# COLLECTIVISM, MARRIAGE, AND WELL-BEING

How and why the extent to which marriage leads to greater subjective well-being depends on national collectivism

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#### Abstract

The positive relationship between marriage and subjective well-being is a robust finding in the academic field. There is, however, a growing demand for contextualization of this relationship. It is for instance suggested that the influence of marriage on well-being varies across cultures. Although an understanding of these cross-cultural variations is lacking, existing research does provide indications of what cultural trait might play a role in these variations: national collectivism. Since authors remain ambivalent when it comes to pinpointing what role collectivism plays exactly in the well-known relationship between marriage and subjective well-being, this study aims to fill this gap. Based on a thorough review of relevant literature, this study proposes two ways in which the role of collectivism can be understood, to explain why collectivism either strengthens or weakens the wellbeing-effect of marriage. First, a cultural interpretation based on the normative nature of marriage is proposed based on sociological literature on social norms and conformity. Second, adopting a different theoretical approach, marriage is interpreted as a source of social support, resulting in a structural interpretation of the role of collectivism. The role of collectivism and both proposed interpretations are empirically tested using all available rounds (2002-2012) of the European Social Survey (N = 212,683). Multilevel analyses reveal that the relationship between marriage and wellbeing is *weaker* in collectivistic countries, demonstrating the importance of taking cross-cultural variations into account. The analyses also show that neither of the proposed interpretations can sufficiently explain the dampening role of collectivism. Therefore, an alternative interpretation of the findings is offered in the conclusion, to serve as a stepping stone for future research.

Keywords: marriage, well-being, collectivism, individualism, cultural context

Proposed journals

- 1. Journal of Marriage and Family
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- 3. Journal of Family Issues

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#### **INTRODUCTION**

Marriage is widely recognized as a factor that enhances subjective well-being (Diener, Gohm, Suh & Oishi, 2000; Marks & Lambert, 1998; Murray, 2000). Being married has furthermore been found to be correlated with the experience of less mental health problems, such as depression and anxiety (Bierman, Fazio & Milkie, 2006; Frech & Williams, 2007; Koball, Moiduddin, Henderson, Goesling & Besculides, 2010; Simon, 2002). There is, however, a growing debate about the contextualization of this positive relationship between marriage and well-being, resulting in a call for research that investigates potential moderators of the marriage-well-being relationship. Frech and Williams (2007), for instance, advocate examination of the marriage-effect under varying circumstances, as health-benefits might not be conferred universally in every case and for everyone. In addition to individual-level factors, other authors have suggested to examine macro-level characteristics as well. Stack and Eshleman (1998), for instance, insist that cross-national research is of critical importance to contextualizing the relation between marriage and well-being, since there are signs that the relationship between marriage and subjective well-being varies across cultures.

Indeed, indications of cross-cultural variations in this relationship have been found, leading to a growing body of literature that supports the claim that national-level factors play an important role in determining how marriage influences well-being (e.g. Kalmijn, 2010; Vanassche, Swicegood & Matthijs, 2013). This increased adoption of a cross-national approach has, however, not lead to conclusive answers to the question of why such cultural variations in the contributions of marriage to subjective well-being are found (Marshall, 2008). Fortunately, careful examination of research into happiness and well-being does provide some helpful indications of what cultural trait might be responsible for the observed variations in the relationship between marriage and subjective well-being.

As a cultural characteristic that plays an important role in shaping the structure and meaning of family life and social relations in this domain (Hofstede, 1984; Triandis, 1995; Triandis & Suh, 2002; Vandello & Cohen, 1999), collectivism could be a central cultural trait in explaining why the marriage-effect varies across countries. Studies into cross-cultural variations in the meaning of marriage have pointed out that collectivism certainly matters, as it influences how people perceive and experience marriage (Dion & Dion, 1993, 1996).

However, authors remain ambivalent when it comes to pinpointing what role collectivism exactly plays in the well-known relationship between marriage and subjective well-being. While some studies find indications that marriage is especially beneficial to wellbeing in collectivistic countries, for instance because married people experience more social approval in these contexts (see, e.g., Diener et al., 2000), others provide indications for the opposite: marital status is more important for well-being in individualistic countries (see, e.g., Kalmijn (2010) who suggests marriage as a social relationship is 'less necessary' in collectivistic countries).

A possible explanation for such contrasting findings could be sought in the varying focus of studies, which ranges from exploring general cross-national variations in the health-effect of marital status (e.g. Diener et al., 2000; Vanassche et al., 2013) or divorce (e.g. Kalmijn, 2010), to research into specific cultural values and orientations and collectivism (e.g. Dion & Dion, 1993). An additional explanation is offered by Kalmijn (2010), who emphasizes that cultural variations in the relationship between marriage and well-being can only be properly explained when an appropriate multilevel approach is used, something that several studies fail to do.

A question in this context concerns the interpretation of the role of collectivism. If collectivism is found to strengthen or dampen the effect of marriage on subjective well-being, how should we interpret this? Different characteristics of collectivism could be relevant in this respect, ranging from structural arrangements of social resources to variations in the cultural meanings attached to family and marriage. Based on a careful analysis of relevant literature, I propose two different effects of collectivism, accompanied by two corresponding interpretations that could explain why collectivism either strengthens or weakens the effect of marriage on subjective well-being. To test both of these interpretations, two sets of testable hypotheses are developed and presented at the end of the theoretical section. In the empirical section, the proposed interpretations will each be tested, using pooled data from the European Social Survey (2002-2012) and a multilevel approach. Finally, I will discuss the implications of my findings for the wider field of research into marriage, well-being, and cross-cultural variations in the relation between the two, and formulate some recommendations for future research in this area.

## THE ROLE OF NATIONAL COLLECTIVISM: TWO SCENARIOS The normative nature of marriage: A cultural interpretation

As is brought up in the introduction, collectivism is often regarded as a factor that shapes the configuration of, and orientation towards, family life and corresponding relationships such as marriage (see also Hofstede, 1984; Triandis, 1995; Triandis & Suh, 2002; Vandello & Cohen, 1999). More specifically, collectivism is regarded a factor that is characteristic of societies that are more *traditional* in this respect (Georgas, 1989; Hofstede, 1984). A well-known

example is the fact that, in collectivistic countries, older parents more frequently live with, and are cared for by, their relatives (often children) (see, e.g., Pyke & Bengtson, 1996). Additionally, collectivistic countries consistently report lower divorce and higher marriage rates (Triandis, 1995; Triandis & Suh, 2002), which illustrates the more traditional configuration of, and orientation towards, family and family-relationships.

In this section, I will discuss how collectivistic and individualistic orientations towards marriage and family-life are related to marriage and other forms of partnership and, finally, to individual well-being. Generally speaking, the dominant view in extant literature is that variations in social norms on a national level (indicated by collectivism vs. individualism) offer contrasting guidelines for individuals on how to behave (Diener et al., 2000; Suh, Diener, Oishi & Triandis, 1998). It is for instance argued that collectivist societies are mainly guided by social norms aimed at preserving harm ony and following existing traditions (Triandis, 1995), which in turn determines what kind of behaviour is experienced as rewarding by individuals.

In individualistic contexts, however, where norms are based on the notion of individual autonomy and authenticity (Geertz, 1984; Suh et al., 1998), individuals are expected to shape their own lives and construct their own identity (Allik & Realo, 2004), instead of living up to social obligations to maintain harmony and uphold tradition. The collectivistic emphasis on harmony and interpersonal relationships implies that a traditional institution like marriage is encouraged and expected to a larger extent in collectivistic contexts (see Diener et al., 2000), whereas individualistic values would, instead, stimulate personal autonomy and individual freedom (Houtman, Aupers & De Koster, 2011).

In an informal way, the collectivistic emphasis on tradition, consensus, and uniformity (Suh et al., 1998; Triandis, 1995) is for instance expressed in conservative orientations and expectations regarding partnership and family (Sun, Horn & Merrit, 2004), and in dominant social norms stressing the importance of being married (Schwartz, 1994). This orientation is, however, also reflected in other, more official ways: marriage is formalized through legislation. In collectivistic countries, married couples are for instance protected by property and divorce law, granting married couples more security and stability than non-married couples (Hansen, Moum & Shapiro, 2007; Nock, 1995).

Marriage is thus a part of the traditional set of norms in collectivistic countries, to which inhabitants of these countries are encouraged to adhere in both unofficial and official ways. In individualistic countries this is less (or not at all) the case because, as we have seen, more liberal orientations are dominant. In practice, these variations in dominant social norms would mean that people in collectivistic countries are encouraged to get married, and, consequently, rewarded for doing so by social approval and positive evaluations. Cialdini and Goldstein (2004) for instance argue that compliance to injunctive social norms (norms that inform people about what is approved or disapproved) rewards the individual through positive evaluations of others, which in turn has consequences for an individual's emotions and self-concept (see also Stavrova, Fetchenhauer & Schlösser, 2012; Steverink & Lindenberg, 2006). In this sense, marriage can be said to have a normative influence on individual well-being in countries where marriage is the social norm, namely collectivistic countries.

Thus interpreting collectivism as a *cultural* system of (traditional) values and norms, and regarding the normative nature of marriage as a crucial influence on well-being, the role of collectivism in the relationship between marriage and well-being can be summarized as follows: adhering to traditional social norms through marriage is especially rewarding in a country where these norms are dominant. This predicts a stronger subjective well-being-benefit of marriage in collectivistic countries (*hypothesis 1a*). Based on a review of different strands of theory supporting this hypothesis, I will now elaborate on how such a cultural interpretation of the role of collectivism might be tested more strictly by developing a set of corresponding hypotheses.

As sociological literature on social norms suggests, widely shared institutions like marriage are not only expressed in several ways and agreed upon by most, they are also actively maintained and enforced. According to Coleman (1988), this is done by the use of positive and negative sanctions for adhering to and deviating from the norm. An example of such a sanction is exclusion from the in-group, leaving individuals isolated and alienated from their peers (Suh et al., 1998). Aside from such external sanctions for breaking norms, sanctions may also be internal, when individuals are socialized into 'punishing' themselves for breaking the norms with feelings of guilt (Mead, 1950). In the case of marriage this would mean that, in collectivistic countries, unmarried individuals feel guilty for not living up to what is expected of them, which has a negative impact on their self-esteem and general wellbeing.

The experience of various types of sanctions is thus a crucial step between marriage and its consequences for individual well-being in a specific cultural context. Furthermore, this experience of sanctions does not only appear to depend on the context itself, but also on their attitude towards social conformity. It is, after all, to be expected that not every individual experiences the same amount of guilt for letting down their social environment by not marrying; some individuals simply care less about conforming to expectations of their surroundings. If individual attitudes shape the experience of social sanctions for not being married, it can thus be expected that the influence of collectivism on the marriage-well-being relationship is strengthened by individual orientations towards social conformity (*hypothesis 1b*).

This would mean that the group that is 'best off' when it comes to receiving wellbeing-benefits from marriage are married individuals in collectivistic countries who highly value social conformity. These individuals live up to the social expectations from their surroundings *and* see this as an important thing to do, which makes the positive rewards for being married even stronger. At the other end are people in collectivistic societies who also aspire to adhere to collectivistic social norms, but who are not married: because these individuals value social conformity, the fact that they 'failed' to live up to the marriage-ideal has particularly negative consequences for their subjective well-being.

Finally, a cultural interpretation of the role of collectivism can be tested by taking into account the role of other forms of partnership. Based on the notion that social norms are crucial to explaining how collectivism shapes the relationship between marriage and subjective well-being, one would argue that the contribution of marriage to subjective wellbeing in collectivistic contexts is specific for marriage. Put differently, the well-beingbenefits of other forms of partnership such as (non-married) cohabitation would not be larger in collectivistic countries than in individualistic ones, because these forms are less (or not at all) socially accepted in collectivistic contexts (Hansen et al., 2007) and do therefore not provide individuals with positive (social) reward for conforming to dominant norms. Seeing that it is also generally less accepted in traditional cultural contexts (see Liu, Reczek & Brown, 2013), the same would apply for same-sex marriage. This means that, when comparing the effects of different forms of partnership across more or less collectivistic countries, legal marriage is the only form that would provide a significant well-being 'bonus' in collectivistic countries when compared to individualistic countries (hypothesis 1c). This finding would provide additional support to a cultural interpretation of the role of collectivism.

### Marriage as a source of social support: A structural interpretation

Aside from seeing marriage as a way to conform to dominant norms in society, marriage is also a source of social support (Musick & Bumpass, 2006; Waite & Gallagher, 2000). From a sociological perspective, integration into social relations provides people with resources that can be used to cope with encountered problems and stress, increasing mastery and the ability to maintain and recover well-being (Kawachi & Berkman, 2001). Intimate social ties such as marriage are generally considered to be a rich source of such social support (House, Umberson & Landis, 1988; Ormel, Lindenberg, Steverink & Verbrugge, 1999), which makes marriage especially important in circumstances where other sources of support are lacking.

In line with this interpretation, and based on the notion of individualism as eroding social support because social life is structured differently than in collectivistic countries (Miller, 1994; Triandis, 1995), several authors suggest that the well-being-benefits of marriage might be especially great in individualistic countries (e.g. Diener et al., 2000; Kalmijn, 2010). In collectivistic countries, on the other hand, social life is ordered in such a way that an abundance of alternative sources of social support is offered (Miller, 1994), potentially making marriage a less 'needed' social resource in collectivistic contexts.

Several authors have studied the relationship between marriage and subjective wellbeing by interpreting marriage as a source of social support. Focusing on the concept of 'spousal social support', Xu and Burleson (2001) for instance claim that social support is one of the most crucial aspects of marriage, as it offers individuals a resource that can be employed to cope with "life challenges and situational demands" (p. 535). In addition to social support from their partner, married individuals are also more likely to have a larger social network because they become involved in their spouse's social ties (Musick & Bumpass, 2006).

Married people thus have greater access to social support, which directly influences well-being through access to resources, as well as indirectly via a stress-buffering mechanism (Kawachi & Berkman, 2001). Both pathways promote a motivation for self-care and (confidence in) one's coping abilities, which encourages people to take care of themselves and their problems, as such maintaining and enhancing subjective well-being (Kawachi & Berkman, 2001). A sense of control and self-esteem are furthermore stimulated by more intimate ties like romantic relationships through the provision of affection and stimulation of a positive self-evaluation (Bowlby, 1969; House et al., 1988; Xu & Burleson, 2001). This relates to the claim that it is not only the actual social support social ties offer, but also the perception of available support in itself that benefits well-being, through confidence and a sense of control (Turner, Frankel & Levin, 1983).

Hence, being married does not only offer the tools and encouragement to counter actual problems, it also relieves stress by the idea that, should any problems arise, having a significant other means that one is never alone in facing them. Combining this insight with literature claiming that highly individualistic countries offer relatively little social resources (McPherson, Smith-Lovin & Brashears, 2006), would lead to the conclusion that marriage is a less important social resource in collectivistic countries, or, in other words: collectivism weakens the influence of marriage on subjective well-being (*hypothesis 2a*). In the following sections I will proceed to explain in more detail how such an interpretation of marriage as a source of social support could be tested more elaborately.

Based on the literature presented above, (spousal) social support clearly seems to be beneficial to subjective well-being. However, research found that experiences and expectations of spousal social support vary across cultures (see, e.g., Xu & Burleson, 2001). Since the experience and thus the influence of social support from one's spouse is thus dependent upon the cultural context, it is likely that national variations in the support-benefits of marriage exist. A potential explanation that can be deduced from literature on social capital emphasizes socioeconomic and political arrangements, which vary between countries (Berkman, Glass, Brissette & Seeman, 2000). According to this strand of literature, these macro-level structural conditions have consequences for the social networks on the mesolevel, and, ultimately, for the availability of social support at the individual level (Berkman et al., 2000). Comparing countries' availability of social support and structural characteristics, McPherson and colleagues (2006) find that people in individualistic countries are less embedded in local communities because of higher levels of geographical and social mobility in societies, leaving them with less potential sources of social support. As already argued by Emile Durkheim, individuals who experience such a lack of integration in their social environment derive no meaning or purpose from the group (Durkheim, 1897 [1951]; Johnson, 1965), which leaves them to seek a sense of belonging elsewhere (Berkman et al., 2000). It thus follows that in individualistic contexts, marriage could be a 'safe haven' in the sense that it provides individuals the social support they miss from their relatively unstable social environment.

At the other end of the spectrum are individuals in collectivistic societies, who are "integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty" (Hofstede, 1991, p. 51). This large availability of social support in collectivistic countries is for instance visible on the neighbourhood-level (Ahuvia, 2002), but it is also reflected in the strong norms for (intergenerational) family support (Kalmijn, 2010). As such, the structural conditions in collectivistic countries themselves could already be seen as a 'safe haven', providing people with a sense of belonging and protection in the form of social support.

Ormel et al. (1999) similarly suggest that community- and family-resources could serve as a substitute for the support provided by a spouse. This line of reasoning implies the following underlying mechanism is responsible for the hypothesized dampening effect of collectivism on the relationship between marriage and subjective well-being: this dampening effect can be explained by the large availability of alternative sources of social support in collectivistic countries (*hypothesis 2b*), as the availability of these resources reduces the need for other sources of support like marriage.

As was the case with the cultural interpretation discussed in the previous section, this structural approach based on social support has implications for expected variations in the effects of different forms of partnership on well-being across countries. When marriage is interpreted as a source of social support and its main benefits for subjective well-being thus originate from the social relationship itself, other forms of partnership like cohabitation can be expected to offer the same support-benefits (see Evans & Kelley, 2004). This implies that there is no unique 'subjective well-being bonus' for legal marriage in particular, but that alternatives to marriage offer similar benefits, which are all weakened in collectivistic contexts. Therefore, if marriage does not provide an 'extra' well-being-benefit compared to cohabitation or same-sex marriage, it can be expected that all forms of partnership have stronger well-being-effects in individualistic contexts (*hypothesis 2c*). This would provide additional support for a structural interpretation of the role of collectivism.

#### **OVERVIEW OF HYPOTHESES: CONCEPTUAL MODEL**

So far, I have presented two potential interpretations of the role of collectivism in the relationship between marriage and well-being, and, correspondingly, I have formulated two sets of testable hypotheses, which are presented in Figure 1: Conceptual model.

The first, 'cultural', cluster assumes that being married is a way of adhering to the dominant, traditional, social norms in collectivistic societies. This implies that, in collectivistic countries, marriage has a greater well-being-benefit than in individualistic countries (*hypothesis 1a*). If such a cultural interpretation is true, it can be expected that individuals in collectivistic countries who more strongly desire to conform to norms and expectations receive the greatest rewards from marriage, in terms of subjective well-being (*hypothesis 1b*). Finally, based on the notion that legal marriage is the only culturally appropriate form of partnership in collectivistic countries, it is expected that only the effect of legal (heterosexual) marriage on subjective well-being is stronger in collectivistic countries than in individualistic countries (*hypothesis 1c*).

A second cluster of hypotheses is derived from a structural interpretation of collectivism and marriage, first of all expressed by the expectation that collectivism actually weakens the effect of marriage on subjective well-being (*hypothesis 2a*), making marriage less important to individual well-being in collectivistic countries. This interpretation would be supported by the claim that individuals in collectivistic countries have more resources of social support available to them from their social environment, which may serve as a substitute for spousal social support (*hypothesis 2b*). Finally, interpreting marriage as a source of social support implies that other, less traditional forms of partnership, such as cohabitation or same-sex marriage, actually provide the same benefits to subjective wellbeing as legal, heterosexual marriage. Therefore, both traditional and non-traditional forms of partnership are predicted to have a stronger influence on subjective well-being in individualistic countries than in collectivistic countries (*hypothesis 2c*).

Figure 1: Conceptual model



Cultural interpretation

#### Structural interpretation



#### DATA AND MEASUREMENTS

#### Micro-level data

For micro-level data all available waves of the European Social Survey (ESS) were combined, resulting in a dataset consisting of data from 32 European countries, six years (2002, 2004, 2006, 2008, 2010, and 2012) and 291,686 individuals. Prior to conducting the analyses cases with missing values on one of the variables listed below were deleted, resulting in a reduced dataset of 28 countries,<sup>1</sup> 6 years, and 212,683 observations. A weight was applied by combining the design and population weights provided by the ESS, following the instructions on weighting cumulative ESS data (see Ganninger, 2007).

To measure the dependent variable, *subjective well-being*, I combined two commonly used items: 'Taking all things together, how happy would you say you are?' and 'How satisfied are you with life as a whole?' with answers ranging from 0 ('Extremely unhappy/dissatisfied') to 10 ('Extremely happy/satisfied'). Both are considered to denote individuals' overall evaluations of life and are highly correlated (Veenhoven, 2000). Following Kalmijn (2010) and Soons and Kalmijn (2009), this study thus uses the average

<sup>&</sup>lt;sup>1</sup> Due to restricted availability of macro-level data via Eurostat, Israel, Ukraine, Russia, and Turkey were deleted from the sample and not included in the analyses.

score of respondents on the happiness and life satisfaction items. A scale was constructed with higher scores indicating higher levels of *subjective well-being*. Since the Spearman-Brown coefficient is regarded as a more suitable measure of reliability for two-item scales than Cronbach's alpha (see Eisinga, Te Grotenhuis & Pelzer, 2013), the Spearman-Brown coefficient was computed for this scale to test its reliability (Spearman-Brown coefficient = 0.83).

For the main independent variable, *marital status*, a categorical variable was created. Based on different items representing legal marital status in each of the ESS-rounds, respondents were divided into five groups: 1) Legally married (heterosexual); 2) Separated or divorced; 3) Widowed or civil partner died; 4) Cohabiting with partner (unmarried, heterosexual); 5) In a same-sex relationship (cohabiting, civil partnership, or legally married); 6) None of the above (single; reference category). Cohabiting (but unmarried) respondents were determined by using the questions 'Are you currently living with a partner?' and 'What relationship is the person in your household to you?'. In a similar way, these two questions and items stating the gender of the respondent and of her or his partner were used to determine whether were respondents in a same-sex relationship. Finally, respondents who were in a civil partnership (a category which was added from wave 3 on) were coded as cohabiting, since civil partnership is legally and culturally different from marriage (see Soons & Kalmijn, 2009).

A measurement of *conformity* was attained from the ESS Human Values scale originally developed by Schwartz (1992). Respondents were provided with several descriptions of people and asked to indicate how much each person was or was not like them, in order to determine the relative importance individuals ascribe to different values. Two items from this scale were especially designed to measure the extent to which conformity serves as a guiding principle of people's lives (Schwartz et al., 2001, p. 521), and were thus used accordingly: 'She/he thinks people should follow rules at all times, even when no-one is watching' and 'It is important to him/her always to behave properly. She/he wants to avoid doing anything people would say is wrong'. The answer categories ranged from 1 ('Very much like me') to 6 ('Not like me at all') and were reverse coded. A scale was created with higher scores indicating a higher value attributed to *conformity*. As was the case with the measurement of subjective well-being, the Spearman-Brown coefficient was used to indicate the reliability of the 2-item conformity-scale (Spearman-Brown coefficient = 0.57).

Finally, a measure of *social contacts* outside marriage or a romantic relationship was used. Respondents were asked to indicate on a seven-point scale (1 = `Never' to 7 = `Every)

day') how often they met socially with friends, relatives or work colleagues. Since I am primarily interested in the availability of social support in the surrounding social environment because it could serve as a substitute for social support received by a spouse, this measure, inquiring exclusively after social contacts with others than a spouse, is especially appropriate. In this way, it can be tested whether this form of social support may indeed be interpreted as a substitute for spousal social support.

#### Control variables

To take the influence of potentially confounding factors into consideration, *age* in years, *gender* (1 = female and 0 = male) and *education* (in years) were included in the analyses (see Diener, Suh, Lucas & Smith, 1999 for an overview of correlates of happiness).

In addition, economic status in terms of *employment status* was included, using an item measuring the main activity of respondents in the last seven days. Eight different categories were distinguished: 1) 'Paid work'; 2) 'In education'; 3) 'Unemployed' (reference category); 4) 'Permanently sick or disabled'; 5) 'Retired'; 6) 'Community or military service'; 7) 'Housework, looking after children, other activities'; and 8) 'Other'.

Next to such objective measures of economic security, subjective measures of economic position have also proven to be relevant to individuals' well-being (see, e.g., Bryant and Veroff (1984) on economic worries and subjective well-being). Therefore, respondents' 'feeling about household's income nowadays' was used to account for the influence of *subjective economic security*. This item ranged from 1 ('Living comfortably on present income') to 4 ('Very difficult on present income') and was reverse coded so that higher scores represent a higher level of *subjective economic security* (see also Reeskens & Van Oorschot, 2012).

Finally, the influence of *religiosity* on subjective well-being (see, e.g, Ellison, 1991) was taken into account by including a variable inquiring respondents how religious they considered themselves, ranging from 0 ('Not at all') to 10 ('Very religious').

#### Macro-level data

For the macro-level variables an external source was used, namely Eurostat.<sup>2</sup> For each country and year in the ESS survey the macro-level indicators listed below were attained and

<sup>&</sup>lt;sup>2</sup> More specifically, data for the collectivism-index were obtained from the Income and Living Conditions domain (ILC), section 'Living conditions'. This section contains indicators of living conditions of households and characteristics according to different breakdowns. For a description of the ILC, see the metadata file

matched to the micro-level dataset. If the required indicators were, however, not available from Eurostat for the year required, the closest observation was used or left empty. Only observations (a certain country in a certain year) with scores on three or more of the four components of the collectivism-index were included in the final index.<sup>3</sup> For a more detailed overview of how the Eurostat data were treated, see Appendix A: Matching of Eurostat data.

The central macro-level indicator of interest, *collectivism*, was measured by using four different macro-level items obtained from Eurostat, which were combined into an index. Based on a collectivism-index created by Vandello and Cohen (1999), and in line with the conceptualization of collectivism presented earlier, four items illustrating social relations in the family domain were selected: the divorce-to-marriage ratio, the percentage of households consisting of one person, the percentage of households consisting of one single adult with at least one dependent child, and the percentage of elderly (65 years or older) living alone.<sup>4</sup> All four of these items have been found to indicate higher levels of individualism (Vandello & Cohen, 1999). Moreover, they have been used as an indicator of individualism across countries and regions (see, e.g., Yamawaki, 2012), comparing levels of individualism or collectivism across different cultural contexts. For each ESS-round a factor analysis was conducted, which produced a first factor with an eigenvalue ranging between 2.23 and 3.13, explaining between 56% and 78% of the variance. Because each of the presented items measures individualism instead of collectivism, the index was reverse-coded so that higher scores represent higher levels of *collectivism* (Cronbach's alpha ranged from 0.54 to 0.84 across ESS-rounds).

provided by Eurostat (Eurostat, 2013). The macro-level control variable, GDP per capita, was obtained from annual data on economic characteristics (Eurostat, 2014).

<sup>&</sup>lt;sup>3</sup> Russia, Ukraine, and Israel were left out because there was no sufficient information available for these countries on Eurostat. For Turkey, Eurostat data from only one year (2008) could be matched to the ESS micro-level data. Because Turkey had an extreme score on the collectivism index for this year (3.95, over five standard deviations from the mean), it was also left out of the analyses. Additional analyses with the one year of data for Turkey included did not produce different results with regards to the significance levels of the coefficients. For the other countries, years that only had data on two or less components of the collectivism-index in a certain ESS-round were left out. For a detailed overview of the observations in question, see Appendix A: Matching of Eurostat data.

<sup>&</sup>lt;sup>4</sup> Vandello and Cohen (1999) also use items measuring the ratio of people carpooling to driving alone to work, the percentage of people with religious affiliation and the percentage of Libertarian votes. Because this study focuses on collectivism as a traditional cultural orientation to social relationships in the *family* domain, it was decided not to include these items in the created collectivism-index. This decision was supported by the fact that, in his cross-cultural replication of the previously mentioned study, Yamawaki (2012) also refrained from using these items and focused more on social relations in the family domain.

#### Control variables

As is common practice in research on subjective well-being (Diener, 2000), *GDP per capita* in Euro was obtained from Eurostat and used in order to control for the effect of country wealth on individual well-being.<sup>5</sup>

An overview of the variables described in the operationalization-section is presented below in Table 1: Descriptive statistics.

	Mean	SD	Range	Ν
Micro-level (individuals)			-	
Subjective well-being	6.97	2.04	0 - 10	284006
Single (ref.)	0.28	0.45	0 - 1	281708
Married	0.51	0.50	0 - 1	281708
Separated/divorced	0.09	0.29	0 - 1	281708
Widowed	0.10	0.30	0 - 1	281708
Cohabiting	0.01	0.09	0 - 1	281708
Same-sex relationship	0.01	0.08	0 - 1	281708
Conformity	4.15	1.09	1 - 6	270957
Social contacts	4.89	1.61	1 - 7	286112
Age	47.70	18.56	13 – 123	286016
Gender (female)	0.54	0.50	0 - 1	287114
Education	12.16	4.04	0 - 56	284110
Unemployed (ref.)	0.06	0.23	0 - 1	285391
Paid work	0.49	0.50	0 - 1	285391
In education	0.09	0.28	0 - 1	285391
Sick/disabled	0.02	0.15	0 - 1	285391
Retired	0.24	0.43	0 - 1	285391
Community/military service	0.00	0.04	0 - 1	285391
Housework	0.09	0.29	0 - 1	285391
Other	0.01	0.11	0 - 1	285391
Subjective economic security	2.89	0.90	1 - 4	280419
Religiosity	4.76	2.99	0 – 10	284707
Macro-level				
(countries/ESS-rounds)				
Collectivism	-0.03	0.67	-0.85 - 2.66	28 / 6
GDP per capita (/10,000)	2.46	1.31	0.25 - 6.87	28 / 6

#### Table 1: Descriptive statistics

<sup>&</sup>lt;sup>5</sup> The analyses were also conducted without taking the influence of GDP into account. These analyses yielded the same conclusions as the analyses with GDP included presented in the main text, since the same coefficients were significant in both versions of the analyses.

#### **Estimation strategy**

Since the cumulative ESS data I used are not only nested within countries, but also within different ESS-rounds, the applied estimation strategy should take this data structure into account. One of the ways in which this could be done is through using a linear cross-classified multilevel model. Such a model allows for incorporating data from different levels (country and year), but it does not require those levels to be nested among themselves (Rabe-Hesketh & Skondral, 2012). However, a common problem with cross-classified models lies in that they are generally large and complicated (Hox, 2010), which places practical constraints on what statistical software can do. Such constraints were encountered when trying to model a random slope for the dummy-variable marital status to correctly model a cross-level interaction, which resulted in a model Stata was not able to estimate.

For this reason, I applied an alternative method to take the cross-nested structure of the ESS data into account. This was done by using a standard linear multilevel model with two levels, individuals nested within countries. A random intercept for country was added to account for this nested structure. In addition, to also take the effect of different ESS-rounds into account independently from that of variations across countries, dummy variables were added for each round (in total six rounds). In such a way, any year-level differences were controlled for (e.g. Achterberg, 2006).

#### RESULTS

A condensed overview of the results from the conducted multilevel analyses is presented in Table 2. In order to present the reader with a clearer picture of the relevant relationships, the control variables and standard errors are left out of Table 2, although they were included in the analyses (for a complete overview of the results, see Appendix B: Table 2 (Full version)).

First, I explore the role of collectivism by inspecting how it plays a role in the relationship between marital status and subjective well-being. As Model 1 shows, the positive correlation between being married and subjective well-being reported in the vast majority of relevant literature is replicated in this study. Model 1 also demonstrates that the same goes for cohabiting and being in a same-sex relationship, two 'non-traditional' alternatives to legal (heterosexual) marriage. Based on the theoretical framework presented earlier, this would suggest that the benefit of being married does not solely lie in conforming to tradition in collectivistic countries: there must be a characteristic of both marriage and non-traditional forms of relationships that is responsible for the positive relation to subjective well-being.

	Model 1	Model 2	Model 3	Model 4a (low conformity scores)	Model 4b (high conformity scores)	Model 5	Model 6
Independents							
Constant	3.403***	3.337***	3.492***	3.427***	3.630***	2.628***	2.593***
Marital status							
Married	0.340***	0.340***	0.245***	0.243***	0.242***	0.320***	0.392***
Separated/divorced	-0.240***	-0.241***	-0.259***	-0.219***	-0.292***	-0.219***	-0.371**
Widowed	-0.213***	-0.213***	-0.259***	-0.263***	-0.271*	-0.225*	-0.314
Cohabiting	0.265***	0.264***	0.240***	0.222**	0.287**	0.285***	0.220
Same-sex relationship	0.340***	0.341***	0.169*	0.116	0.277**	0.233**	0.280
Single (ref.)	0.010	0.011	0.109	0.110	0.277	0.200	0.200
Collectivism		-0.109**	-0.059	-0.051	-0.193***	-0.062	0.062
Marital status * collectivism Married			-0.076**	-0 108**	0 009	-0.058*	-0.057*
Separated/divorced			-0.106	-0 204*	-0.004	-0.098	-0.099
Widowed			-0.069	-0.154	0.015	-0.033	-0.035
Cohabiting			0.009	0.092	0.439*	0.055	0.055
Same-sex relationship			0.027	-0.067	0.129	0.021	0.020
Single (ref.)			0.027	0.007	0.129	0.021	0.020
Social contacts						0.174***	0.181***
Marital status * social contacts Married							-0.015
Separated/divorced							0.032
Widowed							-0.019
Cohabiting							0.013
Same-sex relationship							-0.009
Single (ref.)							
ESS-round dummies							
ESS-round 2 (2004)	-0.135***	-0.194***	-0.194***	-0.145*	-0.236***	-0.177**	-0.177**
ESS-round 3 (2006)	-0.042	-0.112*	-0.105*	-0.059	-0.151**	-0.097*	-0.096*
ESS-round 4 (2008)	-0.043	-0.110*	-0.103*	-0.092*	-0.110*	-0.087*	-0.087*
ESS-round 5 (2010)	0.076	0.011	0.015	0.038	-0.004	0.013	0.032
ESS-round 6 (2012)	0.208***	0.138**	0.143**	0.135**	0.158*	0.172*	0.172*
ESS-round 1 (2002) (ref.)							
N	212,683	212,683	212,683	108,594	104,089	212,683	212,683
Log pseudolikelihood	-350919.9	-350903.2	-350565.2	-181751.1	-168632.0	-348479.6	-348465.3

#### Table 2: Interpreting the role of collectivism in the relationship between marital status and subjective well-being

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05 Multilevel model; 212,683 individuals in 28 countries and 6 ESS-rounds; unstandardized coefficients shown; controlled for gender, age, education, employment status, subjective economic security, religiosity, and GDP per capita (/10,000) Complete overview of results including control variables and standard errors provided in Appendix A: Table 2 (Full version) When it comes to the potential influence of any stable time trend, observing the dummies for ESS-rounds shows that in rounds 2 to 4, but most clearly in round 2 (2004), the scores on subjective well-being are generally lower than in 2002 (the reference category). The dummies for the last round of the ESS (2012), however, appear to be correlated to higher scores on subjective well-being compared to 2002, suggesting higher levels of happiness in the 2012. There thus seem to be indications that a time trend related to subjective well-being does exist, implying that taking the year-level into account is necessary when examining issues related to subjective well-being. Furthermore, although the coefficients and corresponding significance-levels drop in Model 4a, suggesting that the variables modelled here for individuals with lower conformity-scores partly explain the variations across ESS-rounds, the coefficients of the dummies for all rounds except round 5 (2010) remain significant quite constantly across the displayed models. Over-time fluctuation in well-being is thus a factor that needs to be taken into account when examining the role of collectivism in the relationship between marriage and subjective well-being.

Observing the role of collectivism more closely in Model 2 shows us that living in a more collectivistic context is significantly related to scores on subjective well-being. More importantly, however, Model 3 provides an indication of what role collectivism plays in the relationship between marital status and subjective well-being, the main focus of this study. Focusing on legal (heterosexual) marriage, we can observe that a significant negative interaction exists between being married and collectivism.

Since the interpretation of interaction-terms is often impossible based solely on a tradition results table and is greatly aided by graphical illustrations (Brambor, Clark & Golder, 2005), marginal effects of marriage were plotted in Figure 2. This was done using the margins- and marginsplot-commands in Stata after all covariates had been set at their mean. Showing the strength of the effect of being legally married (compared to being single) on subjective well-being for different levels of collectivism, Figure 2 illustrates the dampening effect of collectivism on the marriage-well-being relationship: the effect of being married on subjective well-being decreases as the national context becomes more collectivistic. In addition, Figure 2 shows that being legally married only significantly contributes more to subjective well-being than being single in countries that are not strongly collectivistic. The effect of marriage is strongest in countries such as Norway and Sweden (both countries score below -0.5 on the collectivism-index in all ESS-rounds). The strongest effect of marriage is found in Norway in 2004, with a score of -0.85 on the collectivism-index and an effect of marriage on well-being of 0.310 (statistically significant at the .001-level).



Focusing on countries at the other end of the collectivism-index, Figure 2 also demonstrates that the effect of marriage on subjective well-being does not vary significantly from 0 from a high level of collectivism onwards. This means that in countries such as Greece, a country that scores relatively highly on the collectivistic-index (above 1.2 in all ESS-rounds), the relationship between being legally married and subjective well-being is not statistically significant and married people are actually not significantly happier than those who are single. All in all, we could thus describe the role of collectivism by saying that the effect of marriage is *dampened* in collectivistic contexts, where marriage is therefore less important to subjective well-being. This finding is in support of hypothesis 2a, and in contrast with hypothesis 1a. It also points us in the direction of a structural interpretation of the role of collectivism, although this interpretation will only be formally tested in Model 5.

Turning to Models 4a and 4b first, test the cultural interpretation, we focus on the difference between individuals with lower scores on the conformity-scale (scores below or equal to the median (4); presented in Model 4a) and individuals with higher scores on the conformity-scale (scores above the median; presented in Model 4b). Comparing the interaction between collectivism and marital status across Model 4a and 4b enables me to

examine the influence of conformity in shaping the role of collectivism, and to see for which group this role is dampened or strengthened.

First of all, still focusing on legal heterosexual marriage, we can see that the modelled interaction between collectivism and marital status is only significant for the individuals with lower conformity-scores (presented in Model 4a, graphically depicted in Figure 3). This means that collectivism only dampens the effect of marital status on subjective well-being only for those individuals who do not value conformity highly. For those who do value social conformity highly (presented in Model 4b, graphically depicted in Figure 4), collectivism does not have a dampening influence on the well-being-effect of marriage. In statistical terms, this means that the negative effect of collectivism on the marriage-well-being relationship is dampened by conformity. When it comes to other categories of marital status, Figure 3 shows that, for those who are little conformist, the negative effect of being separated or divorced on subjective well-being is more strongly negative in collectivistic contexts. For individuals who are more conformist (Figure 4), this is not the case, indicating that the negative effect of separation exists regardless of the national level of collectivism.

At first sight, it becomes clear that the slopes of the graphs vary across Figure 3 and 4: for people with lower scores on conformity (Figure 3), the dampening effect of collectivism on the influence of legal marriage and separation or divorce is more clearly visible than for people with higher conformity-scores (Figure 4). When it comes to legal heterosexual marriage, this means that the role of collectivism as observed earlier, namely dampening the relationship between marriage and subjective well-being, is less strong for people who value conformity highly. In collectivistic countries, individuals with high scores on the conformity-scale form a group for whom marriage is most likely to have a similar effect on subjective well-being as for married individuals in individualistic countries. Put differently, for conformist people the influence of marriage on well-being is relatively stable across collectivistic and individualistic countries, whereas non-conformist people only experience the benefits of marriage to well-being in individualistic countries.

Figures 3 and 4 thus imply that although being married does not enhance subjective well-being in a collectivistic context, this is not true for conformist individuals, who still derive some well-being benefits from adhering to the norm of being legally married. This means that the observed dampening effect of collectivism is partly counteracted by the cultural mechanism tested in hypothesis 1b, namely that being conformist increases the well-being benefits from marriage in collectivistic countries because it implies caring more about adhering to the expectations of the social environment.

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Even though conformity thus somewhat diminishes the overall dampening effect of collectivism, it is clear that hypothesis 1a must be rejected: in none of the scenarios presented above, being legally married has a stronger (positive) effect on subjective well-being in collectivistic countries. Since hypothesis 1b states that legal marriage is the only form of partnership that has a *greater* influence on subjective well-being in collectivistic countries, this hypothesis must be rejected, too. Although conformity does appear to play a role in the marriage-well-being relationship, a cultural interpretation as proposed in the theoretical section is thus not likely to offer an adequate explanation of the role of collectivism.

When it comes to the other category of marital status presented in Figures 3 and 4, namely being separated or divorced, we see that the negative effect of being divorced or separated on well-being is stronger in more collectivistic contexts, but that this is only the case for people who do *not* value social conformity highly (Figure 3). This is in line with what would expected in general: being separated or divorced is related to lower subjective well-being in collectivistic countries, while in individualistic countries, individuals who are separated or divorced are *not* significantly less happy than those who are single. It is, however, somewhat unexpected when taking into account Figure 3 only represents those who scored relatively low on the conformity-scale, and that a collectivistic context apparently plays a larger role in the marriage-well-being relationship for them than for people who have higher conformity-scores.

A potential explanation of this result can be found by considering how non-conformist individuals are regarded in collectivistic countries. It could, for instance, be the case that nonconformists who get divorced do so for less 'valid' reasons in the eyes of their collectivistic context than conformist people who get divorced, precisely because they are less conformist. It is possible that conformist individuals only get divorced for more serious reasons that are more easily accepted in collectivistic countries. Non-conformist individuals, on the other hand, could be more likely to end a marriage because they are simply not satisfied with the marriage anymore, which would be less accepted in collectivistic countries, and might thus result in greater deprecation and lower subjective well-being in collectivistic contexts. Consequently, non-conformists who are divorced or separated could face exclusion from vital social (and other) resources, potentially explaining why their well-being is affected even though they do not value social expectations that much. However, seeing as the offered explanations cannot be substantiated with empirical evidence in this study, further research into the role of conformity in the effect of divorce or separation would be recommended.

So far, it has thus become clear that although a cultural logic cannot be entirely ruled out because of the role conformity plays, the question still remains why the effect of collectivism on this relationship is negative. Based on the theoretical framework, we would expect a structural explanation to hold in this case: marriage is positively related to subjective well-being because it offers social support, which is less necessary in 'socially resourceful' collectivistic contexts. In Model 5 the variable measuring frequency of social contacts outside marriage is added. The observed effect of such social contacts on subjective well-being is significantly positive, implying that people with more frequent social contacts outside marriage are generally happier. In the following model, Model 6, the structural interpretation is tested, by including an interaction between social contacts with others than a spouse and marital status. Model 6 clearly demonstrates that although having many social contacts outside marriage is positively correlated with higher scores on subjective well-being, there is no significant interaction between these social contacts and being married. This implies that the dampening role of collectivism cannot be attributed to the larger availability of social resources outside the marital relationship in collectivistic countries, in contrast with what was stated in hypothesis 2b.

A potential explanation for this result is investigated in additional analyses, in which the effect of national collectivism on social contacts with others than a spouse is investigated (provided in Appendix C: Effect of collectivism on social contacts). The analyses show that, controlled for all other independent variables included in Table 2, collectivism is not significantly correlated with the frequency of social contacts outside marriage for individuals. This result stands in contrast with literature suggesting that individuals who live in collectivistic countries are better integrated into the social context (see McPherson et al., 2006), and thus have a larger supply of social support. Instead, it seems that the frequency of social contacts with others than a spouse does not vary significantly between collectivistic and individualistic countries. This finding could shed some light on Model 6 and the finding that the dampening effect of collectivism cannot be explained by the larger availability of social contacts provided by collectivistic contexts. Based on Model 6, hypothesis 2b must thus be rejected.

Reviewing the evidence found in this study, we have found that collectivism has a dampening effect on the marriage-well-being relationship (*hypothesis 2a*). Only the effect of legal heterosexual marriage varies significantly across collectivistic and individualistic countries (*hypothesis 1c*). But, in contrast with hypothesis 1c, this effect is not strengthened in collectivistic countries. Both hypothesis 1c and hypothesis 2c must therefore be rejected.

The findings demonstrate that the observed dampening role of collectivism cannot be explained by the expected larger availability of social resources in collectivistic contexts (*hypothesis 2b*). Additionally, it is shown that the proposed cultural mechanism of conformity plays a small role (*hypothesis 1b*), but that the overall influence of collectivism on the relationship between marriage and subjective well-being still remains a dampening one. In the final section, the implications of these results will be discussed and an alternative explanation will be proposed for the observed dampening role of collectivism in the marriage-well-being relationship.

#### **CONCLUSION AND DISCUSSION**

In response to scholars pointing out the need to contextualize the well-known relationship between marriage and subjective well-being (see Frech & Williams, 2007; Kalmijn, 2010; Stack & Eshleman, 1998), this study has examined the role of national collectivism in shaping the marriage-effect. As such, the main aim was to contribute to solving the ambiguity regarding the role of collectivism currently existing in this field of research. In addition, this study has attempted to offer an interpretation of the observed role of collectivism. Based on a literature review, two interpretations have been offered: a cultural interpretation, based on the idea that being married means conforming to a norm in collectivistic countries and is, as such, beneficial to well-being; and a structural interpretation, which stems from the conception of marriage and collectivistic contexts as sources of social support.

Multilevel analyses of pooled ESS-data showed that collectivism dampens the positive effect of marriage on subjective well-being, which means that marriage has a smaller influence on well-being in collectivistic countries than in individualistic countries, where the well-being-benefits are larger. Interestingly, this finding stands in sharp contrast with the claim of Diener et al. (2000) and Stack and Eshleman (1998), who conclude that the marriage-well-being relationship is quite universal across countries. The results of this study indicate that, even within one part of the world like Europe, there *are* important variations in how marriage affects subjective well-being, and that these variations are (at least in part) shaped by variations in levels of collectivism or individualism.

As has already been pointed out by Kalmijn (2010), the contrasting outcome of this study could be due to the methodological approach. Whereas this study makes use of a multilevel approach that is specifically adapted to the data, both Diener et al. (2000) and Stack and Eshleman (1998) do not take the multilevel nature of their data into account by using appropriate multilevel methodology. Other factors that could have influenced the

outcome of this study are the selection of time period and countries, although the use of the European Social Survey in this field of research is not new (see, e.g., Soons & Kalmijn, 2009; Swift et al., 2014) and this study uses data from all six ESS-rounds (ranging from 2002 to 2012).

Another issue that is important in this respect concerns selection-effects: the idea has been raised that the relationship between marriage and well-being is due to selection of healthier of happier people into marriage (see Ren, 1997). As this study does not use longitudinal data, claims regarding causality must be made with caution and would be aided by using panel data. However, previous research convincingly shows that the relationship between marriage and well-being holds when longitudinal data are used (see, e.g., Kim & McKenry, 2002; Marks & Lambert, 1998; Murray, 2000; Simon, 2002), accounting for a wider array of selection factors than cross-sectional designs. This adds weight to the conclusion of this study that marriage-*effects* differ cross-nationally, and suggests that social causality plays a significant role in the found correlation between marriage and subjective well-being.

When comparing the finding that collectivism dampens the influence of marriage on well-being to the structural interpretation proposed in the theoretical section, one would expect this dampening influence of collectivism to be explained by the relatively large amount of social capital outside of marriage available in collectivistic contexts (Miller, 1994), which could serve as a substitute for spousal social support. The findings of this study, however, indicate otherwise: the proposed structural mechanism based on social support does not explain why the relationship between marriage and well-being is weaker in collectivistic countries. Additional analyses furthermore showed that the level of collectivism of the context does not influence the frequency of social contacts on the individual level, thus suggesting that collectivistic countries do not necessarily provide a more socially resourceful context. As the proposed structural interpretation was based on the assumption that social support is more widely available in collectivistic countries, this could help us understand why such a structural interpretation cannot explain the dampening effect of collectivistic contexts on the relationship between marriage and subjective well-being.

An additional explanation for the lack of evidence for the proposed structural interpretation could be sought in the operationalization used in this study, as the frequency of social contacts apart from the spouse or partner is used. Although such a quantitative measurement is a commonly used operationalization of social support (Barrera, 1986; Stefano, Kwon & Lackaff, 2012), measurements focusing solely on the frequency or quantity

of social contact might fall short in interpreting the effect of marriage and the role of collectivism. Other aspects of social capital, such as measures of the emotional intensity of social contact (see, e.g., Uchida, Kitayama, Mesquita, Reyes & Morling, 2008), could be especially relevant, since one would expect more intimate relations to play a larger role in processes affecting subjective well-being.

Another potential answer to the question of how the dampening effect of collectivism can be explained may be found by turning to the meaning of marriage. The meaning of marriage could, after all, not only vary cross-nationally with regards to conforming to different dominant traditions, but also in terms of the personal value it holds in a certain cultural context. In order to clarify this issue, we must turn to cultural variations in the meaning of marriage, and more specifically focus on the motivations individuals have to get or stay married.

This focus is reflected by classical sociological literature on processes of individualization and their consequences for family life. In this strand of literature it is generally argued that the family has moved from an economic unit (in traditional societies) to a 'personal project' (see, e.g., Giddens, 1992). As family and marriage have increasingly become matters of personal choice and romantic love (Beck & Beck-Gernsheim, 1995; Beck-Gernsheim, 1998), they are more and more only being entered into if they are experienced as 'rewarding' to the individual (Cherlin, 2004). In short, the "logic of individually designed lives" (Beck-Gernsheim, 1998, p. 58) also increasingly applies to the realm of marriage and partnership. In modern, individualized societies people are increasingly free to "choose (...) whether they really want to marry or to stay single, and whether to seek a divorce rather than to put up with endless conflicts if the marriage does not turn out as they hoped" (Beck-Gernsheim, 1998, p. 59).

This interpretation suggests that individualistic countries do not only differ from collectivistic countries when it comes to marriage in their less traditional conceptions of family life, but also with regards to marriage being a personal choice and a means of self-fulfillment and –expression. One only 'has to' get married if this actually contributes to her or his personal happiness, and if not, the choice to end the marriage is also free (Cherlin, 2004). The same goes for partner-choice: this choice, too, is arguably more 'free' in individualistic countries, and made based on romantic love instead of on arrangements that are beneficial to the larger family or beneficial in economic terms (Beck-Gernsheim, 1998). In collectivistic countries, on the other hand, the choice of a partner or to end a marriage is arguably less

'free', pushing individuals towards getting and staying married to a larger extent, even if people are less (or not) satisfied with their marriage.

Such an interpretation of collectivism and its role in the relationship between marriage and subjective well-being would explain the negative effect of collectivism on the marriagewell-being relationship. Interestingly, this alternative interpretation is also cultural in the sense that it is based on cultural variations in the meaning that is attributed to marriage, although it clashes with the cultural interpretation proposed in the theoretical section of this study: in the case of the 'alternative' cultural interpretation, conforming to traditions is not seen as beneficial to well-being because this could hinder the pursuit of personal goals and limit personal choice. Although future research is needed to empirically test the 'alternative' cultural interpretation offered here, indications have thus been found that culture might play a central role in explaining how a national characteristic like collectivism shapes even the most intimate of social relationships and its effect on individual well-being.

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## **APPENDIX A: MATCHING OF EUROSTAT DATA**

Data from previous year used Data from next year used Observation not included in final analyses (too many missing values)

		Crude divorce	Crude marriage	Marriage-to-	Single person	Single adult with dependent	Elderly	GDP per
ESS-	_	rate (per	rate (per	divorce ratio	households	child(ren)	living	capita in
round	Country	1.000)	1.000)	(computed)	(%)	(%)	alone (%)	Euros
1	Austria	2.5	4.5	1.8	33.0	3.0	35.0	28600
2	Austria	2.4	4.7	2.0	34.1	3.8	36.0	29300
3	Austria	2.5	4.5	1.8	34.7	3.9	35.5	30800
4	Austria	2.4	4.2	1.8	35.3	4.0	34.2	32100
5	Austria	2.1	4.5	2.1	30.0 26.5	3.2	33.9	31300
1	Rolgium	2.0	4.0	2.3	25.0	3.5	33.8	27700
1	Belgium	3.0	5.9 4 2	1.5	23.0	5.0	32.0	27700
2	Belgium	2.8	4.2	1.4	32.4	5.2	34.9	20000
5 4	Belgium	2.0	43	1.3	34.8	5.2	36.2	30200
5	Belgium	2.7	3.9	1.5	34.6	5.2	35.2	29600
6	Belgium	2.5	3.6	1.4	34.9	5.8	34.4	29600
1	Bulgaria	1.3	3.7	2.8				2500
2	Bulgaria	1.9	4.0	2.1	18.6	1.8	22.2	2800
3	Bulgaria	2.0	4.3	2.2	18.6	1.8	22.2	3200
4	Bulgaria	1.9	3.7	1.9	18.4	1.9	23.3	3700
5	Bulgaria	1.5	3.3	2.2	19.4	2.8	24.9	3500
6	Bulgaria	1.6	2.9	1.8	21.6	2.9	25.0	3700
1	Switzerland	2.2	5.5	2.5	•	•	•	40100
2	Switzerland	2.4	5.3	2.2				40400
3	Switzerland	2.8	5.3	1.9	31.2	2.9	33.8	42500
4	Switzerland	2.6	5.4	2.1	31.1	2.9	32.0	44200
5	Switzerland	2.8	5.5	2.0	31.3	2.9	33.1	44200
6	Switzerland	2.2	5.3	2.4	31.9	3.1	32.5	44600
1	Cyprus	1.9	14.5	7.6				17400
2	Cyprus	2.2	7.3	3.3	16.0	3.0	22.5	18000
3	Cyprus	2.3	7.0	3.0	16.0	2.6	20.9	18900
4	Cyprus	2.1	7.8	3.7	20.8	3.2	24.0	19600
5	Cyprus	2.3	7.3	3.2	20.8	3.2	22.4	18500
6	Cyprus	2.4	6.7	2.8	20.7	3.2	21.5	17400
1	Czech Republic	3.1	5.2	1.7		•	•	8800
2	Czech Republic	3.2	5.0	1.6	22.8	4.2	30.2	9600
3	Czech Republic	3.1	5.2	1.7	23.7	4.1	31.1	10900
4	Czech Republic	3.0	5.1	1./	24.8	4.2	33.1	11/00
5	Czech Republic	2.9	4.5	1.0	23.5	4.1	29.6	11400
0	Czech Republic	2.5	4.3	1./	27.2	4.2	33.8	26600
1	Germany	2.5	4.0	1.8	39.0 27.1	2.0		20000
2	Germany	2.0	4.8	1.8	5/.1 20 1	5.1	30.2	20800
3 1	Germany	2.3	4.3 1 6	2.0	38.1 20.1	5.2 A E	54./ 22 5	28000 20200
4	Germany	2.3	4.0 17	2.0	39.1 20.9	4.0 1 5	52.5 21.2	29300 20100
5	Germany	2.5	4./ / Q	2.0	39.8 40.2	4.5 1 6	31.3 21 5	29100
0	Germany	2.2	4.8	2.2	40.2	4.0	51.5	30200

1	Denmark	2.8	6.9	2.5	26.0	2.0	46.6	36700
2	Denmark	2.9	7.0	2.4	43.5	5.2	46.3	37500
3	Denmark	2.6	6.7	2.6	43.9	5.4	45.7	39400
4	Denmark	2.7	6.8	2.5	45.8	5.4	45.6	39300
5	Denmark	2.6	5.6	2.2	46.2	5.3	44.1	37300
6	Denmark	2.8	5.1	1.8	47.1	5.9	42.8	37200
1	Estonia	3.0	4.2	1.4 .				6600
2	Estonia	3.1	4.4	1.4	32.0	6.7	38.5	7600
3	Estonia	2.8	5.2	1.9	33.2	6.3	38.0	9200
4	Estonia	2.6	4.6	1.8	34.4	6.1	38.8	9500
5	Estonia	2.2	3.8	1.7	34.5	5.1	39.6	8400
6	Estonia	2.4	4.5	1.9	36.0	5.2	40.8	9500
1	Spain	1.0	5.1	5.1	19.0	1.0 .		20000
2	Spain	1.2	5.0	4.2	23.2	1.8	23.4	20600
3	Spain	2.9	4.5	1.6	22.0	1.9	23.6	21500
4	Spain	2.4	4.2	1.8	22.2	1.8	23.2	21700
5	Spain	2.2	3.6	1.6	22.6	2.3	22.0	20600
6	Spain	2.2	3.5	1.6	23.2	2.8	22.4	20200
1	Finland	2.6	5.2	2.0	40.0	2.0 .		27700
2	Finland	2.5	5.6	2.2	37.9	4.3	39.9	29300
3	Finland	2.5	5.4	2.2	38.5	4.1	38.6	31200
4	Finland	2.5	5.8	2.3	39.2	4.1	40.5	32700
5	Finland	2.5	5.6	2.2	39.5	4.0	39.6	30600
6	Finland	2.4	5.3	2.2	40.2	3.8	39.6	30900
1	France	1.9	4.6	2.4	24.0	3.0 .		26500
2	France	2.2	4.5	2.0	32.8	4.9	35.7	27000
3	France	2.2	4.3	2.0	31.2	4.9	35.8	27800
4	France	2.1	4.1	2.0	34.6	4.9	35.8	28100
5	France	2.1	3.9	1.9	35.3	5.1	36.9	27400
6	France	2.0	3.7	1.9	34.7	5.1	36.4	27600
1	United Kingdom	2.7	4.9	1.8	32.0	5.0 .		28400
2	United Kingdom	2.8	5.2	1.9	32.0	6.7	35.3	30200
3	United Kingdom	2.4	4.5	1.9	31.2	6.5	36.6	31700
4	United Kingdom	2.2	4.4	2.0	31.1	5.5	37.3	32100
5	United Kingdom	2.1			30.9	5.9	37.3	30500
6	United Kingdom	2.1	4.4	2.1	29.0	6.4	31.9	30200
1	Greece	1.0	5.3	5.3	19.0	2.0	20.4	15500
2	Greece	1.1	4.6	4.2	19.7	1.9	22.2	17100
3	Greece	1.2	5.2	4.3	19.8	1.8	20.3	18300
4	Greece	1.2	4.8	4.0	20.1	1.3	19.1	18800
5	Greece	1.2	5.1	4.3	20.3	1.3	18.6	17400
6	Greece		4.5		20.6	1.4	19.1	15100
1	Croatia	1.0	5.3	5.3				7300
2	Croatia	1.0	53	4.4		•		8000
- 3	Croatia	1.1	5.1	4.6				8800
4	Croatia	1.2	5.4	4.5				9400
5	Croatia	1.2	5.0	4 2	. 24.6	18	30.1	8600
6	Croatia	1.2	4.8	3.7	24.6	1.5	32.1	8400
1	Hungary	2.5	4.5	1.8	21.0	1.0	52.1	7700
2	Hungary	2.5	4.3	1 8	29 0	· 49	36.1	8400
23	Hungary	2.4	44	1.8	22.0	5.2	32.7	9200
ر ۱	Hungary	2.5	4.0	1.6	24.1	4.6	32.7	9300
	Hungary	2.5	3.6	1.5	23.9	43	28.5	8800
6	Hungary	2.4	3.6	1.5	23.7	37	20.5	8800
1	Ireland	0.7	5.0	74	24.0	3.0	34.7	36100
1	nonunu	0.7	5.4	/. <del>.</del>	± <b>⊤.</b> ∪	5.0	941	50100

2	Ireland	0.8	5.2	6.5	21.4	6.4	36.3	37800
3	Ireland	0.9	5.2	5.8	21.9	8.0	33.9	40300
4	Ireland	0.8	5.0	6.3	21.7	8.2	31.9	39300
5	Ireland	0.7	4.6	6.6	22.3	9.0	33.5	35900
6	Ireland	0.6	4.3	7.2	21.7	8.2	29.6	36400
1	Israel							
2	Israel							
- 3	Israel						•	
4	Israel							
5	Israel							
6	Israel							
1	Iceland	1.8	5.6	3.1				38500
2	Iceland	1.9	5.0	2.6	29.5	6.9	35.8	41800
3	Iceland	1.6	5.5	3.4	27.4	7.3	31.2	45100
4	Iceland	1.7	5.2	3.1	29.3	6.4	32.9	46100
5	Iceland	1.8	4.9	2.7	31.2	8.2	34.4	41500
6	Iceland	1.6	4.6	2.9	31.1	8.4	36.3	42800
1	Italy	0.7	4.7	6.7	21.0	1.0		24500
2	Italy	0.8	4.3	5.4	27.7	3.0	29.2	24500
3	Italy	0.9	4.2	4.7	28.7	2.7	29.3	24900
4	Italy	0.9	4.2	4.7	29.8	3.0	30.7	24700
5	Italy	0.9	3.7	4.1	31.1	3.5	32.0	23500
6	Italy	0.9	3.5	3.9	31.1	3.2	30.7	22800
1	Lithuania	3.1	4.7	1.5				4800
2	Lithuania	3.3	5.7	1.7	28.4	5.9	34.2	5800
3	Lithuania	3.4	6.5	1.9	28.1	5.5	35.5	6900
4	Lithuania	3.2	7.5	2.3	30.0	5.6	38.2	8000
5	Lithuania	3.2	6.0	1.9	32.7	4.9	40.8	7100
6	Lithuania	3.5	6.9	2.0	35.2	5.7	44.3	8100
1	Luxembourg	2.4	4.5	1.9	27.0	1.0	29.5	60700
2	Luxembourg	2.3	4.4	1.9	29.3	3.6	30.4	62700
3	Luxembourg	2.5	4.1	1.6	28.9	3.3	30.8	67200
4	Luxembourg	2.0	3.9	2.0	28.9	3.3	30.1	68700
5	Luxembourg	2.1	3.5	1.7	28.9	3.7	28.1	64500
6	Luxembourg	2.1	3.4	1.6	33.3	3.6	30.4	62600
1	Netherlands	2.1	5.2	2.5	35.0	3.0		30400
2	Netherlands	1.9	4.4	2.3	34.6	3.2	37.8	30900
3	Netherlands	1.9	4.4	2.3	35.0	3.3	35.4	32500
4	Netherlands	2.0	4.5	2.3	35.5	3.4	35.8	34200
5	Netherlands	2.0	4.5	2.3	36.1	3.3	33.1	33100
6	Netherlands	2.1	4.2	2.0	36.7	3.9	32.5	32700
1	Norway	2.3	4.5	2.0			44.1	50000
2	Norway	2.4	4.1	1.7	41.1	5.8	45.3	51900
3	Norway	2.3	4.7	2.0	43.3	5.6	45.5	53700
4	Norway	2.1	5.3	2.5	41.1	6.1	41.2	53900
5	Norway	2.1	4.8	2.3	41.1	7.0	39.3	52000
6	Norway	2.0	4.8	2.4	41.2	5.7	39.3	52800
1	Poland	1.2	5.0	4.2	•			5600
2	Poland	1.5	5.0	3.3	25.2	2.9	32.5	6200
3	Poland	1.9	5.9	3.1	25.1	3.0	33.3	6800
4	Poland	1.7	6.8	4.0	25.3	2.6	33.9	7600
5	Poland	1.6	6.0	3.8	25.2	2.1	34.0	8000
6	Poland	1.7	5.3	3.1	24.4	2.4	30.6	8500
1	Portugal	2.7	5.4	2.0	12.0	2.0	•	14700
2	Portugal	2.2	4.7	2.1	16.6	3.1	21.8	14600
	-							35

3	Portugal	2.3	4.5	2.0	16.7	2.9	22.4	14800
4	Portugal	2.5	4.1	1.6	17.6	2.9	23.2	15100
5	Portugal	2.6	3.8	1.5	17.7	3.5	22.8	14900
6	Portugal	2.4	3.3	1.4	19.3	4.1	23.1	14300
1	Russia			•	•	•		
2	Russia	4.4	6.8	1.5 .				
3	Russia	4.5	7.8	1.7 .				
4	Russia	5.0	8.3	1.7 .				
5	Russia	4.5	8.5	1.9 .				
6	Russia	4.7	9.2	2.0 .				
1	Sweden	2.4	4.3	1.8	42.0	7.0 .		30400
2	Sweden	2.2	4.8	2.2	41.7	6.3	45.5	32200
3	Sweden	2.2	5.0	2.3	41.3	6.0	46.0	34300
4	Sweden	2.3	5.5	2.4	37.6	5.5	41.0	34700
5	Sweden	2.5	5.3	2.1	39.5	5.1	39.1	34500
6	Sweden	2.5	5.3	2.1	38.7	5.0	38.0	35300
1	Slovenia	1.2	3.5	2.9 .				12900
2	Slovenia	1.2	3.3	2.8	21.3	4.0	29.4	13800
3	Slovenia	1.2	3.2	2.7	20.4	3.5	27.6	15100
4	Slovenia	1.1	3.3	3.0	20.8	3.7	26.0	16600
5	Slovenia	1.2	3.2	2.7	27.0	4.0	32.6	15300
6	Slovenia	1.2	3.4	2.8	28.9	4.0	33.7	15000
1	Slovakia	2.0	4.7	2.4 .				6100
2	Slovakia	2.0	5.2	2.6	23.6	3.0	40.3	6700
3	Slovakia	2.4	4.8	2.0	24.2	2.9	38.4	7700
4	Slovakia	2.4	5.3	2.2	24.2	2.7	32.7	9000
5	Slovakia	2.2	4.7	2.1	23.1	3.0	31.6	8900
6	Slovakia	2.0	4.8	2.4	24.7	2.5	32.5	9400
1	Turkey	0.7	6.8	9.7 .				4800
2	Turkey	1.3	8.7	6.7 .				5300
3	Turkey	1.3	8.7	6.7	6.1	2.5	12.9	6000
4	Turkey	1.4	9.0	6.4	6.5	2.3	13.8	6200
5	Turkey	1.6	8.0	5.0 .				6300
6	Turkey	1.6	8.0	5.0 .	•	•		
1	Ukraine							
2	Ukraine	3.7	5.9	1.6 .				
3	Ukraine	3.8	7.6	2.0 .				
4	Ukraine	5.3	7.0	1.3 .				
5	Ukraine	2.8	6.7	2.4 .	•			
6	Ukraine	1.1	6.1	5.5 .				

## **APPENDIX B: TABLE 2 (FULL VERSION)**

being				24 114	X 1 1 41		16 116
	Model 1	Model 2	Model 3	Model 4a	Model 4b	Model 5	Model 6
				(lower	(nigner		
				scores)	scores)		
Independents							
Constant	3.403***	3.337***	3.492***	3.427***	3.630***	2.628***	2.593***
	(0.551)	(0.552)	(0.419)	(0.399)	(0.412)	(0.397)	(0.387)
	(0.001)	(0.002)	(0.11))	(0.377)	(0.112)	(0.5)7)	(0.507)
Marital status							
Married	0.340***	0.340***	0.245***	0.243***	0.242***	0.320***	0.392***
	(0.032)	(0.032)	(0.053)	(0.052)	(0.060)	(0.051)	(0.089)
Separated/divorced	-0.240***	-0.241***	-0.259***	-0.219***	-0.292***	-0.219***	-0.371**
1	(0.030)	(0.030)	(0.048)	(0.054)	(0.056)	(0.044)	(0.115)
Widowed	-0.213***	-0.213***	-0.259***	-0.263***	-0.271*	-0.225*	-0.134
	(0.033)	(0.033)	(0.094)	(0.078)	(0.107)	(0.090)	(0.131)
Cohabiting	0.265***	0 264***	0 240***	0 222**	0.287**	0.285***	0.220
Condonning	(0.052)	(0.052)	(0.071)	(0.073)	(0.089)	(0.064)	(0.220)
Sama say relationship	(0.052)	0.341***	0.160*	0.116	(0.007)	(0.004)	(0.231)
Same-sex relationship	(0.025)	(0.025)	(0.085)	0.110	(0.0277)	(0.080)	0.280
Sim alo (and )	(0.035)	(0.035)	(0.085)	(0.110)	(0.089)	(0.089)	(0.221)
Single (rel.)							
Collectivism		-0 109**	-0.059	0.051	-0 193***	-0.062	-0.062
Concertishi		(0.040)	(0.039)	(0.048)	(0.036)	(0.039)	(0.032)
Marital status * collectivism		(0.040)	(0.057)	(0.040)	(0.050)	(0.037)	(0.057)
Married			0.076**	0 108**	0.000	0.058*	0.057*
Mamed			(0.028)	(0.025)	(0.009)	(0.025)	-0.037
Semanate d/diverged			(0.028)	(0.033)	(0.037)	(0.023)	(0.024)
Separated/divorced			-0.100	-0.204**	-0.004	-0.098	-0.099
XX7·1 1			(0.081)	(0.085)	(0.076)	(0.072)	(0.071)
Widowed			-0.069	-0.154	0.015	-0.033	-0.035
			(0.088)	(0.123)	(0.066)	(0.077)	(0.078)
Cohabiting			0.204	0.092	0.439*	0.193	0.195
			(0.173)	(0.148)	(0.186)	(0.157)	(0.157)
Same-sex relationship			0.027	-0.067	0.129	0.021	0.020
			(0.128)	(0.242)	(0.093)	(0.118)	(0.121)
Single (ref.)							
Social contacts						0.174***	0.181***
						(0.006)	(0.016)
Marital status * social contacts							
Married							-0.015
							(0.015)
Separated/divorced							0.032
							(0.022)
Widowed							-0.019
							(0.021)
Cohabiting							0.013
č							(0.046)
Same-sex relationship							-0.009
r							

### Table 2 (Full version): Interpreting the role of collectivism in the relationship between marital status and subjective wellbeing

#### Single (ref.)

(0.046)

Controls
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Gender (female)	0.037	0.037	0.040	0.065**	0.016	0.048*	0.049*
	(0.023)	(0.023)	(0.023)	(0.024)	(0.024)	(0.020)	(0.020)
Age	-0.011***	-0.011***	-0.011***	-0.012***	-0.010***	-0.008**	-0.008**
	(0.002)	(0.002)	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)
Education	0.006	0.006	0.005	0.006	0.005	0.004	0.004
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Unemployment status							
Paid work	0.470***	0.471***	0.485***	0.535***	0.421***	0.499***	0.499***
	(0.069)	(0.069)	(0.071)	(0.081)	(0.058)	(0.069)	(0.068)
In education	0.829***	0.830***	0.829***	0.840***	0.827***	0.759***	0.754***
	(0.101)	(0.101)	(0.103)	(0.106)	(0.113)	(0.105)	(0.106)
Sick/disabled	-0.336***	-0.336***	-0.330***	-0.366***	-0.295***	-0.297***	-0.295***
	(0.037)	(0.037)	(0.037)	(0.039)	(0.064)	(0.039)	(0.039)
Retired	0.690***	0.691***	0.711***	0.774***	0.632***	0.678***	0.677***
	(0.068)	(0.068)	(0.067)	(0.073)	(0.060)	(0.064)	(0.064)
Community/military service	0.549***	0.551***	0.606***	0.712***	0.453*	0.569***	0.567***
	(0.142)	(0.142)	(0.139)	(0.110)	(0.205)	(0.152)	(0.152)
Housework	0.511***	0.513***	0.520***	0.566***	0.463***	0.509***	0.509***
	(0.097)	(0.097)	(0.095)	(0.109)	(0.085)	(0.093)	(0.093)
Other	0.421***	0.423***	0.441***	0.516***	0.341***	0.421***	0.419***
	(0.076)	(0.076)	(0.077)	(0.094)	(0.073)	(0.074)	(0.073)
Unemployed (ref.)							
Subjective economic security	0.768***	0.769***	0.763***	0.755***	0.773***	0.736***	0.736***
	(0.059)	(0.059)	(0.059)	(0.057)	(0.065)	(0.058)	(0.058)
Religiosity	0.063***	0.063***	0.062***	0.056***	0.066***	0.059***	0.059***
	(0.007)	(0.007)	(0.007)	(0.006)	(0.009)	(0.007)	(0.007)
GDP per capita (/10,000)	0.326*	0.379**	0.352***	0.361***	0.319***	0.316***	0.314***
	(0.130)	(0.131)	(0.065)	(0.060)	(0.052)	(0.063)	(0.063)
ESS-round dummies							
ESS-round 2 (2004)	-0.135***	-0.194***	-0.194***	-0.145*	-0.236***	-0.177**	-0.177**
	(0.038)	(0.050)	(0.058)	(0.062)	(0.069)	(0.060)	(0.060)
ESS-round 3 (2006)	-0.042	-0.112*	-0.105*	-0.059	-0.151**	-0.097*	-0.096*
	(0.051)	(0.047)	(0.043)	(0.052)	(0.049)	(0.045)	(0.045)
ESS-round 4 (2008)	-0.043	-0.110*	-0.103*	-0.092*	-0.110*	-0.087*	-0.087*
	(0.059)	(0.047)	(0.040)	(0.046)	(0.046)	(0.040)	(0.040)
ESS-round 5 (2010)	0.076	0.011	0.015	0.038	-0.004	0.031	0.032
	(0.040)	(0.040)	(0.043)	(0.044)	(0.065)	(0.044)	(0.045)
ESS-round 6 (2012)	0.208***	0.138**	0.143**	0.135**	0.158*	0.172**	0.172**
	(0.056)	(0.053)	(0.052)	(0.049)	(0.071)	(0.055)	(0.055)
ESS-round 1 (2002) (ref.)							
N	212,683	212,683	212,683	108,594	104,089	212,683	212,683
Log pseudolikelihood	-350919.9	-350903.2	-350565.2	-181751.1	-168632.0	-348479.6	-348465.3

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05Multilevel model; 212,683 individuals in 28 countries and 6 ESS-rounds; unstandardized coefficients shown; robust standard errors in parentheses

	Model 1	Model 2
Independents		
Constant	4.963***	4.915***
	(0.088)	(0.304)
Collectivism	-0.017	-0.068
	(0.043)	(0.035)
Controls		
Marital status		
Married		-0.399***
		(0.032)
Separated/divorced		-0.201***
		(0.035)
Widowed		-0.126*
		(0.057)
Cohabiting		-0.387***
		(0.048)
Same-sex relationship		-0.371***
-		(0.050)
Single (ref.)		
Conformity		-0.043***
-		(0.013)
Gender (female)		-0.055*
		(0.027)
Age		-0.016***
C		(0.001)
Education		0.004
		(0.003)
Employment status		~ /
Paid work		-0.084*
		(0.040)
In education		0.422***
		(0.034)
Sick/disabled		-0.195***
		(0.056)
Retired		0 179**
Refiled		(0.064)
Community/military service		0.243
community/minitary service		(0.134)
Housework		0.064
LIGUDO WOIR		(0.036)
Other		0 110*
		(0.050)
Unemployed (ref.)		(0.050)
Subjective economic security		0 163***
Subjective economic security		(0.021)
		(0.021)

## APPENDIX C: EFFECT OF COLLECTIVISM ON SOCIAL CONTACTS

Table 3: Examining the effect of national collectivism on frequency of social contacts

(0.061)	(0.069)
-0.127*	-0.180*
(0.046)	(0.057)
-0.038	-0.106
(0.041)	(0.068)
-0.028	-0.112
(0.048)	(0.072)
-0.000	-0.065
(0.037)	(0.054)
-0.042	-0.106*
	(0.116)
	0.287*
	(0.005)
	0.022***
	-0.042 (0.037) -0.000 (0.048) -0.028 (0.041) -0.038 (0.046) -0.127* (0.061)

 
 Log pseudolikelihood
 -333692.6
 -323794.9

 \*\*\* p<0.001, \*\* p<0.01, \* p<0.05</td>
 Multilevel model; 212,683 individuals in 28 countries and 6 ESS-rounds; unstandardized
 coefficients shown; robust standard errors in parentheses