

A case study in Costa Rica about personal happiness: Does health and family communication have more influence than quantity of money and material goods?

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ABSTRACT

From extensive research on the phenomenon of "*simpatía*", known as a relationship or an affinity between people or things in which whatever affects one correspondingly affects the other, in Latin American countries, many characteristics, such as friendliness and a positive attitude, have been identified. However, despite such positive attitudes, very few studies measured levels of happiness and satisfaction in these communities, specifically Costa Rica. This study measured happiness levels during March-April 2012 in San Ramón, Costa Rica. Created questionnaires measuring happiness levels were distributed to 197 participants (104 M, 92 F, 1 Unknown). A validated questionnaire showed homogeneity to our created questionnaire ($p < 0,0001$). Mean responses relating happiness to "good health" ($\bar{x}=4,73$) and "family communication" ($\bar{x}=4,58$) were greater than responses of "quantity of money made each month" ($\bar{x}=3,49$) or "owning material goods" ($\bar{x}=3,49$) ($p < 0,05$). Mean responses of "having a national army" ($\bar{x}=1,73$) were smaller than responses to "living in nature" ($\bar{x}=4,62$). On terms of gender and sexuality rights, most participants did not support the idea of homosexuality, and while equal gender rights was supported, more women than men felt happier by this concept ($p=0,0004$). The major limitation for this study was limited time, area, and the number of participants.

KEY WORDS

Costa Rica, family communication, good health, happiness levels, income levels, material possessions, *simpatía*.

RESUMEN

La investigación del fenómeno de la "*simpatía*" latinoamericana ha identificado muchas características relacionadas, como amabilidad y una actitud positiva. Sin embargo, pocas investigaciones han medido los niveles de felicidad y satisfacción en estas comunidades, particularmente en Costa Rica. Esta investigación midió los niveles de felicidad en marzo y abril de 2012 en San Ramón, Costa Rica. Creamos cuestionarios para medir los niveles de felicidad, y los distribuimos a 197 participantes (104 hombres, 92 mujeres). El cuestionario validado tiene homogeneidad con el cuestionario creado por nosotros ($p < 0,00001$). Hubo mayor relación de la felicidad con la "buena salud" ($\bar{x}=4,73$) y la "comunicación familiar" ($\bar{x}=4,58$). En cambio, hubo poca relación con "la cantidad de dinero ganado por mes" ($\bar{x}=3,49$) y el "tener cosas materiales" ($\bar{x}=3,49$) ($p < 0,05$). Tuvo mucho menos valor el "tener un ejército nacional" ($\bar{x}=1,73$) que el "vivir rodeado por la naturaleza" ($\bar{x}=4,62$). Muchos participantes no apoyan la idea de la homosexualidad, y aunque hay apoyo a los derechos de ambos sexos, el apoyo es mayor en las mujeres ($p=0,0004$).

PALABRAS CLAVE

Costa Rica, la comunicación en la familia, la buena salud, los niveles de felicidad, ingresos, posesiones materiales, *simpatía*.

The characteristic *"simpatía"* is typically found in people from Latin American cultures, and is classified as a very friendly, helpful, and overall positive response when interacting with strangers and family members (Levine, No-renzayan & Philbrick, 2001). Levine et al. (2001) empirically examined how strangers were more likely to receive help in some cities as opposed to others. Specifically, these researchers created scenarios where help was needed, such as dropping pencils or imitating blind people crossing the street, to see how many pedestrians would actually help him or her. People from cultures known to be high in *"simpatía"*, although not actually measured, were the most helpful in all scenarios examined.

Even though communities with high *"simpatía"* display a high amount of friendly behavior, the individuals that show the positive and friendly behavior do not necessarily feel happy when interacting with or helping others (Matsumoto & Juang, 2008). With this knowledge of how Latin Americans are so helpful and friendly with strangers it would be interesting to venture more into this topic and identify what exactly causes such friendly behavior. Specifically, what particularly causes feelings of happiness and satisfaction in communities that are so positive, where people participate in such amiable behavior.

Other data was collected over the past decade on mental health in Costa Rica. Biesanz et al. (1999) discussed studies in the 90's about Costa Ricans dealing with extreme loneliness. Costa Ricans have a strict view on not suffering or crying, so when very lonely, alcohol use is a means of coping (Biesanz et al., 1999). Despite this common knowledge, only one major study has been done on happiness in Costa Rica, which was the *"Happy Planet Index 2009"* stating that Costa Rica was ranked as the happiest nation (CNN World 2009). However, in general, very few psychological studies have been done, specifically about happiness levels.

With few psychology studies in Costa Rica to compare to our current study, identifying happiness studies in other countries is vital. Hellevik (2003) determined the reason for happiness in several communities within Norway. In particular, Hellevik (2003) wanted to measure the influence of health and family wellness compared to the amount of income made and material possessions owned. Overall, the results supported the hypothesis that health and family wellness would influence levels of happiness more than income and material possessions.

It is important to test the hypothesis of this Norwegian study in Costa Rica because of a lack of happiness studies in Costa Rica. Latin American citizens are generally happier and more positive than in other countries in the world, however, this information is still not completely supported

by other Costa Rican results (Rojas, 2006). It is beneficial to understand which communities experience greater levels of happiness and for which reasons. With this knowledge, communities in non-Latin American countries can work to improve the levels of positive behavior - whether in occupations, family interaction, healthcare, etc.

Although the idea of happiness is complex, considering each individual portrays a different idea of happiness, to understand why certain communities display more positive than negative behavior might be able to be applied to communities that show more negative than positive behavior. While this would be a difficult task to accomplish, this topic could at least be of interest to "community psychologists" to begin creating intervention programs that might help increase happiness levels. Ultimately, of all the benefits of completing this study, the most crucial would be to understand the viewpoint of happiness in this culture to make future connections between what influences these levels of happiness and the obligatory actions of those who demonstrate *"simpatía"*.

The objectives of my study were to replicate the Norway results of Hellevik (2003), compare the questions of my created questionnaire with one another, estimate the relationship of Costa Ricans' happiness stemming from good health and family communication rather than material possessions and monthly salary; and estimate differences in questionnaire question responses between age, gender, family size, and type of job.

METHODOLOGY

Study Area

This study was performed in the area of San Ramón, (10°13'13N, 84°35'20'W). San Ramón is the second largest canton (county) located in Alajuela Province, with an area of 1 018,64km² and a population of roughly 80 000. This city is an important commercial center and activities such as growing coffee, sugarcane, and owning smaller stores have grown in popularity. Specifically, data was collected from the central urban park, surrounding stores, the regional campuses of the University of Costa Rica in San Ramón and two smaller nearby towns of Grecia (10km away) and Piedades Sur (12km away).

Participants

One hundred ninety-seven participants from the San Ramón area participated in the study, with one hundred and four males, ninety-two females, and one participant chose not to answer which gender type. There were eight

age groups total, which include sixteen participants in the "Ages 10-15" group, seventy-eight in the "Ages 16-20" group, twenty-nine in the "Ages 21-24" group, twenty in the "Ages 25-30" group, four in the "Ages 31-35" group, seven in the "Ages 36-40" group, eighteen in the "Ages 41-50" group, and twenty in the "Ages 51 and older" group. For the two population groups, one hundred and thirty-eight were from a small town, while fifty-nine were from a big city. In total, there were one hundred and fifteen students and eighty-two participants with other types of occupations. Twenty-three participants only completed up to primary education, seventy-six completed up to or were currently enrolled in secondary education, eighty-three completed up to or were currently enrolled in a university education, and only two completed a postgraduate education.

Created Questionnaire

The questionnaire took approximately 10min to complete, depending on the speed of the participant. Questionnaires using a Likert scale based on happiness were handed out to participants who differed in age groups, family sizes, occupations, economic status, gender, and education levels (Lim, 2008). Previous studies used a Likert scale of from 1-4, 1-5, 1-7, and even a 1-11 (Lim, 2008).

To keep the created questionnaires as clear and fast as possible for each participant, the same Likert scale that I have been using at my University, which was the BIS-11 and Eysenck Impulsiveness Questionnaire (I7), was used (Claes, Vertommen & Braspenning, 2000). The created questionnaire incorporated both the style from the BIS-11 and Eysenck Impulsiveness Questionnaire and with the influence of the Flanagan Quality of Life Scale, which focuses on levels of satisfaction (Flanagan, 1978) (Appendix A). Specifically, the created questionnaire consisted of two pages; demographic information on the first page, and 21 questions on the second page, asking for a rating for each question of between 1 (Very Unhappy) to 5 (Very Happy).

A slight change was made in one of my questions on the questionnaire. Based on research done on the family life of Costa Ricans, family communication is of extreme importance in this culture (Biesanz et al., 1999). When I gave the original questionnaire to participants, many were confused by the idea of "family wellness", but claimed that "family communication" was very important in their lives. This information influenced my idea to change "family wellness" to make it more specifically "family communication". To be clear, the final question at hand is to identify whether people in Costa Rica feel happier with good health and family communication than with material possessions and the quantity of money made each month.

Validated Questionnaire

To determine if my created questionnaire really measured happiness levels, participants were asked to also answer four questions of a "validated" questionnaire; the *Subjective Happiness Scale* (Lyubomirsky & Lepper, 1999). Each participant answered four questions that were rated on a Likert scale of how much the participant disagreed (1) or agreed (7) with each statement. The purpose of this validated questionnaire was to determine the similarity of results between it and my created questionnaire. Without this validated questionnaire, it would be unclear whether or not the created questionnaire was measuring levels of happiness (See Appendix A).

Translation between Questionnaires

Judy Magnan, an officially licensed translator, agreed to translate both the created and validated questionnaires to Spanish.

Data Collection

Time Duration

Out of a total of 8 weeks, only 3 were used to administer questionnaires to participants. During the first 5 weeks an older version of the created questionnaire was given to 30 participants to test for specifically-needed questionnaire modifications. Before subsequent administration of the modified questionnaire, the Lake Forest College Human Subjects Committee still needed to approve the project, and the idea of adding a validated questionnaire was suggested at this time. After adding the validated questionnaire and receiving approval to begin the administration of both questionnaires to participants, the questionnaires were then translated to Spanish by Judy Magnan.

Escort Assistance

Because of the problem of attracting unwanted and inappropriate attention from men in San Ramón, I needed an escort during the 3 weeks of data collection to reduce bias from each male participant. The escort, Greivin Rojas, one of my advisor's (Daniel Rojas) nephews, helped me find participants in the central urban park, surrounding stores, and the University of Costa Rica regional campus.

Giving Questionnaires to Participants

Participants were randomly selected. Each conversation began with my self-introduction, explaining my study-abroad psychology research, and my appreciation for the individual's participation. I also explained that he or she could leave at any given time, which was included with the instructions of the created and validated questionnaires

as well. While the participant answered questions on the questionnaires, I gave him or her enough privacy to complete them, however, I was available to answer any necessary questions. After questionnaire completion, I thanked the participant and asked for any questions, as well as explained the purpose of the study. In my search for other participants, I eliminated those that looked upset or busy. I did not want to cause any stress to the individual which could affect the results.

Data Analysis

Since the validated questionnaire used a Likert scale of 1 to 7, each response was multiplied by 5/7, except for any responses of 1. This compressed the 1 to 7 scale to an equivalent 1 to 5 scale, the same used in the created questionnaire. All responses to the 21 questions of the created questionnaire were averaged for each of the 197 participants. A similar mean was calculated for the four questions of the validated questionnaire for each participant. The calculated means were compared between questionnaire types with a one-way, parametric ANOVA. The relationship of means of both questionnaires was analyzed also with a parametric linear regression (validated questionnaire means were defined as the independent variable).

Differences between mean responses of the 21 questions of the created questionnaire were estimated with a one-way, parametric ANOVA. Differences between mean responses of certain questions were estimated between levels of factors such as job type, residence, family size, age class and gender by the same procedure. Cohen's *d* was used to estimate an index of "effect size" of certain tests when appropriate. Parametric ANOVAs were only used after assuring compliance with normality and homogeneity of variance. Statistical tests were run with Statgraphics Centurion XVI (Statpoint Technologies, Inc., www.statgraphics.com/statpoint.htm).

RESULTS

Validation of Questionnaires

Overall mean response for the created questionnaire was a little greater ($\bar{x}=4,20$) than for the validated questionnaire ($\bar{x}=3,90$) ($F=745$; $df=1, 393$; $p<0,0001$), but not a practical, relevant difference ($0,3$; Cohen's $d=0,60$ medium effect size) Additionally, in there was a strong positive relationship of created questionnaire means with validated questionnaire means ($F=4,70$; $df=1, 194$; $p<0,0001$; $R^2=2,37\%$).

Created Questionnaire

The Four Important Questions

Appendix 1 (available in the online version of this journal) shows the overall comparison of mean responses between the 21 questions of the created questionnaire. Mean response for "good health" ($\bar{x}=4,73$) and "family communication" ($\bar{x}=4,58$) were greater than for the questions dealing with "monthly salary" ($\bar{x}=3,49$) and "owning material goods" ($\bar{x}=3,49$) ($F=102$; $df=20, 4083$; $p=0,0001$). There were other major differences in the created questionnaire, which included "having a national army" ($\bar{x}=1,73$, lowest mean) and "living in nature" ($\bar{x}=4,62$, second greatest mean).

Job Types

Students were happier ($\bar{x}=4,32$) with the concept of cheap healthcare than participants of other job types ($\bar{x}=4,06$), $F=4,31$; $df=1, 192$; $P=0,0393$. Students were happier ($\bar{x}=4,82$) with maintaining good health than participants with others jobs ($\bar{x}=4,61$), $F=3,77$; $df=1, 195$; $P=0,0535$. Students were happier ($\bar{x}=4,43$) with having neighborhood security than other participants ($\bar{x}=4,11$) ($F=6,35$; $df=1, 194$; $p=0,0126$). Participants with other jobs were happier ($\bar{x}=3,66$) with the quantity of money made each month than students ($\bar{x}=3,38$) ($F=4,18$; $df=1, 191$, $p=0,0424$). Students were happier ($\bar{x}=4,72$) with having equal gender rights than those with other types of jobs ($\bar{x}=4,33$) ($F=13,76$; $df=1, 194$, $p=0,0003$).

Family Size

Participants with family sizes of 8-10 members were the happiest ($\bar{x}=4,40$) with the quantity of money made each month, closely followed by participants with 1-3 members ($\bar{x}=3,45$) and 4-7 members ($\bar{x}=3,53$). However, participants in the larger family sizes (11 members or more), were most unhappy with the quantity of money made ($\bar{x}=2,00$) ($F=2,47$; $df=3, 183$, $p=0,0637$). Participants with 11 or more family members were the happiest with having neighborhood security ($\bar{x}=5,00$), but participants with 1-3 family members ($\bar{x}=4,01$) and 8-10 family members ($\bar{x}=4,00$) were the unhappiest ($F=3,57$; $df=3, 186$, $p=0,0152$).

Age

Early teens were happiest ($\bar{x}=4,81$) with family communication, but the oldest age bracket of >51 years were the unhappiest ($\bar{x}=4,10$) ($F=2,16$; $df=7, 185$, $p=0,0397$). Participants in their early 30's were happier ($\bar{x}=5,00$) with maintaining better health than the oldest age bracket ($\bar{x}=4,14$) ($F=2,59$; $df=7, 186$, $P=0,0144$). Early teens ($\bar{x}=4,75$) and early 20's ($\bar{x}=4,76$) were happier with equal gender rights

than participants in their late 30's ($\bar{x}=3,71$)($F=3,19$; $df=7, 185$, $p=0,0032$). The youngest age group was happier ($\bar{x}=3,88$) with buying fast food than the oldest age group ($\bar{x}=2,73$) ($F=3,27$; $df=7, 183$, $p=0,0027$).

Participants in their early 30's were happier ($\bar{x}=4,50$) with having financial security than participants in their late 30's ($\bar{x}=3,57$)($F=2,61$; $df=7, 182$, $p=0,0138$). Participants in their early 30's were happier ($\bar{x}=4,50$) with having close friends than participants in their late 30's ($\bar{x}=3,43$) ($F=2,05$; $df=7, 183$, $p=0,0509$). Young teens were happier ($\bar{x}=4,06$) working for money than participants in their early 20's ($\bar{x}=3,14$)($F=1,99$; $df=7, 185$, $p=0,0590$). Participants in their late 20's ($\bar{x}=4,40$) and 40's ($\bar{x}=4,39$) were the happiest with having freedom to practice any religion, and participants in their early 30's were happier ($\bar{x}=4,00$) than participants in their late 30's ($\bar{x}=2,71$)($F=3,24$; $df=7, 184$, $p=0,0029$).

Gender

Males were happier ($\bar{x}=3,81$) with working for money than females ($\bar{x}=3,36$)($F=9,70$; $df=1, 193$, $p=0,0021$). Females were happier ($\bar{x}=4,25$) with having close friends than males ($\bar{x}=3,95$)($F=5,98$; $df=1, 191$, $p=0,0153$). Females were happier ($\bar{x}=4,76$) with having equal gender rights than males ($\bar{x}=4,38$)($F=12,91$; $df=1, 193$, $p=0,0004$).

DISCUSSION

Important Statistical Information about Costa Rica

Much collected statistical information about Costa Rica can provide a better understanding of the Costa Rican lifestyle. There are 4 509 290 total inhabitants in Costa Rica, including 2 287 405 males and 2 221 885 females (Estado de la Nación, 2011). Life expectancy for men is 76,5 years and for women is 81,7 years. Since 2000 unemployment rate increased from 5,2% to 7,8% but employee wages have almost tripled and median monthly wage is about \$500 (Estado de la Nación, 2011).

The percentage of employed and unemployed people covered by universal health care is 67 and 64,3%, respectively. In the past decade, the per capita Gross National Product increased to about US\$6 500. On terms of suicide rates, 1,3% of males but only 2,4% of females committed suicide in 2009, and, overall, the percentages for the whole population have only slightly increased between 2005 and 2009 from 7,7% to 8,2%. Much information has been gathered about this country, as well as a plethora of biological and sociological studies done about the types of jobs, workers, family life, and the lush and plentiful amount of rainforests and creatures.

Personal Health and Familial Well-Being. Most Important to Happiness

The results of a (level of) happiness questionnaire administered by Hellevik (2003) found that personal and familial well-being influenced happiness more than material wealth. Based on the results of the current study (Appendix B), it is clear that both Norwegians and Costa Ricans reported similar influential sources for happiness.

Biesanz et al. (1999) provided supporting evidence why personal and familial well-being influences happiness more than material wealth. Ticos, the local name for Costa Ricans, stress a greater importance on health than on economic status; unsurprisingly, the majority of participants in the present study rated "good health" as "very happy". Ticos work, in particular, under grueling conditions on farms, plantations, and jobs in the tourism industry, for below minimum wage for normal jobs in Costa Rica with no benefits. The wages that should have gone to each worker instead go to foreign companies that sell products from Costa Rica, such as coffee, bananas and pineapple. This imbalance could explain why Costa Ricans are not as happy about economic status or how much money is made. If little money is earned while the amount of work increases, happiness or satisfaction is sure to decrease.

Because of a decline in economic growth during previous years within Costa Rica, advancements in and access to health services have been a primary concern. Most participants in the current study agreed that health influences happiness the most of all the included factors. Some participants even made comments while taking the questionnaire that without good health, work or seeing family members could not happen; thus, their main goal is to remain healthy. Biesanz et al. (1999) talked about people who could not afford to see a doctor for conditions ranging from cancer to the common cold, suggesting that financial ability is a significant barrier to health care access. To help fix this problem, money has been invested in hospitals and medications, information about health has been incorporated into students' education, and health care resources, including better public infrastructure, means to disseminate research, and health care facilities have been created (Biesanz et al., 1999). Health and means to maintain good health are critical components of the Costa Rican culture.

Although there is now more available medication in Costa Rica, few participants felt happy about this development. There is a large amount of people in Costa Rica who do not support the idea of "white man's medication" and prefer natural herbs and prayers instead. There are those who support new medications, but even then many people will either take too much of the medication over

the first few days, or will save the medication for years to save money. Some Ticos also do not necessarily believe in doctors, rather they believe that anyone can diagnose an illness and prescribe which medicine to take (Biesanz et al., 1999).

The results from my questionnaire indicate that family communication influences happiness and, in general, Costa Ricans are deeply attached to their families. Family members often live close to, spend any free time with, and are very affectionate towards one another in public (Biesanz et al., 1999). The ideas of home and family provide a form of security and retreat from life's troubles, and support for each family member is almost a mandatory rule in each household (Biesanz et al., 1999). Overall, family life is a core characteristic of the Costa Rica culture.

Equal Rights Not Seen Equally Between Genders

Most of the participants were happy with having equal rights between genders; however, more women than men supported this idea. Over the past decades, women have slowly gained more respect and control of their rights with about forty feminist groups operating since 1993 to the present, and even now some men are trying to increase the frequency of the usage of "machista", a word of Spanish origin that describes excessive femininity, in the communities (Biesanz et al., 1999). What has not gained support is homosexuality, which was a demographic question in the current study. There was only one individual who claimed to be homosexual, and the majority of other participants laughed when responding to the question. Many participants claimed that they were "normal" and the question should not even exist on the questionnaire. As stated by Biesanz et al. (1999), homosexuality is not an idea that most people in Costa Rica are in favor of, specifically because of the influence of Catholicism, but there are some groups trying to promote the acceptance of homosexuality (Biesanz et al., 1999).

Happiness Not Influenced by Having a National Army

Almost every single participant decided he or she felt "very unhappy" with the idea of having a national army. This lack of a focus on war and maintaining a national army has lead Costa Ricans to focus even more so on other aspects of their culture, such as religion. As Biesanz et al. (1999) stated, many people in Costa Rica have replaced the importance of having a national army with religion. The majority of cities and towns in Costa Rica are named after saints and the religion mostly practiced in this country is Catholicism, which is the official, national religion. Of all the participants in my

study, 166 identified themselves as Christian or Catholic. As can be seen in other cultures as well, Ticos are often known for creating their own version of Catholicism and focusing more on being a good person who can get along with everyone, rather than strictly following the rules (Biesanz et al., 1999). This fact might not necessarily explain whether or not a resident of Costa Rica is happy or unhappy, but it might help explain why residents act more kindly and with a positive attitude towards others.

Living in Nature Can Lead to Happiness

The majority of participants in this study were very happy with living in nature, as opposed to the city lifestyle. This result could be associated with the fact that people obtain Vitamin D through exposure to sunlight, and the amount of sun exposure is more intense in the tropics (Denise, 2012). There is new psychological research that shows evidence that low Vitamin D levels can be linked to depression, and if this research shows consistent results, it might explain why participants prefer living close to nature (Anonymous, 2010). Vitamin D also benefits a person's general health, too. Studies showed greater Vitamin D levels to increase insulin production, calcium levels, bone mineralization, and gives a general boost to the immune system (Anonymous, 2010). Many participants insisted that maintaining good health is vital for their lives, and their naturally greater exposure to more sunlight than in temperate regions may increase Vitamin D production, and may be the cause or a contributing factor to their happiness.

Happy Planet Index Misleading

It is interesting that the publication that influenced my idea for this research project, the Happy Planet Index, did not actually study what I researched (2009). The results of the Happy Planet Index, in 2009, claimed that Costa Rica was the happiest nation, but did not explain what caused these levels of happiness. In reality, the Happy Planet Index instead focused on the ability to maintain long-term well-being in each country (Anonymous, 2009).

Limitations and Suggestions for Future Studies

Before going into the specific limitations of my study, an overall limitation was the lack of communication with my university's Human Subjects Committee. Many changes were made to my project after arriving in Costa Rica, which required me to send any changes to the Human Subjects Committee for approval. There was difficulty with communication for a few weeks, which narrowed the amount of time I could collect data.

One of the primary limitations in this study was the short time frame to complete the project. An 8-week duration is already small enough, however, my actual 3-week duration to collect data almost resulted in not surveying a sufficient number of participants, which was another limitation. Only 197 participants were surveyed, and if more time was allotted, a more accurate representation of the city's population could have been collected instead. Additionally, there was an age and gender bias due to the age groups and genders were not equally represented between the participants.

Another limitation was the limited availability to study in multiple cities around the country. Participants might have displayed different levels of happiness in other parts of Costa Rica, so this study does not give a good representation of the country as a whole. If more cities could be analyzed in a future study, overall happiness of the entire country could be examined.

There were only 21 questions on the created questionnaire, which is too small of a number of concepts to accurately measure a participant's actual level of happiness. To help improve this study, more topics could have been studied, such as the education system, specific family life questions, and treatment at work, views on politics, and plenty of others.

Although an escort was used throughout the data collection, there was still a cultural bias on both how the men and women acted towards the researcher. Men were interested in getting to know the researcher on a personal level, as well as physically touching her, and women became instantly tense and defensive if the researcher approached a boyfriend and girlfriend sitting together. A huge factor contributing to this limitation is that the researcher was female, blond hair, with blue eyes, all of which attract constant attention in this part of the world.

To improve this study, it is highly recommended that the researcher try to blend in more with the general population, or, create a study that compares the differences in how participants treat a young female researcher with blond hair and blue eyes compared to a male or female researcher that looks more similar to a Central American.

Because of the obvious physical differences between the researcher and the participants, more participants wanted to converse and ask questions about the researcher's culture. This took away focus from completing the questionnaires. This uncontrollable bias could be improved in a future study by reminding the participants to remain focused until after completion of the questionnaires. If any conversations still took place, the researcher would only analyze the questionnaires that did not have any influence from the conversations.

Outside factors could have greatly influenced each participant's vision of happiness. Depending on the participant's current life situation, or mood from a current event that occurred the day of data collection, the answers can be biased. The definition of happiness is different for each person to begin with, but an outside factor can influence this view even more so.

Another limitation that could be improved in a future study is collecting data at all times of the day. During the times where the researcher could collect data, many participants were working, in school, busy walking somewhere, and eating. It was too dangerous to walk around at night alone without taking a taxi to each location, which could have eliminated many participants.

This study found that good health and family communication influence happiness more than owning material goods and the quantity of monthly salaries. It is the hope of this paper's authors that this research project was a successful first look at personal happiness in Costa Rica, as well as a good foundation for future research on overall happiness.

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APPENDIX A. Proposed data sheets for study

Created Questionnaire:

Happiness Questionnaire

Thank you for taking the time to complete this questionnaire. Please be aware that completion of this questionnaire is entirely voluntary, meaning you may decline to participate or stop at any time. All responses will be kept confidential.

Gender: M F Other

Age: _____

Family Size: _____

Children: Y N

Monthly income: _____

Annual income: _____

Sexual Orientation: Heterosexual Homosexual Other

Religion: _____

Country of Birth: _____

Town: _____

Living Situation: Single Married Family Married with Family In a Relationship

Financially Support Dependents: Y N

Occupation: _____

How many years of education? Primary Secondary University Graduate Level

Know multiple languages? Y N

If yes, which ones? _____

Please indicate on the questionnaire provided below to what extent you feel happy or unhappy with the following statements.

Statement	Very Unhappy	Unhappy	Neutral	Happy	Very Happy
1. To own a lot of material goods.	1	2	3	4	5
2. To cook dinner at home with fresh food..	1	2	3	4	5
3. To buy fast food.	1	2	3	4	5
4. Financial security.	1	2	3	4	5
5. Bigger sized family.	1	2	3	4	5
6. Not expensive healthcare.	1	2	3	4	5
7. Family communication.	1	2	3	4	5
8. Nature.	1	2	3	4	5
9. Frequent sunshine.	1	2	3	4	5
10. Close friends.	1	2	3	4	5
11. Staying healthy throughout the year.	1	2	3	4	5
12. Participating in community organizations.	1	2	3	4	5
13. Working for money.	1	2	3	4	5
14. Going to school.	1	2	3	4	5
15. Marriage.	1	2	3	4	5
16. Amount of money made each month.	1	2	3	4	5
17. Having a national army.	1	2	3	4	5
18. To have the freedom to practice any religion.	1	2	3	4	5
19. Amount of medications available.	1	2	3	4	5
20. Neighborhood security.	1	2	3	4	5
21. To have equal rights between men and women.	1	2	3	4	5

Subjective Happiness Scale

Instructions to participants: For each of the following statements and/or questions, please circle the point on the scale that you feel is most appropriate in describing you.

1. In general, I consider myself:

1	2	3	4	5	6	7
not a very						a very
happy						happy
person						person

2. Compared to most of my peers, I consider myself:

1	2	3	4	5	6	7
less						more
happy					happy	

3. Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?

1	2	3	4	5	6	7
not						a
at						great
all						deal

4. Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?

1	2	3	4	5	6	7
not						a
at						great
all						deal

Una encuesta acerca de la felicidad

Muchas gracias por aceptar participar en esta encuesta. La participación en esta encuesta es voluntaria, así que no existe ninguna obligación de completarla, si usted considera conveniente no continuar con la misma en cualquier momento, puede hacerlo con toda libertad. Todas las respuestas que aquí se den son confidenciales.

Sexo: M F Otro

Edad: _____

Número de miembros de la familia que viven con usted: _____

Hijos: S N

Ingreso mensual: _____

Ingreso anual: _____

Tendencia u orientación sexual: Heterosexual Homosexual Otro

Religión o credo religioso: _____

País de nacimiento: _____

Pueblo donde vive usted: _____

Situación de convivencia: Soltero/a Casado/a Casado/a con familia

Con miembros de su familia Se encuentra en una relación amorosa

¿Hay personas que dependen económicamente de Ud.? S N

Ocupación: _____

Nivel de Educación: Primaria Secundaria Universidad Programa de Posgrado

¿Habla otros idiomas? S N

Si es así, ¿cuáles? _____

Tomando en cuenta las siguientes afirmaciones, por favor indique en el cuadro con cuáles se siente usted feliz o infeliz, así como los otros rangos que aquí se definen.

Afirmación	Muy Infeliz	Infeliz	Neutral	Feliz	Muy Feliz
1. Tener muchas cosas materiales.	1	2	3	4	5
2. Cocinar la cena en la casa con comida fresca.	1	2	3	4	5
3. Comprar comida rápida.	1	2	3	4	5
4. Tener seguridad financiera.	1	2	3	4	5
5. Tener una familia más grande.	1	2	3	4	5
6. Recibir atención médica sin pagar un alto costo por ello	1	2	3	4	5
7. Comunicación familiar.	1	2	3	4	5
8. Vivir rodeado(a) por la naturaleza.	1	2	3	4	5
9. Días soleados frecuentes.	1	2	3	4	5
10. Tener amigos íntimos.	1	2	3	4	5
11. Tener buena salud durante el año.	1	2	3	4	5
12. Participar en organizaciones en su comunidad.	1	2	3	4	5
13. Trabajar por dinero.	1	2	3	4	5
14. Ir al colegio.	1	2	3	4	5
15. Casarse.	1	2	3	4	5
16. La cantidad de dinero que gana cada mes.	1	2	3	4	5
17. Tener un ejército nacional.	1	2	3	4	5
18. Tener la libertad de practicar cualquier religión.	1	2	3	4	5
19. La cantidad de medicamentos a los cuales tiene acceso.	1	2	3	4	5
20. Seguridad en el barrio o vecindario.	1	2	3	4	5
21. Tener igualdad de derechos entre hombres y mujeres.	1	2	3	4	5

Una escala de felicidad subjetiva

Tomando en cuenta las siguientes afirmaciones, por favor señale el número en la escala del 1 al 7 que lo(la) describe a usted mejor.

1. En general, yo me considero:

1	2	3	4	5	6	7
Una person a no muy feliz						Una person a muy feliz

2. Comparado(a) con la mayoría de mis semejantes, me considero:

1	2	3	4	5	6	7
Menos feliz						Más feliz

3. A algunas personas les gusta la vida a pesar de lo que ocurra, y le sacan el máximo provecho a todo. ¿En qué grado esto lo(la) describe a usted?

1	2	3	4	5	6	7
En absoluto						Mucho

4. En general, alguna gente no está muy feliz. Aunque estas personas no se sientan deprimidas, nunca parecen ser tan felices como pudieran ser. ¿En qué grado esto lo(la) describe a usted?

1	2	3	4	5	6	7
En absoluto						Mucho

APPENDIX B

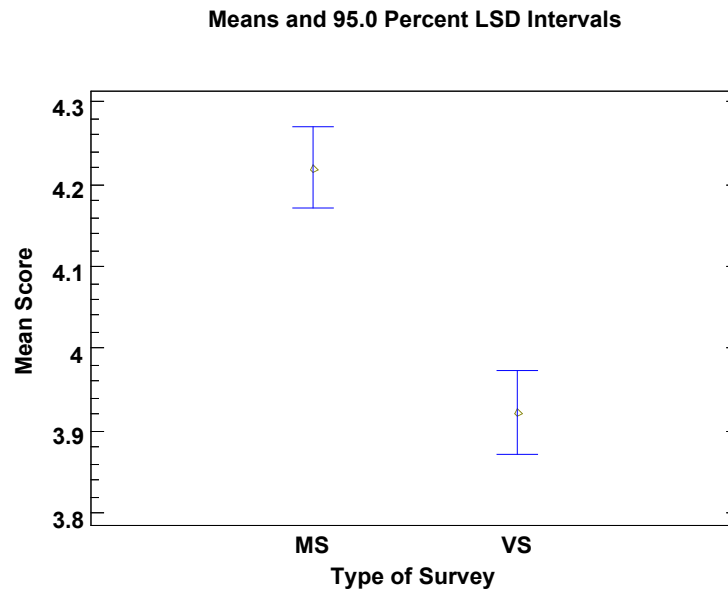


Figure 1. Mean happiness responses of all questions combined between created (MS) and validated questionnaires (VS). San Ramón, Costa Rica. April-May 2012.

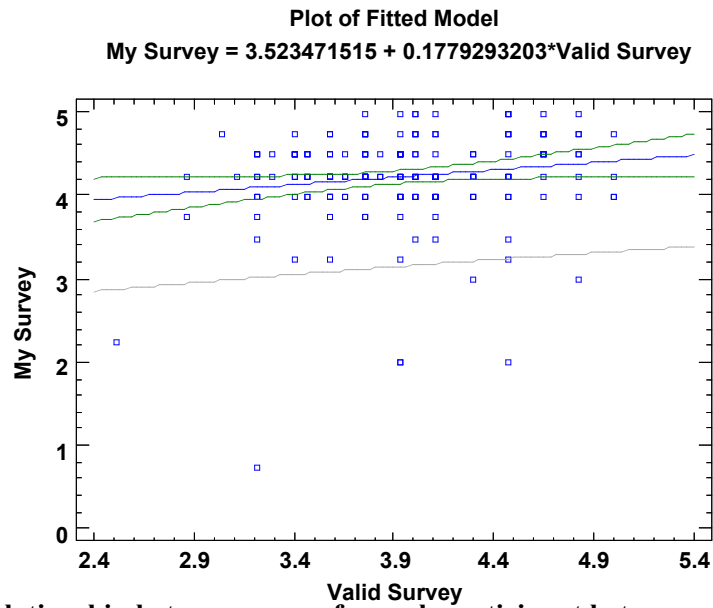


Figure 2. Relationship between means for each participant between validated Questionnaires (independent variable) and created questionnaire (dependent variable). San Ramón, Costa Rica. April-May 2012.

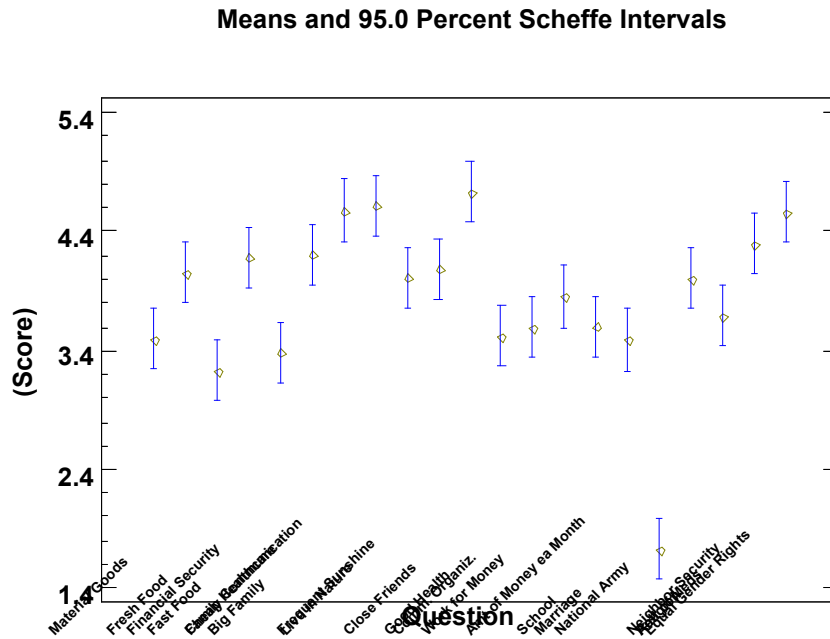


Figure 3. Mean happiness responses of all 21 questions on the created questionnaire. Vertical lines are ± 1 95% Scheffe Confidence Interval. San Ramón, Costa Rica. April-May 2012.

Figure 4. Mean happiness responses for healthcare between job types . San Ramón, Costa Rica. April-May 2012.

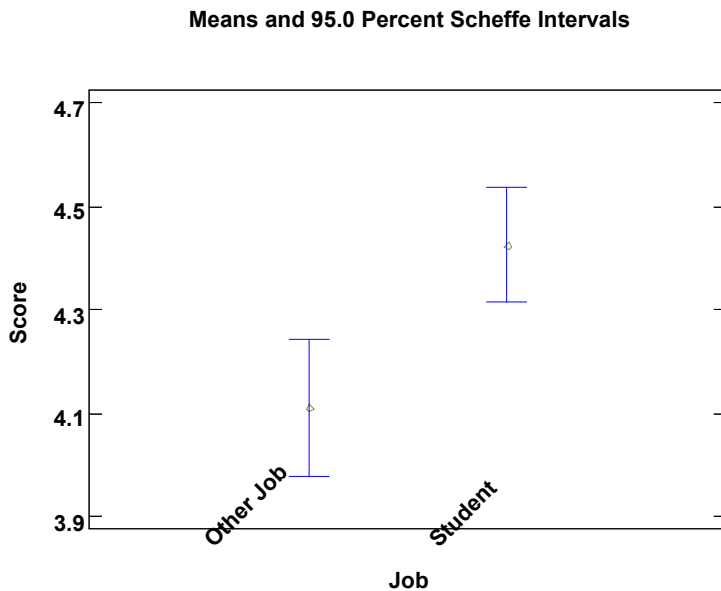


Figure 5. Mean happiness responses for good health between job types. San Ramón, Costa Rica. April-May 2012.

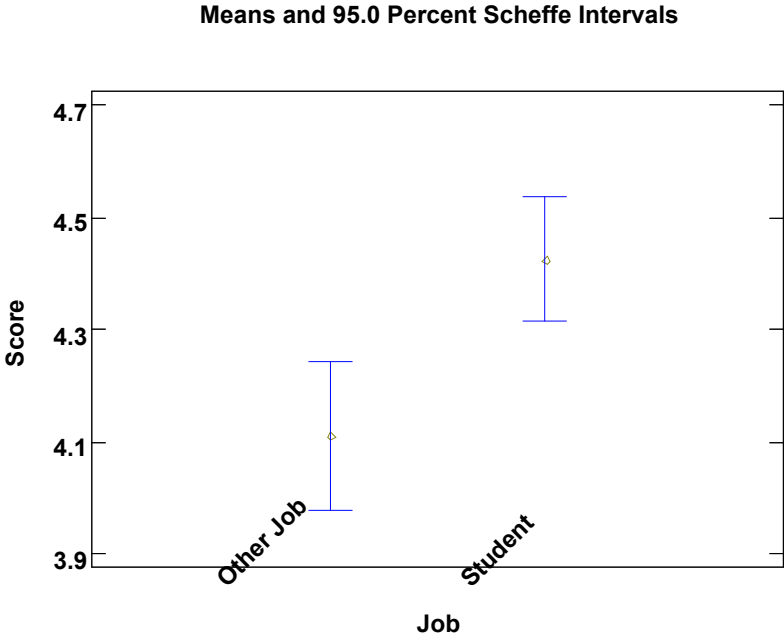


Figure 6. Mean happiness responses for neighborhood security between job types. San Ramón, Costa Rica. April-May 2012.

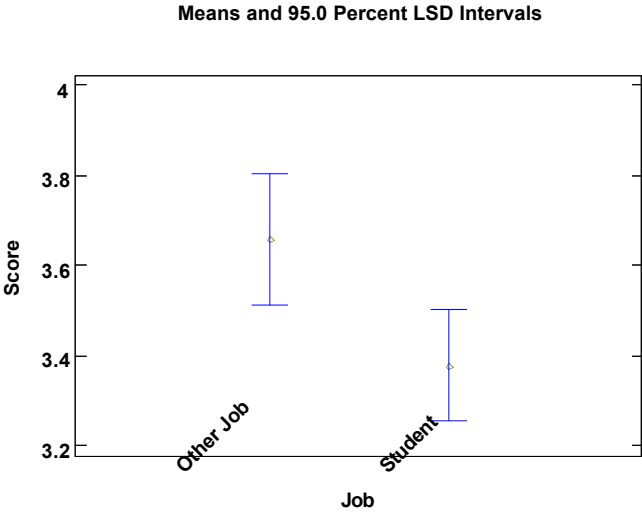


Figure 7. Mean happiness responses for monthly salary between job types. San Ramón, Costa Rica. April-May 2012.

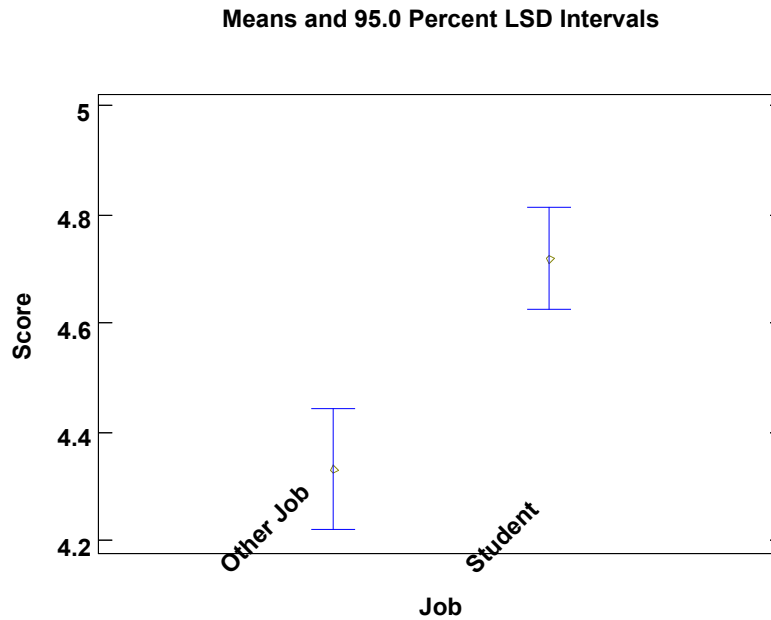


Figure 8. Mean happiness responses for equal gender rights between job types. San Ramón, Costa Rica. April-May 2012.

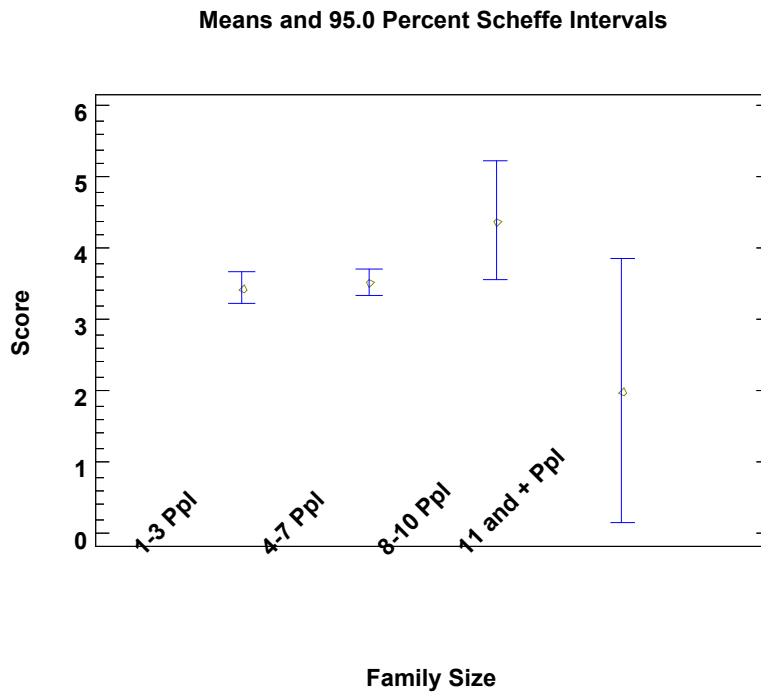


Figure 9. Mean happiness responses for monthly salary between family sizes. San Ramón, Costa Rica. April-May 2012.

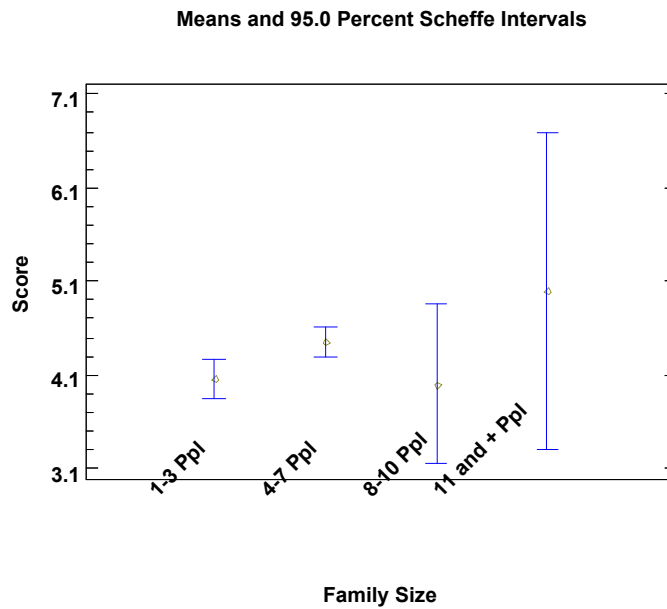


Figure 10. Mean happiness responses for neighborhood security between family sizes. San Ramón, Costa Rica. April-May 2012.

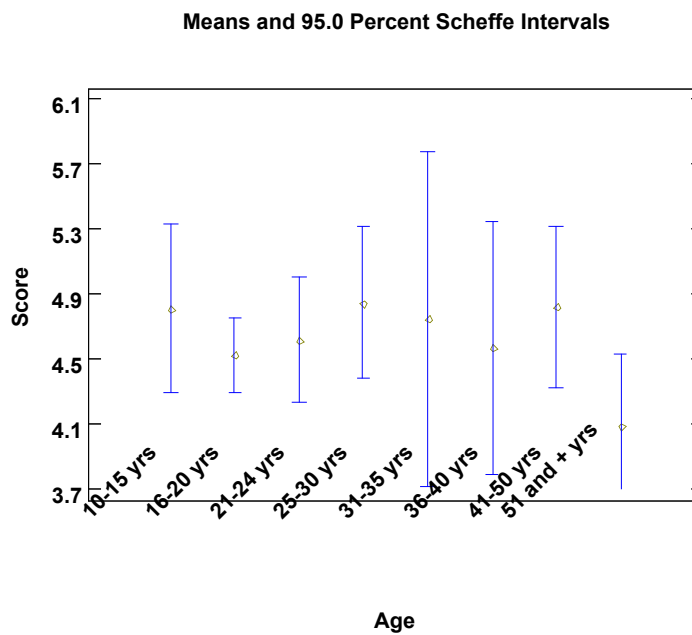


Figure 11. Mean happiness responses for family communication between age groups. San Ramón, Costa Rica. April-May 2012.

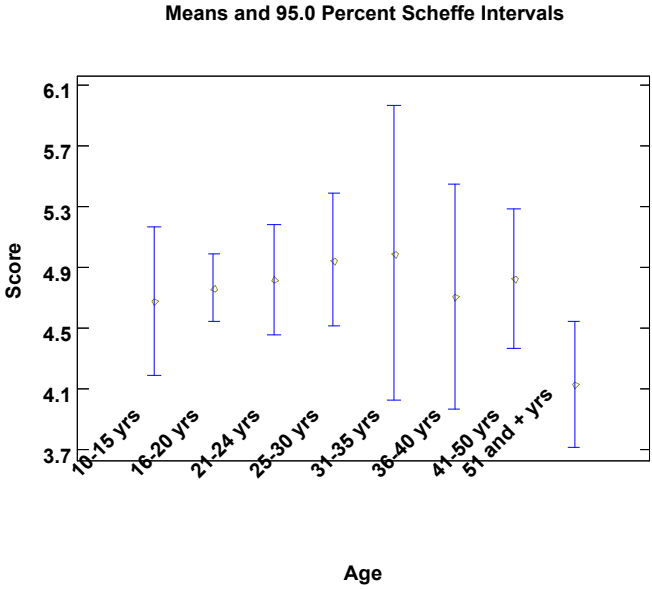


Figure 12. Mean happiness responses for good health between age groups. San Ramón, Costa Rica. April-May 2012.

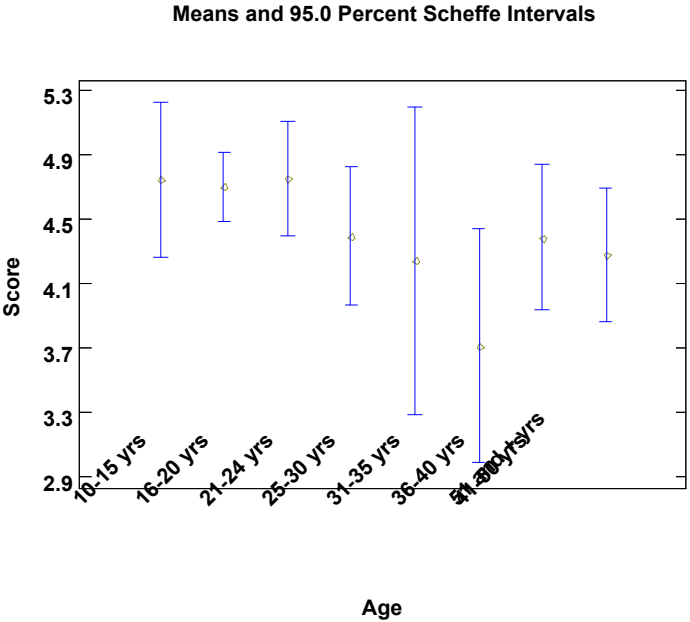


Figure 13. Mean happiness responses for equal gender rights between age groups. San Ramón, Costa Rica. April-May 2012.

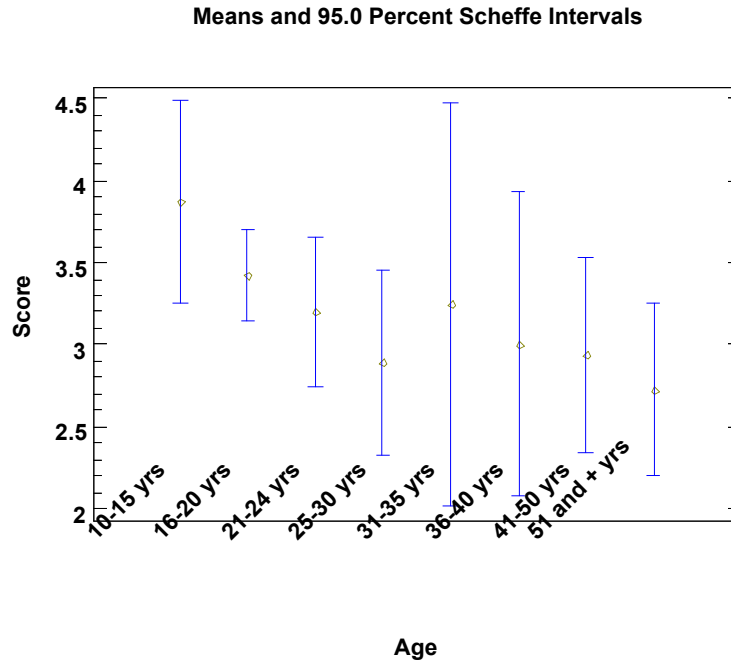


Figure 14. Mean happiness responses for buying fast food between age groups. San Ramón, Costa Rica. April-May 2012.

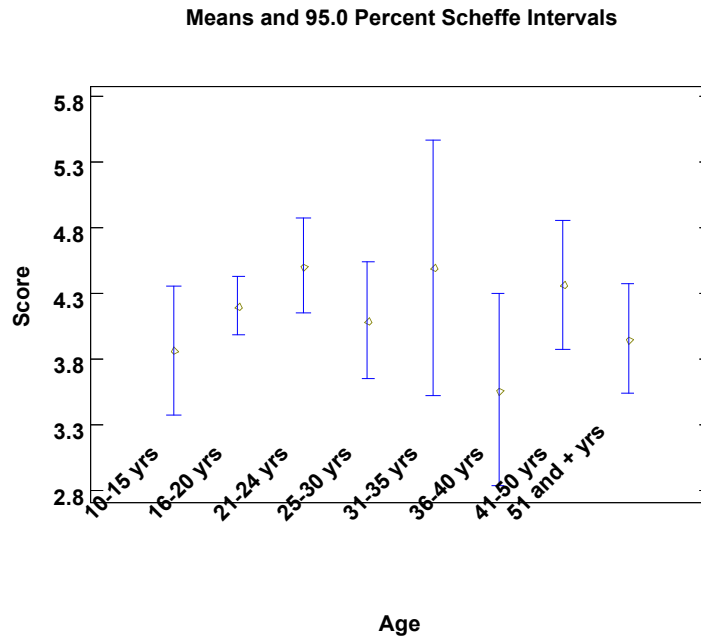


Figure 15. Mean happiness responses for financial security between age groups. San Ramón, Costa Rica. April-May 2012.

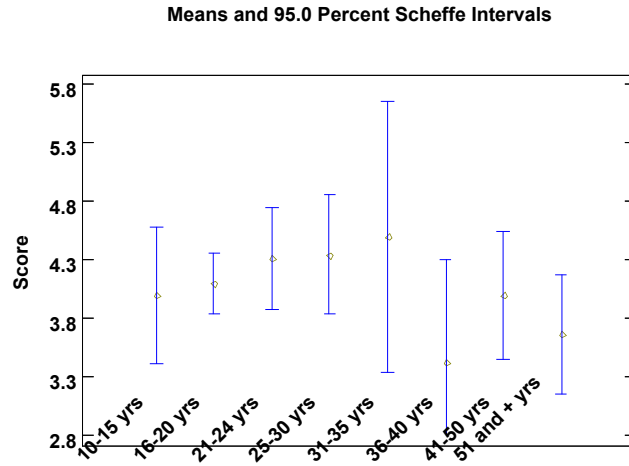


Figure 16. Mean happiness responses for having close friends between age groups. San Ramón, Costa Rica. April-May 2012.

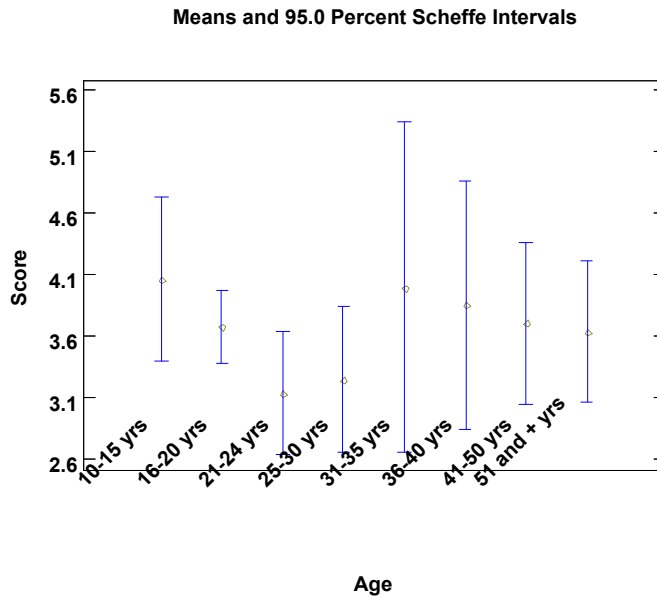


Figure 17. Mean happiness responses for working for money between age groups. San Ramón, Costa Rica. April-May 2012.

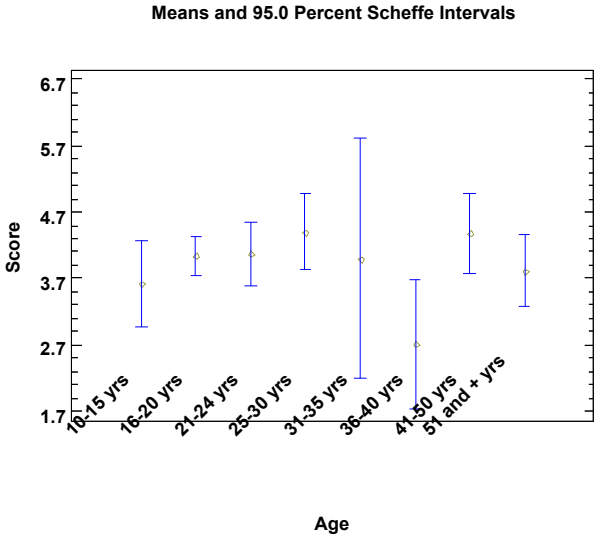


Figure 18. Mean happiness responses for freedom to practice any religion between age groups. San Ramón, Costa Rica. April-May 2012.

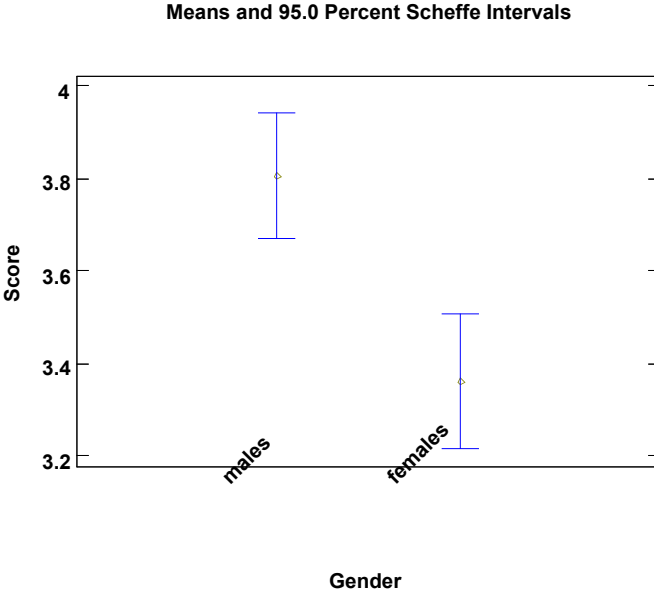


Figure 19. Mean happiness responses for working for money between genders. San Ramón, Costa Rica. April-May 2012.

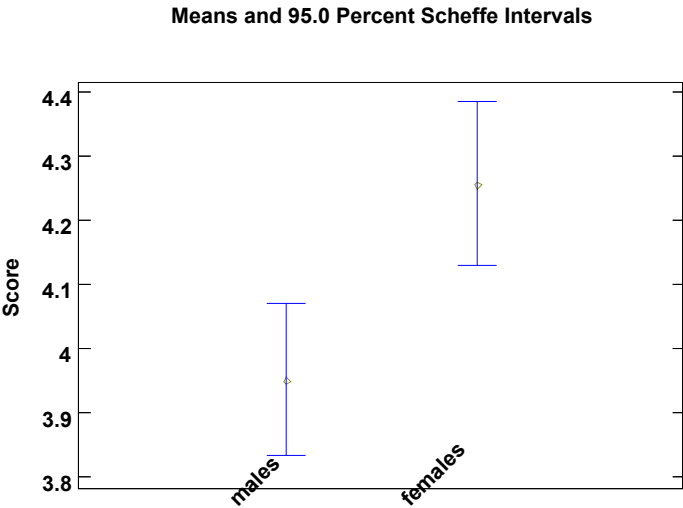


Figure 20. Mean happiness responses for having close friends between genders. San Ramón, Costa Rica. April-May 2012.

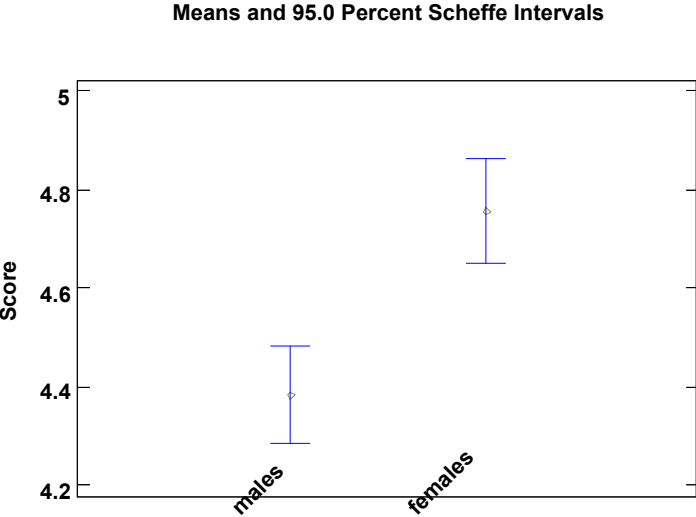


Figure 21. Mean happiness responses for having equal gender rights between genders. San Ramón, Costa Rica. April-May 2012.