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# Marital Satisfaction, Sex, Age, Marriage Duration, Religion, Number of Children, Economic Status, Education, and Collectivistic Values: Data from 33 Countries

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## INTRODUCTION

Forms of committed relationships, including formal marriage arrangements between men and women, exist in almost every culture (Bell, 1997). Yet, similarly to many other psychological constructs (Henrich et al., 2010), marital satisfaction and its correlates have been investigated almost exclusively in Western countries (e.g., Bradbury et al., 2000). Meanwhile, marital relationships are heavily guided by culturally determined norms, customs, and expectations (for review see Berscheid, 1995; Fiske et al., 1998). While we acknowledge the differences existing both between- and within-cultures, we measured marital satisfaction and several factors that might potentially correlate with it based on self-report data from individuals across 33 countries. The purpose of this paper is to introduce the raw data available for anybody interested in further examining any relations between them and other country-level scores obtained elsewhere. Below, we review the central variables that are likely to be related to marital satisfaction.

### Gender

Gender has long been identified in the literature as a predictor of marital satisfaction (Bernard, 1972). Specifically, early works suggested that men report being more satisfied with their marriages compared to women in both Western (e.g., Schumm et al., 1998) and non-Western (e.g., Rostami et al., 2014) cultures. However, sex differences in marital satisfaction may differ across cultures due to traditional sex roles (Pardo et al., 2012) and larger-scale cultural variables, such as sex egalitarianism (Taniguchi and Kaufman, 2013).

### Age

Few studies have explicitly examined age effects on reports of marital satisfaction (see Schmitt et al., 2007). Thus, no clear predictions concerning age-related patterns of results can be derived from the literature. However, in some studies, age was found to be negatively related to marital satisfaction (e.g., Lee and Shehan, 1989). Importantly, age should be examined as a predictor of marital satisfaction with respect to the duration of the marriage.

### Duration of the Marriage

The time that partners have spent together has been shown to correlate with marital satisfaction (Kurdek, 1999; Lavner and Bradbury, 2010). The effect of marriage length on marital satisfaction is negative (it decreases with a relationship length) or U-shaped (it decreases in the beginning and increases after some time) (Karney and Bradbury, 1995; Kurdek, 1999). One could predict that this variable may differ across cultures as, for example, in arranged marriages relationship satisfaction might be lower in the early stages of a marriage (Xiaohe and Whyte, 1990).

### Religiosity

For many cultures, religion is strongly connected to numerous relationship-related values and norms and thus it may be correlated with marital satisfaction (Call and Heaton, 1997; Fincham et al., 2011). Positive associations between religiosity and marital satisfaction have been found across different religious

groups, such as Christians, Jewish, Mormons, and Muslims (Marks, 2005).

### Children

Some previous studies from various cultures revealed contradictory results regarding the correlation between the number of children and marital satisfaction (see Twenge et al., 2003; Onyishi et al., 2012). This suggests that some culture-dependent factors may influence the association between marital satisfaction and the number of children.

### Economic Status

Low income or material hardship is associated with a serious threat to marital quality and stability (Lichter and Carmalt, 2009). However, some studies showed cross-cultural differences in the strength of this association (Kamo, 1993).

### Education

Few studies examine whether education level is related to marital satisfaction. For example, Janssen et al. (1998) found that highly educated women had higher rates of unstable marriages. Using the National Survey of Family Growth data, Heaton (2002) found opposite results, wherein marital dissolution was lower among women who were more educated. Therefore, the findings regarding the association between marital satisfaction and education level based primarily on Western culture are not clear and raise the question of whether such an association exists globally.

### Cultural Considerations (Collectivism vs. Individualism)

The criteria of a satisfying marriage may vary greatly based on one's larger cultural context, specifically on whether the culture primarily identifies as a collectivistic or an individualistic one (Dillon and Beechler, 2010). Collectivistic and individualistic cultures have different cultural norms, values, and familial obligations (Hofstede, 2001). For example, fulfilling familial duties may be beneficial for marital satisfaction in a traditional Chinese marriage (Wang, 1994), whereas fulfilling hedonistic goals of husbands and wives seems to predict marital satisfaction in Western countries (e.g., Lalonde et al., 2004).

The current dataset gathers the data about marital satisfaction and its potential correlates from 33 Western and non-Western countries. We measured gender, age, duration of marriage, religiosity, number of children, economic status, education and individualism/collectivism. The dataset is introduced in order to supplement previous studies conducted typically on Westernized samples.

## MATERIALS AND METHODS

### Participants

Data from 7,767 individuals was collected in 33 countries: Brazil, Bulgaria, Canada, China, Croatia, Estonia, Germany, Ghana, Greece, Hong Kong, Hungary, India, Indonesia, Iran, Italy, Kazakhstan, Kenya, Malaysia, Mexico, Nigeria, Pakistan, Poland, Portugal, Romania, Russia, Saudi Arabia, Slovakia, South Korea,

Spain, Switzerland, Turkey, United Kingdom, and Uganda. All participants were over the age of 18 and were currently married. Due to missing data 589 subjects were excluded. The final sample included data from 7,178 participants. On average, the participants were 40.7 years old ( $SD = 11.4$ ), and the average marriage duration to date was 14.8 years ( $SD = 11.6$ ).

## Procedure

The study was conducted according to the principles of the Declaration of Helsinki. The data were collected from July 2012 to December 2013 by the co-authors and their respective research teams in their home countries. All samples were convenience samples. Depending on the country, students were recruited in different ways (e.g., students, acquaintances of the

researchers, participants of vocational courses, inhabitants of home towns of the researchers etc.). All participants took part in the study on a voluntary basis and provided an informed consent. The procedure across almost all study sites was identical—they completed the paper-and-pencil questionnaires with an approximate time of participation of 30 min, with an exception of two countries (Switzerland and Bulgaria) where some participants filled in the questionnaires online. In general, participants were not compensated for their participation, however participants in Hong Kong were compensated 50 Hong Kong dollars. In countries where more than one person filled in the questionnaire at the same time, we were concerned with their anonymity and the fact that they were not influencing each other. The detailed sampling strategies and research forms are presented for each country separately in **Table 1**.

**TABLE 1 |** Detailed place of the study, recruitment strategy and form of the study.

| Country      | Place of the study                  | Recruitment strategy                                                                                                      | Form of the study   |
|--------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------|
| Brazil       | Natal, Porto Alegre, Rio de Janeiro | Students, their acquaintances and families                                                                                | Group               |
| Bulgaria     | Blagoevgrad, Sofia                  | Students, members of the fitness club, customers in shopping malls, acquaintances of the researcher                       | Individual or group |
| Canada       | Halifax                             | Students                                                                                                                  | Individual          |
| China        | Beijing                             | Students and participants recruited by HR managers of some companies                                                      | Individual or group |
| Croatia      | Zagreb, Rijeka, Osijek, Split       | Students, their acquaintance and families                                                                                 | Individual          |
| Estonia      | Tartu                               | Students, their acquaintance and families, researchers' acquaintances and neighbors                                       | Individual          |
| Germany      | Jena, Friedrichshafen               | People in a public library                                                                                                | Individual          |
| Ghana        | Legon                               | Students, their acquaintance and families, researchers' acquaintances and neighbors                                       | Individual          |
| Greece       | Thessaloniki                        | People at the police station applying for issuing the passport                                                            | Individual          |
| HongKong     | Hong Kong                           | Students, their acquaintance and families                                                                                 | Individual          |
| Hungary      | Pécs                                | Students and people from academic community                                                                               | Individual          |
| India        | Bangalore                           | Working executives on part-time courses                                                                                   | Individual or group |
| Indonesia    | Bandung                             | Students, teachers, lecturers, government employees                                                                       | Individual          |
| Iran         | Tehran, Kermanshah                  | Students, their acquaintance and families, researchers' acquaintances and neighbors                                       | Individual          |
| Italy        | Milan                               | Students, their acquaintances and families, professionals at part-time courses                                            | Individual          |
| Kazakhstan   | Kokshetau                           | Researcher's acquaintances and neighbors                                                                                  | Individual          |
| Kenya        | Nairobi                             | Acquaintances of the researcher and accidentally met people                                                               | Individual          |
| Malaysia     | Kedah, Sintok                       | Students                                                                                                                  | Group               |
| Mexico       | Ciudad de Mexico                    | Students, their acquaintance and families, researchers' acquaintances and neighbors                                       | Individual          |
| Nigeria      | Akungba-Akoko, Benin City, Nsukka   | People at the local government offices, staff from secondary school and their acquaintances                               | Individual          |
| Pakistan     | Karachi                             | University students, faculty members and their families                                                                   | Individual          |
| Poland       | Wrocław, Brzeg                      | Students, their acquaintance and families, researchers' acquaintances and neighbors                                       | Individual          |
| Portugal     | Coimbra, Aveiro, Leiria, Lisboa     | Students, their acquaintance and families                                                                                 | Individual          |
| Romania      | Cluj-Napoca                         | Students                                                                                                                  | Individual or group |
| Russia       | Moscow                              | Students, their acquaintances and families, professionals at part-time courses                                            | Individual          |
| Saudi Arabia | Riyadh                              | Students                                                                                                                  | Individual          |
| Slovakia     | Banská Bystrica, Nitra              | Students and students of the University of the Third Age                                                                  | Group               |
| South Korea  | Seoul                               | Students, acquaintances of the researchers                                                                                | Individual          |
| Spain        | Granada, Valencia                   | Students, their acquaintances and families, acquaintances of the researchers                                              | Individual          |
| Switzerland  | Zurich                              | Students, their acquaintances and families, researchers' workplaces                                                       | Individual or group |
| Turkey       | Ankara, Sivas, Izmir                | Researchers' acquaintances and neighbors                                                                                  | Individual or group |
| U.K.         | Cardiff                             | Researchers' acquaintances, their families, people working in services (stores, travel agencies, foodservice, banks etc.) | Individual          |
| Uganda       | Kampala                             | Students, their acquaintance and families, researchers' acquaintances and neighbors                                       | Individual          |

The original version of the questionnaires were in English, and in all non-English speaking countries the questionnaires were translated into participants' native language by research team members fluent in English using the back-translation procedure (Brislin, 1970). Specifically, the research teams translated the measures into the native language of the participants, and then had a bilingual person back-translate the measures into English. Differences between the original English version and the back-translation were discussed, and mutual agreements were made on the most appropriate translation.

## Measures

### Marital Satisfaction

Marital satisfaction was measured with two scales to ensure that results were not dependent upon the applied questionnaire. In the first step, participants completed the Marriage and Relationships Questionnaire (MRQ) developed by Russell and Wells (1993). Specifically, the 9-item version of the MRQ ("Love Scale") was used because it has been found to be appropriate for cross-cultural use in terms of satisfactory psychometric characteristics (Lucas et al., 2008; Weisfeld et al., 2011). Sample questions from this questionnaire included: "Do you enjoy your husband's/wife's company?"; "Do you enjoy doing things together?"; "Are you proud of your husband/wife?". Participants answered these questions on a 5-point scale, which ranged from 1 (*yes*) to 5 (*no*). A higher number indicated higher marital satisfaction. Secondly, participants completed the Kansas Marital Satisfaction Scale (KMSS; Schumm et al., 1983; Schumm and Bugaighis, 1986), which is also a well-established tool of satisfactory psychometric characteristics (Schumm and Bugaighis, 1986; Crane et al., 2000). The KMSS has previously been validated for studies involving non-Western samples (Shek and Tsang, 1993). The scale contains 3 questions: "How satisfied are you with your marriage?"; "How satisfied are you with your wife/husband as a spouse?"; "How satisfied are you with your relationship with your wife/husband?". Participants answered this questions on a 7-point scale, which ranged from 1 (*very dissatisfied*) to 7 (*very satisfied*). A higher number indicated higher marital satisfaction.

In order to test whether the scales were culturally equivalent, we conducted exploratory factor analysis and then compared factor score loadings obtained in each country with the pooled data using the proportionality coefficient (Tucker's Phi). We also analyzed the reliability of each scale of marital satisfaction (Table 1), and we conducted an exploratory factor analysis in each sample for the MRQ scale. One item ("*Do you love your husband/wife?*") had low factor score loadings for several countries (Romania:  $-0.382$ ; Nigeria:  $0.286$ ; Malaysia:  $0.247$ ; Kenya:  $0.396$ ), so it should be excluded from the further analysis. We then calculated the proportionality coefficient (Tucker's phi) by comparing factor score loadings of the 8-item scale between the pooled data and each sample's factor score loadings separately. The results indicated that the scale was culturally equivalent (Table 2). Cronbach's alpha for the scale calculated on the pooled data was  $0.90$ . Results of this

**TABLE 2 |** Results of the analysis of cultural equivalence of the scale.

| Country        | Cronbach's $\alpha$<br>MRQ scale | Tucker's Phi<br>coefficients<br>MRQ scale | Cronbach's $\alpha$<br>KMSS scale | Tucker's Phi<br>coefficients<br>KMSS scale |
|----------------|----------------------------------|-------------------------------------------|-----------------------------------|--------------------------------------------|
| Brazil         | 0.86                             | 0.99                                      | 0.97                              | 1.00                                       |
| Bulgaria       | 0.91                             | 1.00                                      | 0.76                              | 1.00                                       |
| Canada         | 0.94                             | 1.00                                      | 0.96                              | 1.00                                       |
| China          | 0.88                             | 1.00                                      | 0.93                              | 1.00                                       |
| Croatia        | 0.89                             | 1.00                                      | 0.96                              | 1.00                                       |
| Estonia        | 0.91                             | 1.00                                      | 0.96                              | 1.00                                       |
| Germany        | 0.93                             | 1.00                                      | 0.99                              | 1.00                                       |
| Ghana          | 0.88                             | 0.99                                      | 0.95                              | 1.00                                       |
| Greece         | 0.93                             | 1.00                                      | 0.96                              | 1.00                                       |
| Hong Kong      | 0.94                             | 1.00                                      | 0.98                              | 1.00                                       |
| Hungary        | 0.92                             | 1.00                                      | 0.98                              | 1.00                                       |
| India          | 0.86                             | 1.00                                      | 0.95                              | 1.00                                       |
| Indonesia      | 0.91                             | 1.00                                      | 0.95                              | 1.00                                       |
| Iran           | 0.86                             | 0.99                                      | 0.95                              | 1.00                                       |
| Italy          | 0.83                             | 1.00                                      | 0.92                              | 1.00                                       |
| Kazakhstan     | 0.74                             | 0.98                                      | 0.93                              | 1.00                                       |
| Kenya          | 0.92                             | 1.00                                      | 0.94                              | 1.00                                       |
| Malaysia       | 0.93                             | 0.99                                      | 0.89                              | 1.00                                       |
| Mexico         | 0.91                             | 1.00                                      | 0.97                              | 1.00                                       |
| Nigeria        | 0.87                             | 1.00                                      | 0.87                              | 1.00                                       |
| Pakistan       | 0.89                             | 0.99                                      | 0.87                              | 1.00                                       |
| Poland         | 0.93                             | 1.00                                      | 0.98                              | 1.00                                       |
| Portugal       | 0.89                             | 0.99                                      | 0.98                              | 1.00                                       |
| Romania        | 0.94                             | 0.98                                      | 0.97                              | 0.92                                       |
| Russia         | 0.87                             | 0.99                                      | 0.94                              | 1.00                                       |
| Saudi Arabia   | 0.82                             | 0.98                                      | 0.92                              | 1.00                                       |
| Slovakia       | 0.92                             | 1.00                                      | 0.95                              | 1.00                                       |
| South Korea    | 0.90                             | 1.00                                      | 0.97                              | 1.00                                       |
| Spain          | 0.90                             | 1.00                                      | 0.96                              | 1.00                                       |
| Switzerland    | 0.90                             | 1.00                                      | 0.98                              | 1.00                                       |
| Turkey         | 0.93                             | 1.00                                      | 0.97                              | 1.00                                       |
| United Kingdom | 0.91                             | 1.00                                      | 0.94                              | 1.00                                       |
| Uganda         | 0.89                             | 0.99                                      | 0.98                              | 1.00                                       |

*Tucker's phi coefficients were analyzed by comparing factor score loadings of each country with the pooled data.*

analysis indicated that KMSS scale was reliable and culturally equivalent (Table 2). Cronbach's alpha on the pooled data reached  $0.94$ .

### Potential Predictors of Marital Satisfaction

Participants completed a series of standard questions concerning: (1) gender, (2) age, (3) marriage duration in years (4) number of children and number of raised children, (5) religiosity and religious affiliation, (6) subjective economic status (7) education, (8) individual level of collectivistic values, and (9) cultural level of individualism.

Religiosity was measured using a single item ("Are you religious?"), and responses ranged from 1 (*not at all*) to 7

(*extremely religious*). Economic status was measured by asking participants to rate their material situation on a 5-point scale—1 (*much better than average in my country*), 5 (*much worse than average in my country*).

Perceived level of country Collectivism - Individualism was measured by a scale taken from the GLOBE survey (global study on different variables across 62 countries; House et al., 1999). Because our study concerned family, we used only items regarding familial collectivism (Family Collectivistic Practices; House et al., 1999). This scale was created to test pride in and loyalty to family (and/or organization) and family (and/or organizational) cohesiveness. Sample questions from this scale are: “In this society, parents take pride in

the individual accomplishments of their children,” “In this society, aging parents generally live at home with their children.” Participants answered this sentence on a 7-point scale (from 1—*strongly agree* to 7—*strongly disagree*). We recoded the answers so that a higher number indicated higher collectivism. Because the original items were constructed to test Collectivism on the national level (i.e., “In this society, aging parents generally live at home with their children”), we added also their modified version, measuring collectivism on the individual level (i.e., “I think, aging parents should live at home with their children”). The possible answers in this scale were the same as in its original version (House et al., 1999).

**TABLE 3 |** Descriptive Statistics (average age, marriage duration, education, number of children, marital satisfaction, and collectivistic values).

| Country        | Number of participants |       | Age <i>M</i> ( <i>SD</i> ) | Marriage duration <i>M</i> ( <i>SD</i> ) | Education <i>M</i> ( <i>SD</i> ) | Number of children <i>M</i> ( <i>SD</i> ) | Marital satisfaction MRQ scale <i>M</i> ( <i>SD</i> ) | Marital Satisfaction KMSS scale <i>M</i> ( <i>SD</i> ) | Collectivism-Individualism—national level <i>M</i> ( <i>SD</i> ) | Collectivism-Individualism—individual level <i>M</i> ( <i>SD</i> ) |
|----------------|------------------------|-------|----------------------------|------------------------------------------|----------------------------------|-------------------------------------------|-------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------|
|                | F                      | M     |                            |                                          |                                  |                                           |                                                       |                                                        |                                                                  |                                                                    |
| Brazil         | 180                    | 301   | 36.4 (10.3)                | 10.5 (9.9)                               | 4.57 (0.75)                      | 1.1 (1.2)                                 | 4.64 (0.50)                                           | 17.3 (3.8)                                             | 11.8 (6.0)                                                       | 10.5 (6.5)                                                         |
| Bulgaria       | 39                     | 63    | 38.6 (9.0)                 | 8.8 (6.6)                                | 4.65 (0.77)                      | 1.1 (0.5)                                 | 3.94 (0.61)                                           | 17.2 (1.6)                                             | 8.4 (1.9)                                                        | 10.2 (2.3)                                                         |
| Canada         | 44                     | 25    | 38.7 (10.4)                | 11.8 (9.4)                               | 4.64 (0.57)                      | 0.8 (1.0)                                 | 4.42 (0.82)                                           | 16.7 (5.1)                                             | 12.7 (2.5)                                                       | 16.5 (3.2)                                                         |
| China          | 72                     | 47    | 33.2 (6.4)                 | 7.6 (6.7)                                | 4.49 (1.02)                      | 1.0 (0.5)                                 | 4.47 (0.61)                                           | 17.8 (3.4)                                             | 10.4 (4.4)                                                       | 10.7 (4.2)                                                         |
| Croatia        | 311                    | 300   | 44.6 (11.6)                | 18.0 (11.8)                              | 3.99 (0.98)                      | 1.7 (1.1)                                 | 4.40 (0.60)                                           | 17.3 (3.8)                                             | 12.1 (3.5)                                                       | 11.8 (3.8)                                                         |
| Estonia        | 99                     | 51    | 42.6 (12.2)                | 17.0 (12.6)                              | 4.45 (0.81)                      | 1.9 (1.1)                                 | 4.49 (0.59)                                           | 17.5 (3.7)                                             | 11.9 (3.8)                                                       | 11.0 (3.6)                                                         |
| Germany        | 59                     | 42    | 47.7 (12.5)                | 17.7 (15.3)                              | 4.17 (1.03)                      | 1.7 (1.0)                                 | 4.56 (0.62)                                           | 15.3 (5.8)                                             | 14.3 (3.8)                                                       | 13.7 (3.6)                                                         |
| Ghana          | 50                     | 53    | 40.3 (9.5)                 | 12.0 (9.6)                               | 4.24 (1.06)                      | 2.5 (1.5)                                 | 4.68 (0.50)                                           | 17.7 (4.4)                                             | 8.4 (3.2)                                                        | 8.0 (3.2)                                                          |
| Greece         | 49                     | 46    | 38.8 (9.0)                 | 11.6 (9.8)                               | 4.21 (0.80)                      | 1.5 (1.0)                                 | 4.48 (0.69)                                           | 17.4 (3.8)                                             | 11.1 (3.8)                                                       | 12.6 (4.7)                                                         |
| Hong Kong      | 43                     | 56    | 47.0 (10.0)                | 20.3 (10.5)                              | 3.88 (0.96)                      | 1.5 (1.1)                                 | 4.01 (0.91)                                           | 15.8 (4.9)                                             | 12.0 (2.9)                                                       | 11.6 (3.2)                                                         |
| Hungary        | 161                    | 75    | 37.8 (9.5)                 | 12.6 (9.5)                               | 4.08 (0.93)                      | 1.6 (1.0)                                 | 4.40 (0.67)                                           | 15.9 (4.8)                                             | 19.7 (3.6)                                                       | 18.8 (3.8)                                                         |
| India          | 164                    | 135   | 34.1 (8.0)                 | 7.6 (7.4)                                | 4.94 (0.26)                      | 1.0 (0.8)                                 | 4.75 (0.40)                                           | 18.5 (3.5)                                             | 8.7 (3.6)                                                        | 8.6 (4.3)                                                          |
| Indonesia      | 64                     | 24    | 41.8 (9.6)                 | 16.1 (10.8)                              | 4.51 (0.95)                      | 2.0 (1.1)                                 | 4.58 (0.65)                                           | 18.0 (4.2)                                             | 7.2 (3.4)                                                        | 6.5 (3.3)                                                          |
| Iran           | 342                    | 263   | 38.8 (10.8)                | 15.3 (11.1)                              | 3.68 (1.14)                      | 2.0 (1.5)                                 | 4.09 (0.79)                                           | 16.5 (4.8)                                             | 9.4 (4.0)                                                        | 9.1 (4.2)                                                          |
| Italy          | 193                    | 123   | 48.6 (10.9)                | 24.6 (11.5)                              | 4.0 (0.8)                        | 1.7 (0.9)                                 | 4.61 (0.43)                                           | 18.3 (3.3)                                             | 11.2 (3.2)                                                       | 11.0 (3.7)                                                         |
| Kazakhstan     | 60                     | 60    | 37.0 (8.3)                 | 13.0 (7.4)                               | 4.3 (1.0)                        | 1.9 (0.6)                                 | 4.74 (0.31)                                           | 18.2 (3.2)                                             | 9.2 (3.2)                                                        | 8.0 (3.0)                                                          |
| Kenya          | 47                     | 47    | 32.4 (7.3)                 | 7.6 (6.0)                                | 4.40 (1.0)                       | 1.8 (1.2)                                 | 4.66 (0.57)                                           | 17.1 (3.8)                                             | 10.4 (4.9)                                                       | 10.6 (5.1)                                                         |
| Malaysia       | 50                     | 49    | 40.0 (8.9)                 | 13.5 (9.2)                               | 4.5 (0.7)                        | 2.9 (2.0)                                 | 4.85 (0.36)                                           | 19.4 (2.6)                                             | 8.0 (2.6)                                                        | 6.3 (2.1)                                                          |
| Mexico         | 85                     | 83    | 38.8 (11.4)                | 11.7 (9.8)                               | 4.0 (1.8)                        | 1.6 (1.1)                                 | 4.65 (0.61)                                           | 16.6 (5.0)                                             | 10.0 (3.6)                                                       | 10.32 (4.1)                                                        |
| Nigeria        | 293                    | 310   | 38.9 (9.0)                 | 10.4 (8.8)                               | 4.3 (0.9)                        | 2.5 (1.8)                                 | 4.71 (0.48)                                           | 18.3 (3.7)                                             | 9.2 (4.0)                                                        | 9.6 (4.4)                                                          |
| Pakistan       | 71                     | 60    | 35.9 (10.4)                | 10.3 (9.6)                               | 4.8 (0.6)                        | 1.8 (1.4)                                 | 4.54 (0.56)                                           | 17.7 (3.5)                                             | 8.4 (3.9)                                                        | 8.1 (3.9)                                                          |
| Poland         | 278                    | 166   | 40.5 (11.6)                | 16.3 (11.9)                              | 4.4 (0.7)                        | 1.8 (1.2)                                 | 4.44 (0.69)                                           | 14.8 (4.3)                                             | 10.9 (3.7)                                                       | 10.4 (3.8)                                                         |
| Portugal       | 180                    | 101   | 46.1 (11.0)                | 20.8 (12.2)                              | 3.8 (1.0)                        | 1.6 (0.8)                                 | 4.63 (0.49)                                           | 17.0 (4.8)                                             | 8.7 (3.0)                                                        | 7.1 (2.5)                                                          |
| Romania        | 47                     | 6     | 35.2 (6.8)                 | 8.3 (6.6)                                | 4.9 (0.6)                        | 0.9 (0.8)                                 | 4.31 (0.90)                                           | 16.4 (5.0)                                             | 11.0 (3.7)                                                       | 15.5 (4.9)                                                         |
| Russia         | 103                    | 121   | 38.6 (13.9)                | 13.8 (13.2)                              | 4.6 (0.9)                        | 1.0 (0.8)                                 | 4.48 (0.57)                                           | 16.9 (4.1)                                             | 11.2 (3.3)                                                       | 11.0 (4.3)                                                         |
| Saudi Arabia   | 112                    | 81    | 36.1 (8.3)                 | 12.3 (8.5)                               | 4.6 (0.8)                        | 2.8 (1.7)                                 | 3.91 (0.65)                                           | 15.8 (4.5)                                             | 6.6 (3.1)                                                        | 6.6 (3.4)                                                          |
| Slovakia       | 157                    | 77    | 42.7 (11.8)                | 18.3 (11.9)                              | 4.5 (0.6)                        | 1.8 (1.0)                                 | 4.26 (0.78)                                           | 16.3 (4.6)                                             | 10.8 (3.3)                                                       | 11.2 (3.4)                                                         |
| South Korea    | 50                     | 50    | 41.8 (7.7)                 | 15.0 (8.2)                               | 4.4 (0.6)                        | 1.7 (0.8)                                 | 4.36 (0.56)                                           | 16.7 (3.7)                                             | 11.56 (3.6)                                                      | 10.9 (3.8)                                                         |
| Spain          | 108                    | 92    | 47.1 (9.4)                 | 19.4 (10.1)                              | 3.8 (1.1)                        | 1.8 (0.9)                                 | 4.54 (0.60)                                           | 17.2 (4.0)                                             | 11.5 (3.4)                                                       | 11.1 (3.3)                                                         |
| Switzerland    | 68                     | 104   | 49.4 (12.4)                | 21.7 (13.0)                              | 4.4 (0.6)                        | 2.0 (1.3)                                 | 4.54 (0.55)                                           | 15.9 (5.4)                                             | 15.9 (2.9)                                                       | 15.9 (3.6)                                                         |
| Turkey         | 153                    | 239   | 42.7 (13.6)                | 16.6 (13.8)                              | 4.1 (1.1)                        | 1.7 (1.2)                                 | 4.40 (0.66)                                           | 17.7 (10.0)                                            | 8.7 (3.3)                                                        | 9.6 (4.2)                                                          |
| United Kingdom | 58                     | 42    | 45.0 (11.6)                | 19.4 (13.1)                              | 4.3 (0.7)                        | 1.7 (1.4)                                 | 4.61 (0.47)                                           | 19.0 (2.8)                                             | 12.8 (3.2)                                                       | 10.8 (3.5)                                                         |
| Uganda         | 39                     | 62    | 34.9 (9.9)                 | 8.2 (8.2)                                | 4.1 (1.0)                        | 2.7 (2.1)                                 | 4.49 (0.59)                                           | 16.2 (4.5)                                             | 12.6 (4.1)                                                       | 11.3 (4.4)                                                         |
| In total       | 3,827                  | 3,351 | 40.7 (11.4)                | 14.8 (11.6)                              | 4.2 (0.9)                        | 1.8 (1.3)                                 | 4.47 (0.64)                                           | 17.2 (4.2)                                             | 10.7 (4.5)                                                       | 10.5 (4.7)                                                         |

## Strengths and Limitations

Compared to previously published cross-cultural studies, the present data set has a number of distinctive features: (1) our data set involves thousands ( $N = 7,178$ ) of participants allowing large-scale analyses; (2) we considered five different regions of the world, some of which have only been included in a handful of previous studies (e.g., Onyishi et al., 2012); (3) all participants filled in the same questionnaires and almost all of them followed the same procedures; (4) all participants took part in the study in the same years (2012–2013) to control for any temporal effects; and (5) we measured many variables previously shown to correlate with marital satisfaction. To facilitate the further analyses, we provide basic descriptive statistics of the measured variables (see **Table 3**).

Despite the numerous strengths, our study has some limitations. Firstly, due to sampling procedures it could have been the case that both partners in the relationship completed the survey. There is no way to be certain about this, but it is unlikely that multiple individuals within relationship jointly participated in the study which might potentially cause issues related to the interdependence of the data. However, even if both partners took part in the study, their answers did not influence each other, because when both a wife and a husband were taking part in the research, they were completing their questionnaires separately. We were highly concerned with our participants' anonymity and sincerity. Secondly, our sample might not be fully representative of the participating countries, as data was collected in particular sites.

## Possible Research Paths

Based on the presented dataset, scientists can conduct numerous analyses and publish articles concerning various research questions: they can examine cross-cultural differences in marital satisfaction, identifying other country-level predictors of marital satisfaction or use the measures of individualism/collectivism provided in the dataset. These potential country-level predictors (for example shared values in a culture given or demographic data) are likely to be obtainable from other online sources. These may include for example Schwartz's value orientations (Schwartz, 2006) or Hofstede's culture dimensions (Hofstede, 2001). Further, they can examine the indirect replicability of previously conducted studies of correlates of marital satisfaction. Although differences in marital satisfaction have been investigated in a number of cross-cultural and cross-ethnic studies, due to the vast amount of data from this set, the data may also serve as a reference point in further studies regarding marital satisfaction.

## REFERENCES

- Bell, D. (1997). Defining marriage and legitimacy. *Curr. Anthropol.* 38, 237–253. doi: 10.1086/204606
- Bernard, J. (1972). *The Future of Marriage*. New York, NY: Bantam Books.
- Berscheid, E. (1995). Help wanted: a grand theorist of interpersonal relationships, sociologist or anthropologist preferred. *J. Soc. Pers. Relat.* 12, 529–533. doi: 10.1177/0265407595124005

The dataset can be used for purposes of methodological papers about the validity of existing marriage satisfaction scales (their psychometric properties across different countries).

One previously published study has been based on the presented dataset. Hilpert et al. (2016) found a culturally differentiated association between dyadic coping and marriage satisfaction. They also tested whether gender might moderate the association and found that in some nations the association is higher for men and in other nations it is higher for women.

## Dataset Description

The data discussed in this manuscript have been deposited in Figshare repository and is accessible through the following hyperlink: <https://figshare.com/s/d2bd33a9605a3a204881> under the name: “*Marital, Sex, Age, Marriage Duration, Religion, Number of Children, Economic Status, Education, and Collectivistic Values: Data from 33 Countries*.” The deposit contains two files: (1) Marital satisfaction\_Data, a xlsx file containing the raw data, and (2) Marital satisfaction\_Questionnaire, a doc file containing the questionnaire, along with an exhaustive description of the column labels in the dataset.

## ETHICS STATEMENT

This study was carried out in accordance with the recommendations of Institutional Review Board of the University of Wroclaw with written informed consent from all subjects. All subjects gave written informed consent in accordance with the Declaration of Helsinki. The protocol was approved by the Institutional Review Board.

## AUTHOR CONTRIBUTIONS

All authors listed, have made substantial, direct and intellectual contribution to the work, and approved it for publication. PS, AR, PH, and AS designed the study, PS, AS, AG, TF, KC, AR, PH contributed to the preparation of the manuscript. PS and AS coordinated the project. The rest of the authors collected data.

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- Bradbury, T. N., Fincham, F. D., and Beach, S. R. (2000). Research on the nature and determinants of marital satisfaction: a decade in review. *J. Marr. Fam.* 62, 964–980. doi: 10.1111/j.1741-3737.2000.00964.x
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *J. Cross Cult. Psychol.* 1, 185–216. doi: 10.1177/135910457000100301
- Call, V. R., and Heaton, T. B. (1997). Religious influence on marital stability. *J. Sci. Study Relig.* 36, 382–392. doi: 10.2307/1387856
- Crane, D. R., Middleton, K. C., and Bean, R. A. (2000). Establishing criterion scores for the Kansas marital satisfaction scale and the revised dyadic

- adjustment scale. *Ame. J. Fam. Ther.* 28, 53–60. doi: 10.1080/019261800261815
- Dillon, L. M., and Beechler, M. P. (2010). Marital satisfaction and the impact of children in collectivist cultures: a meta-analysis. *J. Evol. Psychol.* 8, 7–22. doi: 10.1556/JEP.8.2010.1.3
- Fincham, F. D., Ajayi, C., and Beach, S. R. (2011). Spirituality and marital satisfaction in African American couples. *Psychol. Relig. Spiritual.* 3, 259–268. doi: 10.1037/a0023909
- Fiske, A. P., Shinobu, K., Hazel, R. M., and Nisbett, R. E. (1998). “The cultural matrix of social psychology,” in *The Handbook of Social Psychology*, eds D. T., Gilbert, S. T., Fiske, and G. Lindzey (San Francisco, CA: McGraw-Hill), 915–981.
- Heaton, T. B. (2002). Factors contributing to increasing marital stability in the United States. *J. Fam. Issues* 23, 392–409. doi: 10.1177/0192513X02023003004
- Henrich, J., Heine, S. J., and Norenzayan, A. (2010). The weirdest people in the world? *Behav. Brain Sci.* 33, 61–83. doi: 10.1017/S0140525X0999152X
- Hilpert, P., Randall, A. K., Sorokowski, P., Atkins, D. C., Sorokowska, A., Ahmadi, K., et al. (2016). The associations of dyadic coping and relationship satisfaction vary between and within Nations: a 35-Nation Study. *Front. Psychol.* 7:1106. doi: 10.3389/fpsyg.2016.01106
- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations Across Nations*. Thousand Oaks, CA: Sage Publications.
- House, R. J., Hanges, P. J., Ruiz-Quintanilla, S. A., Dorfman, P. W., Javidan, M., Dickson, M., et al. (1999). “Cultural influences on leadership and organizations: project GLOBE,” in *Advances in Global Leadership*, eds W. H. Mobley, M. J. Gessner, and V. Arnold (Stamford, CT: JAI Press), 171–233.
- Janssen, J. P., Poortman, A. R., De Graaf, P. M., and Kalmijn, M. (1998). De instabiliteit van huwelijken en samenwoonrelaties in Nederland. *Mens en Maatschappij* 73, 4–26.
- Kamo, Y. (1993). Determinants of marital satisfaction: a comparison of the United States and Japan. *J. Soc. Pers. Relat.* 10, 551–568. doi: 10.1177/0265407593104005
- Karney, B. R., and Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: a review of theory, methods, and research. *Psychol. Bull.* 118, 3–34. doi: 10.1037/0033-2909.118.1.3
- Kurdek, L. A. (1999). The nature and predictors of the trajectory of change in marital quality for husbands and wives over the first 10 years of marriage. *Dev. Psychol.* 35, 1283–1296. doi: 10.1037/0012-1649.35.5.1283
- Lalonde, R. N., Hynie, M., Pannu, M., and Tatla, S. (2004). The role of culture in interpersonal relationships do second generation South Asian Canadians want a traditional partner? *J. Cross Cult. Psychol.* 35, 503–524. doi: 10.1177/0022022104268386
- Lavner, J. A., and Bradbury, T. N. (2010). Patterns of change in marital satisfaction over the newlywed years. *J. Marr. Fam.* 72, 1171–1187. doi: 10.1111/j.1741-3737.2010.00757.x
- Lee, G., and Shehan, C. L. (1989). Retirement and marital satisfaction. *J. Gerontol.* 44, 226–230. doi: 10.1093/geronj/44.6.S226
- Lichter, D. T., and Carmalt, J. H. (2009). Religion and marital quality among low-income couples. *Soc. Sci. Res.* 38, 168–187. doi: 10.1016/j.ssresearch.2008.07.003
- Lucas, T., Parkhill, M. R., Wendorf, C. A., Imamoglu, E. O., Weisfeld, C. C., Weisfeld, G. E., et al. (2008). Cultural and evolutionary components of marital satisfaction A multidimensional assessment of measurement invariance. *J. Cross Cult. Psychol.* 39, 109–123. doi: 10.1177/0022022107311969
- Marks, L. (2005). How does religion influence marriage? Christian, Jewish, Mormon, and Muslim perspectives. *Marr. Fam. Rev.* 38, 85–111. doi: 10.1300/J002v38n01\_07
- Onyishi, E. I., Sorokowski, P., Sorokowska, A., and Pipitone, R. N. (2012). Children and marital satisfaction in a non-Western sample: having more children increases marital satisfaction among the Igbo people of Nigeria. *Evol. Hum. Behav.* 33, 771–774. doi: 10.1016/j.evolhumbehav.2012.06.005
- Pardo, Y., Weisfeld, C., Hill, E., and Slatcher, R. B. (2012). Machismo and marital satisfaction in Mexican American couples. *J. Cross Cult. Psychol.* 44, 299–315. doi: 10.1177/0022022112443854
- Rostami, A., Ghazinour, M., Nygren, L., and Richter, J. (2014). Marital satisfaction with a special focus on gender differences in medical staff in Tehran, Iran. *J. Fam. Issues* 35, 1940–1958. doi: 10.1177/0192513X13483292
- Russell, R. J. H., and Wells, P. A. (1993). *Marriage and Relationship Questionnaire: MARQ Handbook*. Kent: Hodder and Stoughton.
- Schmitt, M., Kliegel, M., and Shapiro, A. (2007). Marital interaction in middle and old age: a predictor of marital satisfaction? *Int. J. Aging Hum. Dev.* 65, 283–300. doi: 10.2190/AG.65.4.a
- Schumm, W. R., and Bugaighis, M. A. (1986). Marital quality over the marital career: alternative explanations. *J. Marriage Fam.* 48, 165–168. doi: 10.2307/352240
- Schumm, W. R., Nichols, C. W., Schectman, K. L., and Grigsby, C. C. (1983). Characteristics of responses to the Kansas Marital Satisfaction Scale by a sample of 84 married mothers. *Psychol. Rep.* 53, 567–572. doi: 10.2466/pr0.1983.53.2.583
- Schumm, W. R., Webb, F. J., and Bollman, S. R. (1998). Gender and marital satisfaction: data from the National Survey of Families and Households. *Psychol. Rep.* 83, 319–327. doi: 10.2466/pr0.1998.83.1.319
- Schwartz, S. H. (2006). A theory of cultural value orientations: explication and applications. *Comp. Sociol.* 5, 137–182. doi: 10.1163/156913306778667357
- Shek, D. T., and Tsang, S. K. (1993). The Chinese version of the Kansas Marital Satisfaction Scale: some psychometric and normative data. *Soc. Behav. Pers. Int. J.* 21, 205–214. doi: 10.2224/sbp.1993.21.3.205
- Taniguchi, H., and Kaufman, G. (2013). Gender role attitudes, troubles talk, and marital satisfaction in Japan. *J. Soc. Pers. Relat.* 31, 975–994. doi: 10.1177/0265407513516559
- Twenge, J. M., Campbell, W. K., and Foster, C. A. (2003). Parenthood and marital satisfaction: a meta-analytic review. *J. Marr. Fam.* 65, 574–583. doi: 10.1111/j.1741-3737.2003.00574.x
- Wang, L. (1994). Marriage and family therapy with people from China. *Contemp. Fam. Ther.* 16, 25–37. doi: 10.1007/BF02197600
- Weisfeld, G. E., Nowak, N. T., Lucas, T., Weisfeld, C. C., Imamoglu, E. O., Butovskaya, M., et al. (2011). Do women seek humorousness in men because it signals intelligence? A cross-cultural test. *Hum. Int. J. Hum. Res.* 24, 435–462. doi: 10.1515/humr.2011.025
- Xiaohe, X., and Whyte, M. K. (1990). Love matches and arranged marriages: a Chinese replication. *J. Marriage Fam.* 52, 709–722. doi: 10.2307/352936

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