

## **Measuring happiness for social policy evaluation: A multidimensional index of happiness**

Gabriela Delsignore<sup>1</sup>, Alejandra Aguilar-Latorre<sup>2\*</sup>, Pablo Garcia-Ruiz<sup>1</sup>, Bárbara Oliván-Blázquez<sup>1,2</sup>

<sup>1</sup>Department of Psychology and Sociology, University of Zaragoza, Zaragoza (Spain)

<sup>2</sup>Institute for Health Research Aragón (IIS Aragón), Zaragoza (Spain)

### **Corresponding Author:**

Alejandra Aguilar-Latorre

ORCID: <http://orcid.org/0000-0003-2683-7346>

Institute for Health Research Aragón (IIS Aragón), Violante de Hungría 23, Zaragoza (Spain), 50009

E-mail: [aaguilar@iisaragon.es](mailto:aaguilar@iisaragon.es)

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The data that support the findings of this study are available from the corresponding author, AAL, upon reasonable request.

#### **Authors' contributions**

GD led the design and developed the study and had the original idea. GD and AAL coordinated and undertook the research and data analysis. GD and AAL wrote the first draft of the article. BOB and PGR have read the manuscript critically, offering contributions and approving the final version. The corresponding author attests that all listed authors meet authorship criteria and that no others meeting the criteria have been omitted.

### **Abstract**

There are multiple indices based on positive psychology and the economics of happiness for measuring, evaluating and developing social policies. Based on univariable scales, they reflect a more hedonic view rather than a complex perspective on social reality and human behaviour, which renders them unfit for purpose in the field of sociology.

This paper proposes a multidimensional model that includes social relationships and human happiness, focusing more on eudaimonic than hedonic happiness. It contains an affective dimension, an ethical dimension, and a welfare system's evaluation dimension. Based on the sociology of emotions, it includes elements from Shalom Schwartz's theory of values and Jacques Thomassen's study of societies with consolidated political and welfare systems.

The model was validated using an Exploratory Factor Analysis with 28 variables from the European Social Survey (ESS). A multidimensional index is proposed, composed of five factors: the welfare system, positive and negative emotional states, altruism, and egocentrism.

### **Keywords**

*Sociology of emotions, Happiness Index, altruism, egocentrism, social policies*

## Introduction

The advancement of knowledge requires there to be consensus around the concepts which are to be researched. Studies of happiness and well-being demonstrate the difficulty of reaching an agreed definition of these concepts. For example, in the case of *well-being*, Ruut Veenhoven (2000, 2008) indicated a certain tendency to equate public welfare or the welfare state with the well-being of individual people. We may also ask ourselves about the notions that surround the concept of *happiness*. In particular, when we study happiness (and it is our main focus), popular consciousness relates it to the notion of *hedonic happiness* as proposed by Epicurus in his Letter to Menoeceus (Epicurus 2018/4th century B.C.:47-53). This notion is linked to a personal state of well-being and satisfactory experiences associated with attaining pleasure and avoiding pain (Kesebir 2018). Conversely, we may associate happiness with the notion of *eudaimonic* or *Nicomachean happiness*: described by Aristotle in the Nicomachean and Eudemean Ethics (Aristotle 1998/4th century b.c.e.:394-401), defined as a state of fulfilment linked to virtue and wholeness which places more emphasis on *doing good* rather than on *feeling good*, on the basis that what is right for a person is nurtured over time and does not necessarily give them pleasure or a sense of well-being (Deci & Ryan 2008; Uta & Waterman 2014; Kesebir 2018).

The hedonic approach to happiness has been analysed in positive psychology (Diener 2006, Diener et al. 2006) and the economics of happiness (Kahneman et al. 1999). Both fields of study draw on three validated univariable scales that the main happiness surveys have incorporated, such as The European Social Survey, World Values Survey, and World Gallup Poll, among others. They have also been used in studies that analyse this aspect of subjective well-being concerning material dimensions (Easterlin 1973, 1974, 1995, 2001, 2005; Easterlin et al. 2010; Kahneman & Deaton 2010; Stevenson & Wolfers 2013), and in comparative studies looking at subjective well-being and happiness in Western and Eastern societies (Shin & Lyubomirsky 2017). Accordingly, it should be highlighted and borne in mind that these societies have different sociological foundations, cultural and political systems: in the case of Western societies, linked to protestant ethics (Weber 2012/1904), and in Eastern ones, related to Buddhist (Pennock & Ura 2011) or Confucian ethics (Bell & Mo 2014; Bell 2015).

In terms of univariable scales, Sonia Lyubomirsky (Lyubomirsky & Lepper 1999) advanced a general measurement of happiness self-perception summarised in the Subjective Happiness Scale (SHS), which the

European Social Survey incorporates<sup>1</sup>. Ed Diener (Diener et al. 1985) put together the Satisfaction with Life Scale (SWLS) based on cognitive judgments that people make about how satisfied they are with their own lives. It is summarised in one question, which has been incorporated by the European Social Survey and the World Values Survey (ESS 2016)<sup>2</sup>. Hadley Cantril (1965) created the Cantril Self-Anchoring Striving Scale (Cantril's Ladder), used by the World Gallup Poll (Gallup 2017; Gurley & Harter 2008; Harter & Arora 2008). In this case, each interviewed subject is asked to imagine a ladder with rungs numbered from 0 to 10 and, using that system, to describe the best possible quality of life that they can conceive of for the top of the ladder, and the worst for the bottom rung<sup>3</sup>. Following this line, Martínez Bravo (Martinez-Bravo & Sanz, 2021) used the same type of scale to measure the level of emotional well-being of the respondents<sup>4</sup>.

Using these scales, Richard Easterlin (1973, 1974, 1995, 2001, 2005, et al. 2010) carried out studies on subjective well-being and income, which tried to explain the stability of the perception of happiness relative to changes in income. He concluded that the long-term increase in per capita income has not translated into an increase in average levels of happiness. Furthermore, Daniel Kahneman and Angus Deaton (2010) and Betsey Stevenson and Justin Wolfers (2013) studied aspects of subjective well-being in relation to the level of income beyond which satisfaction or happiness would cease to increase. Richard Wilkinson and Kate Pickett (2009, 2019) reflected on inequality to analyse the causes of what they call collective (un)happiness, where the countries with the highest levels of inequality are those that present greater difficulties and unhappiness.

Along the same line of associating life satisfaction with subjective well-being, Ruut Veenhoven (1984) proposed a definition of (hedonic) happiness that sought to integrate economic and psychological perspectives (Diener 1995, Diener et al. 1985, 1999) based on the following principle: *"Happiness is the degree to which a person evaluates the overall quality of his present life-as-a-whole positively. In other words, how much one likes the life one leads."* (Veenhoven 2001: 69). It should be pointed out that, already in 1970, this author was

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<sup>1</sup> "Generally, to what extent do you consider yourself to be a happy or unhappy person? Please use a scale of 0 to 10 on which 0 means that you feel 'completely unhappy' and 10 means that you feel 'completely happy'."

<sup>2</sup> "Generally, how satisfied are you with your life at the moment?" If 1 means 'completely unsatisfied' and 10 that you are 'completely satisfied', how would you rate your satisfaction with your life in general?"

<sup>3</sup> "Please imagine a ladder with steps numbered from zero at the bottom to ten at the top. Let's suppose that the top of the ladder represents the 'best possible life' for you and the bottom of the ladder represents the 'worst possible life' for you. If the top step is 10 and the bottom one is 0, on which step would you say you are, on a personal level, at this time in your life?"

<sup>4</sup> "In a scale from 0 to 10, where 0 indicates great discomfort or depression and 10 complete happiness, how would you evaluate your level of emotional well-being?"

promoting subjective well-being as a subject matter for sociological study (Veenhoven 1970), considering it to be simultaneously a result of and a driving force behind the social system (Veenhoven 2008).

Sociology of emotions and affect studies in social sciences, initiated in the seventies by Arlie R. Hochschild (1975, 1979), Thomas J. Scheff (1977) and Theodore D. Kemper (1978, 1981), continue to develop to this day (Greco and Stenner 2008; Seigworth et al., 2010). This perspective's main contribution consists of helping us to understand the social nature of human emotions, the complexity of emotional processes, and the emotional nature of social phenomena (Bericat 2016; Bericat & Acosta, 2021; De Sena & Dettano, 2021; Figari & Scribano, 2009; Scribano, 2013; Scribano & Aranguren, 2017).

In the most recent sociological reflection on the matter Eduardo Bericat (2017) analyses the complexity that comes with the notion and the study of happiness, as well as the simplified conclusions that are often arrived at in the attempt to measure it using univariable happiness scales (Lyubomirsky & Lepper 1999; Diener et al. 1985; Cantril, 1965) and various indices related to them (Bericat 2017: 95).

Amitai Etzioni, too, who had introduced the moral and communitarian dimensions to sociological analysis (Etzioni 1988), critically reviews happiness, well-being, and satisfaction measurement scales that are based on self-perception questions and personal evaluation such as "*How happy do you consider yourself?*" and its variants for life satisfaction. Etzioni suggests that *happiness is the wrong metric* (Etzioni 2016, 2018). He also introduces the perspective of the measurement of values (Bachika & Schulz, 2011), particularly altruism, in terms of prioritising others' well-being even to the detriment of one's own (Bykov 2017). To this end, he provides a reflection on pain and discomfort, which are often caused by ethical commitment and individual moral conduct (Etzioni 2016: 15). Also, Sara Ahmed (2010) works with an ethical dimension focusing more on others' happiness than on one's own. Recently, Adrián Scribano (2022) reflects about the connections between altruism and selfishness (Scribano, 2022). They, therefore, add complexity and depth to the study of happiness and, in so doing, open the discussion up to the inclusion of the Nicomachean perspective and reflection on value-centred happiness, including the ethical and moral dimension in a measurement system based around altruism.

In this vein, in light of the described univariable scales (Cantril 1965; Diener et al. 1985; Lyubomirsky & Lepper 1999) used in recent happiness studies (Bericat 2017; Shin & Lyubomirsky 2017) and the multiple indices

developed over the last few years (Afsa et al. 2008; Barrington-Leigh & Escande 2018; Delsignore 2017; Durand 2018; Land & Michalos 2018; Sheck & Wu 2018) it is possible to affirm that much of the current research on happiness is based more on a hedonic perspective rather than on a eudaimonic conception of happiness.

Nevertheless, one-dimensional analysis does not reflect the complexity of human happiness (Abdallah & Mahony 2012; Huppert & So 2009; Vittersø et al. 2010; Bericat 2017). It is subject to material and external factors; it is based on a simplified view (Bericat 2017: 95), and it strays from a value-centred notion of happiness, where fulfilment is awarded or cultivated.

Therefore, we must consider the need to develop a multidimensional sociology of happiness that reflects the affective, ethical and evaluative complexity of human beings and social interrelationships. The incorporation of these complex dimensions will facilitate the analysis of public and social policies from a perspective that does not focus only on economic prosperity (Kittiprapas et al., 2007).

The foregoing aims to demonstrate the value to be found in approaching the study and measurement of happiness from a multidimensional perspective, one which includes ethical, affective and value-based factors. Accordingly, the studies cited concur with the views of the aforementioned scholars Hochschild (1975, 1979), Thomas J. Scheff (1977) and Theodore D. Kemper (1978, 1981), Bericat (2013) and Etzioni (1988). They confirm the importance of incorporating the affective and ethical dimension into the study of human behaviour, as some neurobiology research suggests (Damasio 2003), and studying human happiness as a social phenomenon.

In this regard, and after having carried out a systematic review of the existing instruments to measure happiness (Delsignore et al., 2021), this paper aims to set out a model that allows us to measure happiness in Western societies with consolidated political and welfare systems, based on subjective ethical and affective dimensions of the welfare system, and the value placed on it.

**Conceptual framework of the eudaimonic happiness model: ethics, emotions, and evaluation of the welfare system**

Stiglitz-Sen-Fitoussi Report argued that policy decisions and welfare evaluations should be approached from a broader perspective on well-being and consider metrics derived from self-reports of living conditions (Stiglitz et al. 2009). Similarly, Kittiprapas Report argued that public policies should be conceptualized in terms of happiness, including aspects such as physical, mental, social and spiritual well-being, and not just economic prosperity (Kittiprapas et al., 2007).

To incorporate the *ethical perspective* into the measurement of happiness, we drawn on Shalom H. Schwartz's Theory of Values (Schwartz 1992, 1994, 1996, 2005, 2007, 2010, 2012, 2015; Schwartz et al. 2010). This theory is shaped around ten basic values that make up a continuum of related motivations. These are organised in a circular structure that is recognisable across all cultures (Schwartz 2001, 2003, 2005, 2014, 2017; Rudnev et al. 2018), although they may have different hierarchical structures. In order to make the circular structure of values (Schwartz 2003: 270) more comprehensible, we have decided to present it in this paper, breaking it down into four quadrants: Quadrant 1 corresponds to the values of *achievement*, *power*, and *hedonism*; quadrant 2 represents *self-direction*, *stimulation*, and *hedonism*; quadrant 3 contains *benevolence* and *universalism*; and quadrant 4 has *security*, *conformity*, and *tradition*.

These four quadrants can be in conflict or congruence with each other, according to their position. For example, *benevolence* (quadrant 3) and *power* (quadrant 1) conflict, and they are located at opposite sides of the circular structure, whereas *benevolence* and *universalism* (quadrant 3) are compatible (Schwartz 2003: 269).

From this point of view, to build the eudaimonic happiness model, five values have been selected, which are split into two quadrants. They correspond to *hedonism*, *achievement*, and *power* (quadrant 1), which Schwartz's studies link to egocentric satisfaction, superiority and social esteem, *universalism* and *benevolence* (quadrant 3), related to an interest in the good of others and overcoming selfish interests. As can be seen, the two quadrants are internally congruent and in opposition to each other. The first three values are related to *superiority*, *social esteem* and *egocentric satisfaction*, and an exaggerated exaltation of one's personality, even considering it to be the centre of general attention and activity, which translates into *power*, *achievement* and *hedonism* (Schwartz 2003). The other two (*universalism* and *benevolence*) are related to others' improvement, looking beyond self-interest, in terms of looking after others' best interests even at the expense of one's own.

Following sociology of emotions (Hochschild 1975, 1979; Scheff 1977; Kemper 1978, 1981) and Felicia Huppert and Joar Vittersø's studies on emotional well-being, the eudaimonic happiness model that is set out in this study is based on the notion that happiness is a multidimensional (Vittersø et al. 2003, 2009, 2010, 2016; Huppert & So 2009) and complex (Bericat 2017; Delsignore 2019) phenomenon, following the same line of argument outlined earlier in this paper, where it is maintained that univariable scales do not reflect the complexity of human happiness (Abdallah & Mahony 2012; Etzioni 2016, 2018).

Huppert proposes five critical dimensions of well-being: *evaluative well-being*, *emotional well-being*, *communitarian well-being*, *functioning*, and *vitality* (Huppert et al. 2003, 2005, 2009; Huppert & So 2009, 2013). Of these dimensions, this study's eudaimonic happiness model incorporates three of them. Firstly, *evaluative well-being* includes and resituates personal evaluation of one's well-being through the univariable Subjective Happiness Scale (Lyubomirsky & Lepper 1999) and Satisfaction with Life Scale (Diener et al. 1985). Secondly, there is *vitality*, which considers the energy level individuals possess or if they have restorative rest periods, and finally, *emotional well-being*, which measures emotional states experienced over a recent, set period of time. These may include sadness, joy, calm, or anxiety.

To incorporate the *welfare system evaluation dimension* into the eudaimonic happiness model, we draw on Jacques Thomassen's (2014) work on consolidated Western democracies that have experienced a period of industrialisation and economic prosperity from the second half of the 20th century onwards. We look at the change that this gave rise to in terms of the orientation of people's value systems (Inglehart 1990), to the point that people naturalised the welfare system (Bericat 2012), material well-being or physical security, and gave priority to aspects more related to ownership, self-expression or quality of life (Thomassen 2014; Mau 2004). Thomassen analyses people's satisfaction with the democratic system in the country where they live; he evaluates their perception of the political system and studies the relationship between satisfaction with democracy, political representation, and accountability (Aarts & Thomassen 2008). Therefore, the eudaimonic happiness model includes subjective aspects of the welfare individual (Bericat 2012: 42-44), their satisfaction with and confidence in democracy, the political system, government, and political institutions (Aarts & Thomassen 2008; Thomassen 2014).



By incorporating this dimension which evaluates the welfare system, an element is introduced which differentiates this model in the context of happiness studies, distancing it from other models and indices such as the Gross National Happiness Index (Pennock & Ura 2011), the Harmony Index (Bell & Mo 2014; Bell 2015), or the comparative study of well-being between Western and Eastern cultures and countries (Shin & Lyubomirsky 2017). The latter is based on specific political, cultural and religious factors (Protestant, Buddhist, or Confucian ethics), or the study proposed in the Global Happiness and Well-being Report (Sachs et al. 2018, 2019; Helliwell et al. 2012, 2017, 2018), of a more instrumental nature, that combines the Subjective Happiness Scale (Lyubomirsky 1999) with factors such as income, health, employment or education, proposals for political and socio-cultural contexts that are scarcely applicable in European societies with complex and consolidated democracies and welfare systems.

The next objective is to carry out a factor analysis to observe the relationships between the variables that make up this model and formulate a multidimensional index of eudaimonic happiness drawing on the dimensions established by this process.

### **Materials and methods**

The analysis carried out in the present study uses individual and contextual data on attitudes, values and behaviours of the European population, taken from the European Social Survey's (ESS) international and longitudinal database.

The ESS is carried out biannually and each round collects data from approximately thirty countries. This figure fluctuates from one round to another as the survey is subject to variation in the number of countries participating in each measurement. The survey is financed by the European Science Foundation and the European Commission; it has a clear academic focus and it uses rigorous standards that guarantee the quality of the data obtained. It also establishes stringency requirements, from sample design to the execution of fieldwork in participating countries (ESS 2016), and uses rigorous random probability sampling methods.

On top of that, a minimum response rate of 70% is imposed, and there are rigorous translation protocols. Those surveyed are over fourteen years of age and live in private households, irrespective of their nationality, citizenship, language or legal status. Information is collated through face-to-face interviews that include questions organised in eleven groups of variables: group 1: *Media and social trust*; group 2: *Politics*; group 3:

*Subjective well-being, social exclusion, religion, national and ethnic identity*; group 4: *Immigration* (rotating module); group 5: *Social inequalities in health* (rotating module); group 6: *Gender, year of birth and household grid*; group 7: *Socio-demographic variables*; group 8: *Human values scale*; group 9: *Country*; group 10: *Administrative variables (country, ID numbers, editions)*, group 11: *Design and population weights* (ESS 2014a, 2014b).

Since some groups of variables are permanent and others are rotating (i.e., data from all groups of variables are not collected during all ESS rounds), to perform the analysis presented in this study, we decided to work with round 7 data collected during 2014 and 2015. At the time of writing, this is the last round that incorporates the rotating module of *social inequalities in health* (group 5), which contains variables relevant to this study and key to the model we have built.

For ESS data selection, bearing in mind that we want a validated model applicable to societies that are Western democracies with consolidated welfare systems, one criterion is that only European Union Member States (Austria, Belgium, Czech Republic, Germany, Denmark, Estonia, Spain, Finland, France, United Kingdom, Hungary, Lithuania, Netherlands, Poland, Portugal, Sweden and Slovenia) and members of the Schengen area (Switzerland, Norway and Iceland) (European Commission 2015) have been included. This means that we are working with a database of 37,623 cases, corresponding to the twenty countries that meet the above criterion.

28 variables have been selected that are found in the following groups: group 2: *Politics*, from which questions are included from the *Opinions on political issues* section; group 3: *Subjective well-being, social exclusion, religion, national and ethnic identity*; group 5: *Social inequalities in health* and group 8: *Human values* (ESS 2014a, 2014b) (see supplementary file I).

It should be noted that, as has been explained previously, the ESS incorporates the univariable Subjective Happiness Scale (Lyubomirsky & Lepper 1999) and Satisfaction with Life Scale (Diener et al. 1985). The measurement of the first (*How happy are you?*) is found within group 3, which deals with *Subjective well-being, social exclusion, religion, national and ethnic identity* (ESS 2016); and the second (*How satisfied with life as a whole*) is measured in group 2, *Politics*.

*Statistical analysis*

Firstly, an Exploratory Factor Analysis (EFA) has been done to group all the selected variables from ESS7 into factors. The correlational methodology of the EFA is used to determine the minimum number of common factors required to adequately reproduce the item correlation matrix (Izquierdo et al. 2014). EFA can be used as significant values of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's test of sphericity ( $p < .05$ ) are obtained (KMO = .863 Bartlett,  $p < .000$ ). The oblique (Oblimin) rotation ( $\delta = 0$ ) is used as it is assumed that the resulting factors are minimally related (Morales 2011).

The factors are built using the results of the Factor Analysis. Afterwards, different relationships between said factors are analysed. Finally, a discussion is opened up about the possible inclusion of the ethical, affective and welfare system evaluation dimensions in the measurement of eudaimonic happiness and the construction of an index that takes the obtained results into account is proposed.

In constructing the factors, we have followed the methodology proposed by Decancq and Schokkaert (2014), whereby the result of a subject  $i$  in a dimension  $j$  is the mean of that subject in that dimension. Therefore, the mean of the values of each dimension is calculated, giving results of  $X1, X2, \dots, Xn$  with one value per dimension (see Table 1). As the authors indicate, it is important to highlight that using the averages allows an index to be put together, but it does not detect individual differences or the unequal distribution of happiness within a country (Decancq & Schokkaert 2014: 7).

**Table 1. Information structure for creating the index**

[Insert Table 1 here]

**Results**

The following are the results of the statistical analysis.

*Factorial Analysis*

Five factors are obtained that explain 42.151% of the total variance (see Table 2). These are F1 Positive emotional states (PosE), F2 Political and Welfare System (WelSys), F3 Egocentrism - including *power*, *achievement* and *hedonism* - (Egocm), F4 Negative emotional states (NegE) and F5 Altruism (Altrsm), including *universalism* and *benevolence*.

**Table 2. Exploratory Factor Analysis. Pattern matrix.**

[Insert Table 2 here]

*Composition of factors, structure and formulation of the Multidimensional Index of Happiness (MIH)*

Factor loads >.401 are in bold. (REC)=recoded item. Extraction method: principal axis factoring (PAF). Rotation method: Oblimin with Kaiser normalisation.

*Composition of factors, structure and formulation of the Multidimensional Index of Happiness (MIH)*

Five factors have been obtained from the EFA and they have been constructed according to Decanq y Schokkaert's (2014) aforementioned methodology, with a range from 0 to 10 for each one. Below, the Multidimensional Index of Happiness (MIH) is presented. It includes the factors analysed in the EFA, which corresponds to the happiness model and the proposed dimensions.

$$MIH = 0.2 \times (F1 PosE + F2 WelSys + F4 Altrsm - F3 Egocm - F5 NegE) + 4$$

The formula proposed is the arithmetic mean of the five factors, three of which (*Altrsm: altruism, PosE: positive emotional states and WelSys: evaluation of the political and welfare system*) have a positive sign, while the other two (*Egocm: egocentrism and NegE: negative emotional states*) have a negative sign. This arithmetic mean is calculated by multiplying by 0.2. A 4-point sum score is also included, to adjust the results from individuals to a range of 0 to 10 in the final index result. If this were not done, the range would be from +30 to -20.

## **Discussion**

Current neurobiological research supports social sciences' development in reaching a greater understanding of complex human behaviour and social interactions and relationships (Damasio 2003). It, therefore, supports the eudaimonic happiness model proposed in this paper, when it explains the connection that exists between emotional factors and altruistic behaviour (Krueger et al. 2007; Tricomi et al. 2010; Morishima et al. 2012).

This study demonstrates both strengths and limitations. In terms of strengths, it has allowed the proposed model to be validated for the measurement of eudaimonic happiness, including an ethical dimension (Etzioni 1988, 2018; Schwartz 2012), with values grouped into *altruism* and *egocentrism*, an affective dimension (Bericat

2016; Bericat & Acosta, 2021; De Sena & Dettano, 2021; Figari & Scribano, 2009; Hochschild 1975, 1979; Huppert et al. 2003, 2005, 2009, 2013; Kemper 1978, 1981; Scheff 1977; Scribano, 2013; Scribano & Aranguren, 2017; Vittersø et al. 2003, 2009, 2010, 2016), with *emotional states* divided into *positive* and *negative (or distressing)*, and an evaluative dimension looking at *individuals' trust in and satisfaction with the political and welfare systems* (Thomassen 2014; Aart & Thomassen 2008).

Secondly, the factorial analysis shows that the self-evaluative and univariable happiness scales, traditionally used in positive psychology and economics for measuring happiness - namely the *Subjective Happiness Scale* (Lyubomirsky & Lepper 1999) and the *Satisfaction with Life Scale* (Diener et al. 1985), are situated as two emotional states of joy and satisfaction, respectively, in the factor corresponding to positive emotional states, more than as measurements of a complex state of happiness. Consequently, the model of eudaimonic happiness is built with the three dimensions initially proposed (ethical, affective and welfare system evaluation) analysed through five factors, specifically, factor 1: Positive emotional states, factor 2: Evaluation of the political and welfare system, factor 3: Egocentrism, factor 4: Altruism, and factor 5: Negative emotional states.

Thirdly, from the statistical analysis results, a Multidimensional Index of Happiness (MIH) has been assembled, which integrates the five factors analysed (positive emotional states, evaluation of the political and welfare system, egocentrism, altruism and negative or distressing emotional states).

It should be noted that this index could be of use in the design and evaluation of social policies in societies with consolidated political and welfare systems, drawing on complex measurements based on a model which integrates the five factors listed in the present study. This would be useful when measuring a determined population's subjective dimensions, allowing us to move beyond a dependence on simplistic self-evaluative (ESS 2016; Gallup 2017; Lyubomirsky & Lepper 1999; Martinez-Bravo & Sanz, 2021) or *simple goodness* (Vittersø 2016) happiness rankings. Likewise, it will allow a sustained measurement to be taken over time, from which it will be possible to observe the evolution of eudaimonic happiness within a given population (longitudinal analysis). Besides, it will also be possible to compare countries and within specific periods (transversal analysis), between people and societies, and look at different variables and situations, such as age, gender, education, health, or salary, among others.

As for the study's limitations, the analysis presents the factors identified in the data and the overall index created, but no attention to how this varies across groups or is predicted by other social, political and economic factors is provided. We also would point out that no data were available during its development, neither were there sufficient resources to generate such data, in order to study the relationship between selfish behaviour (exaggerated exaltation of one's personality, considering oneself the centre of attention and general activity, linked to power, achievement and hedonism [Schwartz 2003]), and emotional states (positive and negative).

Thus, through a hypothesis for future research, we understand that it would be relevant to study if people who place importance on elements that make up this factor (egocentrism) would register positive emotional states only while these elements gave positive results. These positive results would be if these people were getting the recognition they expect from others, or the wealth they desire, or the achievements they yearn for, and so forth. Likewise, it should be investigated if they would register negative emotional states when the results obtained in the measurement of these factors were negative (when their egocentric expectations are not met). It would have to be ascertained whether the negative emotional states score would increase in the cases where importance was placed on that factor and, at the same time, recognition was not obtained, in which case measurement would need to be controlled through third variables. Ultimately, to explore the behaviour of and the relationship between these grouped factors, it would be necessary to measure third variables, which would allow access to information about the relationships between factors within the MIH. This is a constructed form of happiness that is shrouded in complexity.

In summary, it is possible to open up a debate and pose questions for future research on whether people with more rich generosity and altruism systems are happier than those who lack them and demonstrate egocentric behaviour. It would be equally interesting to determine whether those who place the most significant value on wealth, recognition, or power (dependent on external, material, and variable factors) experience a rise in suffering or unhappiness when their expectations are not met. In other words, whether they are less happy when these factors decrease. Accordingly, in the absence of contrastable data, in future studies, it would be interesting to measure how eudaimonic happiness varies in individuals and populations and how it increases or decreases when social policies have been developed.

In conclusion, when evaluating public policies, in addition to taking into account the accountability to citizens in the use of public funds by their rulers, the principles of effectiveness and efficiency in the use of public resources and knowing if it reaches its objectives (Pedraja-Chaparro, 2022); it would add value to include the five factors analysed (the MIH). This would move away from the mere self-perception of well-being or happiness, so that public programmes are also based on well-being results rather than mere intuitions. Thus, if these criteria are taken into account by institutions and administrations when designing social and public policies, their application will make people happier.

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**Table 1.**

Information structure for creating the index

	WelSys	PosE	NegE	Altrsm	Egocm	Index
Subject 1	<i>x11</i>	<i>x12</i>	<i>x13</i>	<i>x14</i>	<i>x15</i>	<i>Index1 (x11, x12, x13, x14, x15)</i>
Subject 2	<i>x21</i>	<i>x22</i>	<i>x23</i>	<i>x24</i>	<i>x25</i>	<i>Index2 (x21, x22, x23, x24, x25)</i>
...	...	...	...	...	...	...
Subject n	<i>xn1</i>	<i>xn2</i>	<i>xn3</i>	<i>xn4</i>	<i>xn5</i>	<i>Indicen (xn1, xn2, xn3, xn4, xn5)</i>
Mean						<i>Mean Index by country (Index1, Index2, ..., Index n)</i>

**Source:** Decancq and Schokkaert (2014). Authors' reproduction.

**Table 2**

Exploratory Factor Analysis. Pattern matrix.

	Factor				
	1	2	3	4	5
Subjective happiness (consider yourself happy)	<b>.712</b>	-.150	-.035	.057	-.030
Satisfaction with life (being satisfied with your life)	<b>.623</b>	-.261	-.028	.018	-.025
Feeling happy in the last week	<b>.591</b>	.089	.032	-.001	-.173
Enjoying life	<b>.568</b>	.063	.022	.016	-.185
Trust the country's parliament	-.096	<b>-.792</b>	-.009	.048	-.049
Trust the legal system	-.123	<b>-.780</b>	-.022	.065	-.084
Satisfied with the country's government	.036	<b>-.729</b>	.061	-.075	.033
Satisfied with the country's current economic situation	.139	<b>-.667</b>	.035	-.070	.011
Trust the police	-.059	<b>-.634</b>	-.064	.112	-.052
The current state of the health system	.096	<b>-.548</b>	-.004	-.021	.026
Current state of education	.074	<b>-.539</b>	.027	-.048	.030
Important to Be Successful (Achievement)	-.032	-.006	<b>.737</b>	.039	-.002
Important show skills and be admired (Achievement)	-.030	.030	<b>.663</b>	.055	.009
It's important to be rich, to have a lot of money and expensive things (Power)	-.065	-.021	<b>.628</b>	-.233	-.023
Important to be respected by others (Power)	-.057	.001	<b>.510</b>	.071	-.006
Find every opportunity to have a good time (Hedonism)	.070	-.010	<b>.475</b>	.009	-.010
You want to have a good time (Hedonism)	.123	-.007	<b>.401</b>	.148	.011
Important to help people and care about their well-being (Benevolence)	.069	.021	.046	<b>.632</b>	.056
Important to hear from people who are different from him (Universalism)	.003	-.049	-.003	<b>.606</b>	-.010
Important to be faithful to friends and dedicate yourself to people nearby (Benevolence)	.071	-.020	.069	<b>.598</b>	.025
Important that everyone is treated in the same way and has the same opportunities (Universalism)	-.036	-.004	-.021	<b>.534</b>	-.023
Important to worry about nature and taking care of the environment (Universalism)	-.045	.029	.004	<b>.532</b>	-.024
Feeling depressed	-.109	.018	.027	.008	<b>.681</b>
It's hard for you to do anything	.039	.000	.000	.008	<b>.668</b>
Feeling un-encouraged	.034	.001	-.001	-.055	<b>.639</b>
Feeling sad	-.117	.008	.009	.015	<b>.623</b>
Sleeping restless	.033	.033	-.046	.051	<b>.532</b>
Feeling lonely	-.154	-.004	.024	-.031	<b>.459</b>

Factor loads > .401 are in bold. (REC) = recoded item. Extraction method: principal axis factoring (PAF). Rotation method: Oblimin with Kaiser normalization.