Does Living on an Island Make You Happier?

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Abstract. This paper revisits the literature on the economics and spatial economics of happiness with a particular focus on geographical and environmental features pertaining to islands and related characteristics and concepts such as insularity. It includes preliminary statistical analysis of suitable secondary data in Europe including most of the variables that are thought to be associated with subjective well-being measures and examines whether and the extent to which insularity and living on an island may have a statistically significant impact on happiness when compared to mainland areas. To that end the paper makes a start in addressing aspects of a new research agenda for happiness and islands, which considers a number of attributes of islands that are typically seen as negative from an regional economic performance perspective (mostly relating to remoteness and poor accessibility to the mainland) but which might be considered as positive in terms of happiness and well-being.

Keywords: well-being · insularity · geographical handicaps · remoteness

1 Introduction

This paper revisits the literature on the economics and spatial economics of happiness with a particular focus on geographical and environmental features pertaining to islands and related characteristics and concepts such as insularity and 'islandness'. It has long been argued that islands are special cases for sustainable economic and social development. They are relatively isolated and 'on their own' compared to mainland areas, yet they are also more dependent and need to be well-connected to other areas more than mainland areas. The dominant economic development model, which is based on high population concentrations, specialization, large-scale production, and agglomeration economies does not directly apply to most islands, especially the smaller and medium-sized ones.

The paper presents preliminary statistical analysis of suitable secondary data in Europe including most of the variables that are thought to be associated with subjective well-being measures and examines whether and the extent to which insularity and living

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on an island may have a statistically significant impact on happiness when compared to mainland areas. To that end the paper also considers a number of attributes of islands that are typically considered as 'negative' from an regional economic performance perspective (mostly relating to remoteness and poor accessibility to the mainland) but which might be considered as positive in terms of happiness and well-being (as is also evident by the popularity of many remote islands as tourist destinations).

The paper also considers and discusses the policy implications of the analysis, including issues pertaining to alternative sustainable futures (also drawing on the ongoing work as part of the new Erasmus Mundus International Master programme and consortium ISLANDS [1]).

2 Happiness, Space, Place, Islands and Insularity

There is a well-established 'happiness field' within the social sciences cutting across a range of themes including economics, sociology, psychology, demography, planning and more recently geography [2–5]. In this context there has been a significant body of studies aimed at analyzing the socio-economic and demographic determinants of subjective happiness and well-being with the use of self-reported measures of well-being measured in social surveys. Economists have been making significant contributions to this field with analysis mostly focusing on individual or household level determinants of well-being. According to recent reviews and summaries of relevant literature [6] with references to more extensive reviews [2, 7], a list of such determinants includes income and employment status, health status, education, social contacts and inter-personal relationships, trust, social capital and migration status.

There has also been an increasingly sustained effort by scholars working in economic geography and regional science to add a spatial dimension to the analysis of happiness by considering the role of space and place the upon subjective well-being of individuals [3, 4, 8]. It has been increasingly argued [3] that from a methodological perspective there is a need for a "comprehensive geographical approach to the analysis of subjective happiness and well-being in order to attempt to quantify the extent to which subjective happiness can be attributed to 'individual' (e.g. employment status, age-group), 'household' (e.g. household income, accommodation type and size), and/or wider 'contextual' circumstances and characteristics (e.g. climate, socio-economic environment) across the world, and to establish the relative importance of such characteristics in different countries and within regions and cities in a country". To that end, a regional science and economic geography approach in the analysis of happiness and its determinants can be adopted to address questions such as [3]:

- "Is the source of happiness or unhappiness purely personal, or do spatial/contextual factors matter? (and if they do, to what extent?)
- Are there happiness spatial spillover effects? Does the happiness level of an individual affect that of their neighbors?
- If social comparisons are important, what is the spatial scale at which people make their social comparisons?
- Do the levels of happiness among individuals reflect different characteristics of residents in different districts and regions and areas (compositional effects) or are there

environmental, geographical, or other factors (e.g. amenities, social capital and cohesion, socio-economic inequality) of places that cause their inhabitants to be happy or unhappy (contextual effects). In other words, should we talk of Happy People, Happy Households, or Happy Places?" [3].

The work presented in this paper is part of a wider project and research effort aimed at extending the above 'geography of happiness research agenda' by engaging with the literature on the field of island studies [9, 10]. In particular, our paper builds on the literature that explores the possible impact of the physical environment upon happiness and to that end, insularity and islandness is seen as physical geography feature. There is already significant research that considered the impact of location-specific factors upon happiness and associated factors, such as, for example, the work of Brereton et al. 2008 [11] who used GIS-based methods to explore the impact of location-specific factors (including distance from natural amenities) upon subjective life satisfaction and well-being in Ireland. Also of relevance is the work of Mitchell [12] who examined the relationship between green spaces and measures of health in Scotland and highlighted the importance of access to green spaces in relation to mental health and life satisfaction. There has also been extensive work exploring urban planning, the natural environment and public health measures in the US and urban/rural differentials [13–16].

The work presented in this paper builds on this literature by adding an islandness and insularity dimension to geographical as well as human geography features. In particular, we consider the importance of islandness defined in relation to the geography of islands, their physical, economic, societal and symbolic characteristics, including (but not limited to) issues of place and cultural identity, geographical specificities and geographical handicap and local and regional population dynamics of island regions. We also consider key qualities of islands including their remoteness, small size (compared to the mainland), vulnerability, isolation and inter-dependencies with the mainland and other islands. This paper makes a start to that direction by utilising data from the European Social Survey and local data (building on recent work by one of the authors of this paper [6] and focusing on Greece, an EU member state in which islands play a very prominent role in terms of the country's social and cultural identity, tradition and history. A country with 6,000 islands and islets (of which only 227 islands are inhabited) [17].

3 Data and Methods

As noted in the previous section, there is a rapidly growing number of research studies which involve the quantification and analysis of subjective happiness and well-being measures and their socio-economic and spatial determinants. These studies are typically based on self-reported measures of happiness and well-being included in social survey datasets. One of these datasets is the European Social Survey (ESS), which is an academically driven cross-national survey, conducted biennially across Europe since 2001 with the use of face-to-face interviews conducted with newly selected cross-sectional samples [17]. The survey includes a wide range of demographic and socio-economic data, including subjective happiness and life satisfaction but also social attitudes and human values. In this study we use the sub-dataset for Greece and also build on recent work by one of the authors of this paper [6] including a dummy variable for islands.

In particular, we used a subjective happiness measure as our dependent variable, which is measured on a 0–10 scale on the basis of the question: How happy are you? We z-transformed and centred it and assumed it is a happiness continuous dependent variable. In addition, we included relevant individual level demographic and socio-economic explanatory and control variables and in particular, age (age and age squared, centred to regional averages) and dummy variables in relation to gender, employment status, income category, trust in institutions and health status but also information on whether a respondent has been a victim of crime, as well as a dummy variable relating to subjective financial conditions (the extent to which respondents feel they are coping financially on their present income). We also added a dummy variable referring to whether the respondent is based on an island (taking the value of 1 if they are) or not (taking the value of zero).

4 Results

Table 1 presents the results of regression analysis of the data for Greece in the 2010 wave of the European Social Survey [18] with the added island dummy as discussed above. As can be seen the following variables have significant positive main effects on happiness (as defined in this study): individual income, subjective financial circumstances (those who feel living comfortably or coping on present income compared to those who do not), health status, cohabiting status (respondents living with husband, wife, partner report higher happiness scores than those who do not). On the other hand, being unemployed has a significant negative main effects These results are widely consistent with previous research on the correlates of happiness which were briefly reviewed and referred to in Sect. 2.

As can also be seen in the table presenting preliminary statistical analysis and with regards to the question posed in the title of this paper, the results suggest that the answer is positive: there is a statistically significant positive effect on subjective happiness of individuals living on a Greek island when compared to those living on the mainland. Nevertheless, it should be noted that there is a need to consider additional variable that may be associated with insularity (as discussed in Sect. 2). The results presented in this paper give just a flavor of the potential that there is and a proof of concept for a more comprehensive model and discussion. The following section discusses further some of the key issues that would need to be considered when building a more comprehensive model (Table 2).

Table 1. Does living on an island make you happier? Regression analysis results

Dependent variable: happy	Coef.	p-value
Age (centred)	−0,019	0,000
Age squared	0.001	0.000
Female (ref: Male)	0.171	0.032
Secondary education attainment (ref: primary)	0.061	0.549
Tertiary education attainment (ref: primary)	0.102	0.382
Income missing (ref: low income	0.063	0.518
Medium income (ref: low income)	0.366	0,001
High income (ref: low income)	0.705	0.000
Living comfortably or coping on present income (ref: finding it difficult or very difficult)	0.809	0.000
Cohabiting with husband/wife/partner (ref: not cohabiting)	0.639	0.000
Unemployed	−0.463	0.001
Health very good or good (reference: fair. Bad and very bad)	0.607	0.000
Living on an island	***0.467***	***0.000***
Constant	4.226	0.000

Table 2. Does living on an island make you happier? Regression model diagnostics

Number of observations	2,669
F (13, 2655)	33.03
Prob > F	0.0000
R-squared	0.1392
Adj R-squared	0.1350
Root MSE	2.0128

5 Discussion

This paper presents preliminary analysis of relevant secondary data that can be used to study the possible impacts on and/or links between insularity, islandness and subjective happiness and well-being. As also noted in the previous section, the preliminary results presented are just a starting point and give a flavor of the potential for further analysis. There is a need to acknowledge and take into account in the analysis that there are significant differences between islands and to that end we can consider relevant typologies and

classifications. Of particular relevance here is previous work that classified the Greek islands to the following clusters/typologies [19]:

- Cluster 1: Small, remote from EU and agriculture dependent comprising the following islands: Agios Efstratios, Amorgos, Anafi, Antiparos, Folegandros, Irakleia, Kea, Kimolos, Kythera, Kythnos, Schinoussa, Serifos, Sifnos, Sikinos, Skyros
- Cluster 2: Small, remote from Athens and the EU and agriculture dependent, comprising the following islands: Agathonisi, Astipalaia, Inousses, Ios, Kalymnos, Karpathos, Kasos, Leipsoi, Nisyros, Patmos, Psara, Symi, Thirasia, Tilos
- Cluster 3: Accessible, successful and diversified, comprising: Andros, Chios, Donoussa, Kos, Leros, Lesvos, Milos, Mykonos, Naxos, Paros, Rhodes, Samos, Santorini, Syros,, Tinos
- Cluster 4: Ionian islands, large, dependent on agriculture and tourism – these are: Erikoussa, Ithaki, Kefalonia, Kerkyra, Lefkada, Othoni, Paxi, Zakynthos
- Cluster 5: Inshore, diversified, but mixed economic performance, comprising Aegina, Agistri, Alonissos, Evia, Hydra, Poros, Salamina, Skiathos, Skopelos, Spetses
- Cluster 6: Crete

Also of relevance (and with potential to include in our analysis) is the work of island scholars aimed at building indices of accessibility of islands (with a particular emphasis on transport modes and choices), focusing on Greece [20, 21]. The research presented in this paper may also have important policy implications, as it relates to regional and island-related policies. In particular, it is particularly relevant to debates pertaining to social and territorial cohesion as well as so called geographical handicaps and quality of life [22].

There is also potential to synthesize the happiness research agenda and key questions posed in Sect. 2 with key questions that are being addressed by scholars in the island studies field. In particular, as pointed out in a recent key textbook on island studies, such questions include (adopted from [10]):

– Are islands and islanders marginalised and vulnerable to global changes, or are they resilient and capable of responding quickly to external pressures?
– Are islands and island societies isolated and remote physically, cultural, and economically, or are they open and connected to the world around them?
– To what degree do islands share common features?
– Are islands and islanders diverse, heterogeneous and unique, or do they share standard characteristics that may allow us to think of them as part of one or more relatively homogenous, coherent, groups? [10].

6 Concluding Comments

This paper presented preliminary analysis and a research agenda regarding the possible impact of insularity and islandness upon subjective happiness and well-being. The preliminary results suggest that the response to the title posed in the title of this paper is positive. Nevertheless, as briefly outlined in Sect. 5, these preliminary findings are the basis for further work that will take into account more factors and methodological and conceptual issues, engaging with and building upon relevant work by scholars in

working on the spatial economics of happiness as well as island studies. There is also significant potential for GIS, geoinformatics and related methodologies in the social sciences [23] to be applied extensively in order to consider a wide range of variables and factors associated with insularity (including remoteness and inder-dependencies of islands from/to other islands and the mainland as well as more sophisticated accessibility indicators).

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