A Collective Theory of Happiness: Words Related to the Word “Happiness” in Swedish Online Newspapers

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Abstract

It may be suggested that the representation of happiness in online media is collective in nature because it is a picture of happiness communicated by relatively few individuals to the masses. The present study is based on articles published in Swedish daily online newspapers in 2010; the data corpus comprises 1.5 million words. We investigated which words were most (un)common in articles containing the word “happiness” as compared with articles not containing this word. The results show that words related to people (by use of all relevant pronouns: you/me and us/them); important others (e.g., grandmother, mother); the Swedish royal wedding (e.g., Prince Daniel, Princess Victoria); and the FIFA World Cup (e.g., Zlatan, Argentina, Drogba) were highly recurrent in articles containing the word happiness. In contrast, words related to objects, such as money (e.g., millions, billions), bestselling gadgets (e.g., iPad, iPhone), and companies (e.g., Google, Windows), were predictive of contexts not recurrent with the word happiness. The results presented here are in accordance with findings in the happiness literature showing that relationships, not material things, are what make people happy. We suggest that our findings mirror a collective theory of happiness, that is, a shared picture or agreement, among members of a community, concerning what makes people happy. The fact that this representation is made public on such a large scale makes it collective in nature.

Introduction

Current and predominant views in a society tend to perpetuate themselves through their recurrent presentation in the media (e.g., newspapers, popular songs). This presentation constitutes a norm or vox populi, which becomes part of our knowledge about the world.1 The representation of current and predominant views in the media can also be seen as a collective expression within a society. It may be suggested that the representation of happiness in online media (e.g., newspapers) is collective in nature because it is a picture of happiness communicated by relatively few individuals to the masses. Along these lines, earlier theories of individual unconsciousness and consciousness have suggested that humans possess a collective level of awareness or knowledge. Carl Jung,2 for example, proposed that humans have a collective unconscious that consists of memories accumulated throughout the history of the human race. These memories are represented in archetypes that are expressed in the symbols, myths, and beliefs found in many cultures, such as the image of a god, an evil force, the hero, the good mother, and the quest for self-unity and wholeness. Similarly, the French sociologist Émile Durkheim coined the term collective consciousness,3 which refers to the shared beliefs and moral attitudes that serve as a unifying force within a society.

By analyzing the co-occurrence of the word “happiness” with other words, the present study examines the question of whether we humans express a collective theory of happiness. We suggest that, from a statistical point of view, because we share experiences with many others, there should be relatively good agreement among members of a society concerning what makes us happy.4 In addition to being expressed in inter- and intrapersonal conversations, this collective theory of happiness in a society might be expressed in newspapers, popular songs and books, movies, and television, and in recent decades, even in blogs and other online media. In this way, the semantic knowledge of and abstract ideas about what makes us happy become current and predominant views of society’s collective theory of happiness, which therefore recursively feeds on itself.5

Current research on happiness, usually based on individuals’ self-reports of their experience of happiness,5 gives a clear picture of what makes people happy.6 By surveying subjective experiences of happiness in a large number of

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individuals, researchers can ensure that the imperfections of one subjective experience measurement cancel out the imperfections of another, that is, the average of the obtained results is closer to the expected value. Of particular interest to our research is the fact that happy individuals always report strong positive social relationships. Indeed, research on widows and divorced people has shown great declines in happiness precisely before and after the loss of a significant other. Also of importance are findings showing only small correlations between income and happiness within nations—the correlations are larger in poor nations, and the risk of unhappiness is much higher for people living in poverty. Moreover, economic growth in most economically developed societies has been accompanied by only small increases in happiness levels. In other words, as long as basic needs are met, money or material things do not seem to increase happiness levels.

The present study investigates what is associated with happiness within a society by looking at how the word happiness is represented in online newspapers. We expected that a collective theory of happiness could be quantified and detailed by investigating the frequency or infrequency of the word happiness (lycka in Swedish) in relation to other words in the same language, thus quantifying the collective picture of “what makes people happy” that is presented simultaneously to large portions of the population. Although measurement of people’s subjective experience of happiness using self-reports is actually a cumulated or a collective result based on a large number of individuals, it is different from the collective theory of happiness we aim to quantify. This is analogous to the difference between commuting to work by public transport and driving your own car, where the former is a collective type of transport available for everyone.

Method

Material

News articles were collected from the 50 largest daily newspapers in Sweden that were published online during 2010. These online newspapers are in most cases also published in printed format, making them representative of public media in Sweden. From these articles, 3,000 articles were randomly collected that included the Swedish word lycka (the “happy” data set), and 3,000 articles were randomly collected that did not include this word (the “neutral” data set).

Statistical treatment

The data were analyzed with words as the basic unit of analysis. In total, there were 1,065,429 words in the “happy” data set, 493,927 words in the “neutral” data set, and 93,093 unique words in both data sets. A frequency vector was generated consisting of the number of occurrences of each unique word in the “happy” data set, and a similar vector was generated for the “neutral” data set. For each unique word, a 2 × 2 chi square test was conducted, consisting of four frequencies: the frequencies of the word in the two data sets, and the number of remaining words in the two data sets. The resulting p values were corrected for multiple comparisons using the Bonferroni adjustment (i.e., multiplying each p value by N). Words that were significant (at the 0.05 level) were selected for further analyses. The resulting significant words were divided into different word classes. Due to the large number of significant words, we find it appropriate to present only information on which words were significant and to order them by increasing p values, where these Bonferroni corrected p values were in the range 0.00000 < p < 0.05.

Here, we present the results for pronouns, proper names, and nouns. Adjectives were omitted because the results for the “happy” data set are rather trivial, that is, they largely included words that are synonyms with happiness (e.g., glad, happy). Verbs related to happiness were largely words that are related to internal states of mind (e.g., wish, think), whereas words not related to happiness were related to actions (e.g., use, write). Prepositions, counting words, conjunctions, and determinators were omitted because they lack semantic content related to the theme of the articles. Foreign words were omitted because they are not representative of the Swedish language.

Results and Discussion

The results are presented in Table 1. Proper names associated with the “happy” data set were almost exclusively names of people, where the Swedish Crown Princess Victoria was the most discriminative word. Moreover, proper names associated with sports, especially soccer, were the most discriminative in the “happy” data set, for example Zlatan, Lagerbäck (the former coach of Sweden’s national soccer team), Drogba, Argentina, and Nigeria. As expected, along with being a sports fan, relationships seem to be part of a collective representation of what makes us happy. Proper names discriminative for the “neutral” data set were almost exclusively company names, where the most significant companies were in the IT field.

Although these results might be inflated by the overrepresentation of the Swedish royal wedding and the FIFA World Cup in the media during 2010, the results with regard to relationships are in accordance with current findings suggesting that happy individuals always report strong positive social relationships. Moreover, the results regarding pronouns show that almost all pronouns discriminated between the data sets, and all of the significant pronouns were associated with the “happy” data set (e.g., I, you, mine, me, yours, and she). There were no pronouns associated with the “neutral” data set.

Also in this vein, the nouns associated with the “happy” data set were largely semantically related to love or people (e.g., people, hug, love, dad, grandma, mom), as well as to sports (e.g., soccer, working out, players). In contrast, the “neutral” data set was associated with nouns representing money or companies (e.g., crowns, millions, billions). These results, together with those on proper nouns in the “neutral” data set, suggest that a collective theory of happiness confirms research showing that people who put more value in love, for example, are happy. As shown by current research on happiness, relationships with others are important, perhaps explaining why words representing relations are recurrent in mass media contexts including the word happiness.
Although our predictions did not account for the association between watching sports and happiness, other researchers have suggested that the enjoyment derived from watching sports in different media might be explained by the suspense (i.e., shifts in both positive and negative affect) experienced by the fans. Nevertheless, the World Cup held during the publication year of the articles used in the present study may have influenced this finding. The most consistent finding was that words representing people or relationships were most recurrent with the word happiness, while words representing money or material things were not associated with this word. This result does not mean that material things make us unhappy, rather that words representing material things are not associated with happiness in the media.

The present study is an addition to recent research on happiness using large data sets of texts. Only complements self-reporting techniques, but also offers an approach to investigating how “what makes us happy” is presented through the mass media to large segments of a society at the same time. Determining whether this representation is implicit (as Jung’s theorized collective unconscious) or explicit is beyond the scope of the present study. However, the representation of “what makes us happy” in the media seems to be an abstract idea that does not leave room for individual theories of happiness or for determining whether focusing in intentional activities is related to a conscious or explicit state of happiness.

### Table 1. Words Discriminating Between Articles Including or Not Including the Word “Happiness”

<table>
<thead>
<tr>
<th>Word classes</th>
<th>“Happy” data set: articles including the word happiness</th>
<th>“Neutral” data set: articles not including the word happiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper nouns</td>
<td>Victoria Tommy Daniel Anna Werner Samuelsson MFF Westling Salem Allsson Jari VM Rydström Runo Thoralf Fakir Mats Kay v75 Kojer Svård Linda Jim Tidholm Lagerbäck Svante Jonsson Johan Nigeria Ifpho Drogba Petri Eva Smith Zlatan Falkohe United Stellan Alice Taylor Kalmar Patrik Falk Bergendahl Degerforts Argentina Gustavsson Eric Fransen Hammarby Astrid Kuba Modo</td>
<td>Google Windows IT iPad iPhone Microsoft Apple EU HP IDG Office Mac Microsoft Intel Sony Asus IBM Google Facebook Strömsund Nokia Apples HTC Oracle Samsung IDC SAP Yahoo TT Eskilstuna Dell Linux Toshiba McAfee Teliasonerang Carnegie +143 more words</td>
</tr>
<tr>
<td>Pronouns</td>
<td>Jag (I) du (you) min (my) mig (me) ni (you) dig (you) det (it) din (yours) hon (she) mitt (mine) mina (mine) han (he) man (one) henne (her) er (you) honom (him) varandra (each other) ditt (yours) dina (yours) hans (his) hennes (hers) oss (us) dem (them) vem (who) vi (we) dom (them)</td>
<td>—</td>
</tr>
<tr>
<td>Nouns</td>
<td>livet (life) människor (people) fråga (question) kram (hug) kärl (love) pappa (dad) kroprinsessan (the Crown Princess) hjärtans (hearts) mormor (grandma) mamma (mom) hälsningar (greetings) dag (day) monarkin (the monarchy) deklarationen (the income tax return) hälsningar (greeting) kungen (the king) krammar (hugs) glädje (joy) fotboll (football) stadion (stadium) johannons (job ad) bröllop (the wedding) brudparet (the wedding couple) dotter (daughter) hjärta (heart) lyckan (the happiness) coach (coach) familj (family) träbare (trainer) deklaration (income tax return) chatten (the chat) träningen (the workout) spelarna (players) sambo (living together) spelare (player) moderator (moderator) muslimer (muslims) piller (pills) prins (prince) son (son) lätten (the song) brollop (wedding) mat (food) familjen (the family) känslor (feelings) barn (children) svar (answer) vänner (friends) talet (the speech) puss (kiss) drömmar (dreams) frågor (questions) mättning (bullying) guld (gold) artist (artist) webbplats (website) lillen (the kid) avdraget (the deduction) tjejer (girls) kärlken (the love) scenen (the stage) karriär (career) längtan (longing) mens (menstruation) lag (team) dröm (dream) landslaget (the national team) make (husband) scen (scene) uppskov (deferred).</td>
<td></td>
</tr>
</tbody>
</table>

Note. The words are divided into the word classes proper nouns, pronouns, and nouns (other word classes are removed). The words are ordered by increasing p values in the range 0.00000 < p < 0.05 and only the approximately 40 most significant words are included. All words are significant following corrections for multiple comparisons. English translation of pronouns and nouns are given in parentheses.
Conclusion

We have quantified and investigated the co-occurrence of words and the word happiness. We suggest that our findings mirror a collective theory of happiness or an agreement among members of a community about what makes people happy: relationships, not money or material things. This theory of happiness is presented to all members of the society through newspapers and other media, making it collective in nature. Nevertheless, although at a societal level people probably understand the influence of close and warm relationships on their own happiness, they might not be consciously aware that such relationships are necessary for happiness.\(^{18}\)

The importance of social relationships to a happy life is indeed epitomized in a simplified and larger-than-life manner in the standard ending of many fairy tales: “...and they lived happily ever after.” Likewise, most people seem to understand that money can’t buy happiness—or love.

\[
\begin{align*}
&I’ll \text{ give you all I’ve got to give} \\
&\text{If you say you love me too} \\
&\text{I may not have a lot to give} \\
&\text{But what I’ve got I’ll give to you} \\
&\text{For I don’t care too much for money} \\
&\text{For money can’t buy me love.}
\end{align*}
\]

The Beatles

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