). The relative importance of love, family and attitudes to career and self-actualization significantly correlate with happiness. Unhappy interpersonal relationships make people definitely much unhappier and more dissatisfied than the lack of money or job. Of course, those respondents reported to be the happiest and most satisfied who do not suffer from any of the listed problems (like social alienation, illness, unhappy personal relationship, lack of family, bad financial situation, unemployment) but a deeper analysis shows the correlation of those factors with happiness and life satisfaction more precisely.

Regarding sustainable lifestyles, people at the two extremes of happiness ranking seem to act environmentally friendly over the average, but the reasons behind are obviously different. Very happy people strive for a sustainable life from an intrinsic motivation which is reflected in their high willingness to act environmentally friendly in the future. Very unhappy people, on the other extreme, seem to be forced to live a modest life for financial reasons but if pro-environmental behaviour was their own choice they would not go for it (their future

willingness to act was lower than the average). Of course, environmental awareness does not necessarily mean sustainable consumption: respondents with higher income have a bigger ecological footprint, which is not compensated by their environmentally conscious attitudes. However, happiness and spirituality make a clear distinction in the ecological footprint in every income group showing that spiritual life is significantly connected to frugality and smaller environmental impact. Spirituality is definitely a significant factor in sustainable lifestyles, as respondents reporting themselves to be religious pursued significantly more pro-environmental activities than unreligious people or those rejecting response. Strongly religious people are definitely happier and more satisfied than less religious or atheist individuals.

Spirituality seems proved to be a significant factor in determining happiness, life satisfaction, pro-environmental behaviour and ecological footprint. Religious people are more satisfied and happy, live a simpler life and are featured by lower ecological footprint than non-religious ones. Special attention has to be paid to those who are religious in their own way as they represent the highest share of the population. They feel the need for some kind of spirituality as they are willing to act in an altruistic way in certain cases, but they seem to form the content and rules of that spirituality according to their desires. They act in a pro-environmental way, still their ecological footprint resembles more that of the non religious group.

Losing spirituality might accelerate ecological degradation. Our culture, however, calls for value neutrality in this respect. We are not supposed to support spiritual education just for environmental reasons. Still, the value neutrality of our culture can be questioned as massive marketing of goods and the spread of consumer society depletes some former level of values and spirituality.

The main added value of our survey to the discussion of relationships between spirituality, happiness, life satisfaction and sustainability arises from its representative feature and unprecedented linking of influencing factors, especially in Hungarian context. Results can provide a valid basis for further studies on the probably biggest challenge of mankind today, seeking the main predictors of happy, satisfied *and* sustainable life, for the sake of our physical survival and spiritual health.

### ***Acknowledgement***

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