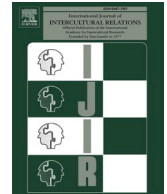




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Brief report

Cultural religiosity moderates the relationship between being in love and subjective well-being[☆]

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ABSTRACT

Previous research indicates that the significance of love varies considerably across cultures. In the present study, we introduce an often-overlooked cultural factor – religiosity – to explore its influence on the relationship between being in love and five dimensions of subjective well-being. We conducted two cross-cultural studies with 31,608 participants from 117 samples across 83 societies. Our findings reveal that, in more religious cultures, being in love is a weaker predictor of well-being compared to more secular cultures in four out of six models. These findings indicate that national context influences the relative importance of various emotions and experiences for well-being, underscoring the need to account for cultural context in research on love.

Introduction

Love is a universal human experience that encompasses a range of feelings, thoughts, and actions directed toward another person (Jankowiak & Fischer, 1992). According to the Triangular Theory of Love, it consists of three main elements – intimacy, passion and commitment (Sternberg, 1997). Intimacy denotes feelings of closeness and connected, passion revolves around physical attraction and romantic desire, while commitment is about the decision to maintain the relationship over time. Love has been repeatedly shown to be positively associated with subjective well-being (Hendrick et al., 1988; Riehl-Emde et al., 2003). Subjective well-being is a broad and multidimensional concept that refers to the quality and state of an individual's life, including emotional, psychological, and social aspects. Individuals in loving relationships tend to experience greater positive affect (Stanton et al., 2014), happiness (Kawamichi et al., 2016), life satisfaction (Kim & Hatfield, 2004) and relationship satisfaction (Vedes et al., 2016). However, the strength of these effects may vary across sociocultural contexts (Karandashev, 2015). Previous studies have indicated significant cultural differences in the subjective importance of love (Dion & Dion, 1996). For example, individuals in more individualistic cultures are more likely to view love as a prerequisite for marriage compared to those in collectivistic cultures (Levine et al., 1995), while love levels tend to be higher in collectivistic contexts (Sorokowski et al., 2023). Moreover, the connotations of love can differ across cultures; for example, in Chinese, love can carry strong “hedonically negative” implications (Shaver et al., 1992). This raises the question: what other socio-cultural factors influence the importance and function of love?

Religion can be defined as a system of belief in and response to the divine, including sacred books, cultic rituals, and ethical practices of the adherents (O'Collins & Farrugia, 1991). Religiosity is an important yet understudied cultural dimension, characterized by substantial variation across societies (Gebauer & Sedikides, 2021; Joshanloo & Gebauer, 2020). It offers a promising avenue for expanding psychological research beyond WEIRD (Western, Educated, Industrialized, Rich and Democratic; Henrich et al., 2010) contexts, which predominantly represent more secular societies (Crabtree, 2010; although there are notable exceptions to this rule, e.g. some WEIRD countries like the United States or Italy score relatively high on the religiosity index). On a technical level, cultural religiosity quantifies the average religiosity within a geographical unit, such as a country or region. Theoretically, it reflects a set of cultural norms to follow (Gebauer & Sedikides, 2021). Previous research has demonstrated that cultural religiosity moderates various

intrapersonal processes, including the effects of personal income on psychological adjustment (Gebauer et al., 2013), financial hardship on life satisfaction (Berkessel et al., 2021), injustices on happiness (Joshanloo & Weijers, 2016) and self-esteem on well-being (Zheng & Xu, 2024). Importantly, religiosity also affects the relationship between emotions and subjective well-being; in more religious countries, positive and negative affect are less correlated with life satisfaction than in more secular ones (Joshanloo, 2019). Since love has a strong affective component, and can be categorized as an emotion, cultural religiosity might influence love's function as well.

We hypothesize that in more religious cultures, being in love is a weaker predictor of well-being compared to more secular cultures. This is primarily due to significant differences in meaning-making systems between religious and secular cultures, which in turn impact well-being (Park, 2005). The relationship between romantic love and well-being differs significantly between religious and secular cultures, with the former often prioritizing collective and religious sources of well-being over personal feelings. In religious cultures, the pursuit of well-being is often rooted in a sense of service to a higher power and a strong sense of community belonging, which can provide a powerful collective source of happiness. In contrast, secular societies tend to emphasize personal feelings and individual experiences as a primary source of happiness (Joshanloo & Weijers, 2024), which can lead to a greater emphasis on romantic love and close relationships as a means of achieving life satisfaction. In religious cultures, the emphasis on practices such as self-transcendence,

Table 1
Demographic information and descriptive statistics for country-level variables (Study 1).

Culture	<i>n</i>	Age (<i>SD</i>)	% Female	% Student	Cultural religiosity	Human Development Index	Self-expression vs harmony
Argentina	175	32.43 (11.35)	73.71	0.00	0.63	0.84	-
Australia	340	37.85 (16.86)	57.06	43.24	0.32	0.95	1.74
Austria	320	28.59 (10.14)	79.38	66.88	0.46	0.92	1.80
Bhutan	119	22.62 (2.43)	61.34	100.00	0.97	0.65	-
Brazil	606	27.43 (10.13)	54.29	55.45	0.89	0.75	1.92
Canada	240	21.89 (4.77)	70.83	100.00	0.41	0.94	1.80
Chile	221	21.55 (3.11)	54.75	100.00	0.68	0.85	2.29
China	199	20.58 (4.70)	70.35	100.00	0.16	0.77	1.90
Colombia	466	32.96 (12.36)	50.86	0.00	0.87	0.75	2.04
Croatia	140	30.69 (11.12)	84.29	100.00	0.64	0.86	2.13
Czech Republic	201	22.23 (3.48)	50.25	100.00	0.25	0.90	2.11
El Salvador	240	26.90 (8.72)	57.92	100.00	0.87	0.67	-
Estonia	200	28.80 (10.53)	70.50	100.00	0.20	0.89	1.97
France	216	31.75 (10.45)	82.41	0.00	0.29	0.90	2.21
Georgia	234	20.05 (2.56)	53.42	100.00	0.80	0.80	2.06
Germany	106	22.43 (3.40)	77.36	91.51	0.39	0.94	1.89
Ghana	266	22.21 (2.36)	50.75	100.00	0.94	0.63	1.61
Greece	427	24.69 (5.75)	59.48	53.63	0.71	0.89	1.53
Guatemala	111	20.51 (2.37)	68.47	100.00	0.88	0.66	-
Hong Kong	291	21.16 (2.23)	37.11	100.00	0.25	0.95	1.71
Hungary	831	20.89 (2.39)	73.16	100.00	0.40	0.85	2.06
Iceland	353	30.88 (11.58)	79.89	79.04	0.35	0.96	1.83
Indonesia	198	26.70 (11.89)	51.01	100.00	0.98	0.70	1.53
Iran	199	34.42 (9.44)	46.23	100.00	0.82	0.77	-
Ireland	244	20.96 (3.18)	57.79	100.00	0.55	0.96	1.78
Italy	288	25.14 (4.52)	53.47	100.00	0.65	0.90	2.29
Japan	198	19.56 (1.23)	38.89	100.00	0.25	0.93	1.73
Lithuania	296	25.65 (10.92)	72.97	75.68	0.41	0.88	-
Luxembourg	220	25.77 (9.30)	66.36	79.09	0.35	0.92	1.99
Malaysia	190	20.82 (1.62)	67.89	100.00	0.90	0.80	1.60
Mexico	175	20.80 (3.91)	56.00	100.00	0.63	0.76	2.21
Netherlands	194	19.41 (1.85)	9.79	100.00	0.31	0.94	-
Nigeria	137	19.82 (1.51)	78.10	100.00	0.95	0.53	1.74
Norway	250	22.66 (4.83)	78.40	100.00	0.22	0.96	1.86
Pakistan	240	21.78 (3.46)	46.67	100.00	0.94	0.54	-
Poland	472	32.51 (14.77)	68.64	51.91	0.67	0.88	2.05
Portugal	260	28.61 (12.61)	65.38	59.62	0.62	0.87	1.92
Romania	290	22.30 (6.12)	49.66	100.00	0.82	0.82	2.03
Russia	270	19.76 (1.55)	62.96	100.00	0.33	0.82	2.12
Saudi Arabia	178	39.37 (13.43)	80.34	100.00	0.96	0.88	1.75
Serbia	210	20.11 (1.58)	50.48	100.00	0.55	0.80	2.15
Slovakia	311	21.55 (1.95)	52.41	100.00	0.48	0.86	2.20
South Korea	208	22.43 (3.52)	47.60	100.00	0.45	0.93	1.58
Switzerland	344	25.93 (6.00)	19.48	93.02	0.41	0.96	-
Taiwan	210	19.99 (1.41)	64.29	100.00	0.46	0.93	1.53
Turkey	202	31.99 (11.68)	52.97	100.00	0.80	0.84	2.24
Ukraine	210	19.02 (2.26)	53.81	100.00	0.43	0.77	2.45
United Kingdom	146	20.71 (3.04)	29.45	100.00	0.30	0.93	1.71
United States of America	446	21.37 (5.81)	69.96	100.00	0.65	0.92	1.96

harmony, and contentment (Joshani, 2013, 2014) can dilute the relative importance of romantic love as a source of life satisfaction, as individuals' sense of well-being is grounded in a broader range of values and experiences. Love itself may not be construed as a sense of personal fulfillment, rather as other-oriented dispositions, including material obligations and care (Coe, 2012). In addition, while major religious traditions generally support love within marriage, they often view intense, passionate love as potentially destabilizing to social order and morality (Hatfield & Rapson, 2011). This perspective may further reduce the positive influence of love on well-being in religious contexts. Furthermore, religious traditions discourage divorce (Marks, 2005), possibly leading individuals to derive more satisfaction from long-term stability than from the emotional highs of love. Additionally, religious individuals often prioritize collectivistic values over individual autonomy and self-fulfillment (Cukur et al., 2004), suggesting that romantic relationships in religious cultures may be less freely chosen, thereby diminishing love's positive impact on well-being. Lastly, from an evolutionary perspective, love plays an important role in mating, facilitating pair-bonding, procreation, and child-rearing, which are vital for species propagation (Fletcher et al., 2015). In more religious societies, religious norms and values often fulfill this role (e.g., marriage, child-rearing; Boulis & Torgler, 2024; Lehrer & Chiswick, 1993), potentially reducing the relative importance of love for successful reproduction and, as a result, individual well-being.

Accordingly, we propose a cultural moderation hypothesis in which the strength of the relationship between the experience and expression of love and well-being vary as a function of cultural context. Specifically, we expect the positive relationship between love and well-being to be attenuated in religious cultures, which are characterized by a strong emphasis on collective and religious sources of well-being, and to be strengthened in secular cultures, where individualistic and hedonic values are more prevalent. To test our hypothesis, we conducted two cross-cultural studies involving 31,608 participants across 117 samples from 83 countries and regions. We measured participants' experiences of being in love and assessed various well-being indicators, including life satisfaction, relatedness need satisfaction, optimism, meaning in life, and harmony in life. We included many distinct measures of well-being because it is a multifaceted concept – the more aspects are measured simultaneously, the better the ability to draw conclusions about well-being in general. We expected that the correlation between being in love and well-being would be weaker in more religious cultures. To ensure the robustness of our findings, we included the Human Development Index and Self-expression versus harmony cultural model of selfhood as relevant culture-level covariates and a set of individual-level controls, such as positive affect, to evaluate the unique influence of being in love on well-being.

Method

Data and participants

In both studies, we aimed to collect data from at least 50 countries, targeting a minimum of 200 participants for country. Ultimately, our datasets consisted of 12,888 participants across 49 societies (Study 1) and 18,720 participants across 68 societies (Study 2). Due to financial constraints, we recruited post-secondary education students, supplemented by participants from the general population. The final samples included 83 % students in Study 1 and 61 % in Study 2. The mean ages of participants were 25.18 years ($SD = 9.51$) for Study 1, and 30.43 years ($SD = 12.04$) for Study 2. In Study 1, 60 % identified as female; in Study 2, 63 % identified as female. Questionnaires were prepared in English and translated by collaborators who also administered the surveys and provided the dataset. Sociodemographic information for each subsample can be found in the Tables 1 and 2.

To examine the moderating role of cultural religiosity, we used on the National Religiosity Index from Joshani and Gebauer (2020), which is based on Gallup World Poll data from 2005 to 2017. This index represents the average percentage of respondents in a society who report that religiosity is an important part of their daily life. We matched data for all 49 societies in Study 1 and for 67 out of 68 societies in Study 2. In addition, we obtained Human Development Index (HDI) data from 2022 to assess the robustness of our findings. Less developed societies tend to be more religious, so controlling for HDI allowed us to isolate the unique influence of cultural religiosity. We matched HDI data for all societies in Study 1 and Study 2.

Measures

Being in love (Studies 1 and 2)

Being in love was assessed using two items from Kryš et al. (2022), where participants rated how often they experience (item 1) and express (item 2) love on a 9-point scale from "never" to "all the time". This measurement does not define the term "love" to the participants. The goal of this is to not impose a specific definition of love onto the participants as love can be interpreted and understood differently in different cultural contexts. Instead, we aimed to capture the experience and expression of love in a culturally-sensitive way. Since item intercorrelation between was high ($r = .84$ for Study 1 and $r = .88$ for Study 2), a composite measure was created by averaging the two items, yielding a Cronbach's alpha of .91 for Study 1 and .94 for Study 2.

Life satisfaction (Studies 1 and 2)

Life satisfaction was measured using the Satisfaction With Life Scale (Diener et al., 1985), consisting of five items. We included this scale because it measures an important facet of well-being as defined by the Subjective Well-Being (SWB) framework (Diener et al., 1985). A sample item is "In most ways, your life is close to your ideal". Participants responded on a 9-point scale from 1 (doesn't describe me at all) to 9 (describes me exactly) in Study 1 and on a 5-point scale from 0 (doesn't describe me at all) to 4 (describes me exactly) in Study 2. Cronbach's alpha was .85 for both studies.

Table 2
Demographic information and descriptive statistics for country-level variables (Study 2).

Culture	<i>n</i>	Age (<i>SD</i>)	% Female	% Student	Cultural religiosity	Human Development Index	Self-expression vs harmony
Algeria	981	35.57 (12.61)	47.09	46.38	0.93	0.75	2.12
Angola	83	24.62 (6.95)	40.96	100.00	0.87	0.59	2.02
Australia	675	52.21 (19.34)	40.59	10.81	0.32	0.95	1.74
Austria	252	27.13 (8.87)	23.41	90.48	0.46	0.93	1.80
Azerbaijan	199	25.44 (9.96)	55.28	50.25	0.42	0.76	2.34
Bangladesh	96	27.76 (6.43)	33.33	80.21	0.98	0.67	1.75
Bosnia and Herzegovina	356	30.8 (12.70)	23.60	67.70	0.71	0.78	2.09
Brazil	104	30.36 (9.66)	29.81	74.04	0.89	0.76	1.92
Bulgaria	204	33.34 (10.72)	47.55	100.00	0.39	0.80	2.15
Canada	281	21.62 (3.35)	16.37	96.80	0.41	0.94	1.80
Chile	179	29.15 (9.88)	22.35	76.54	0.68	0.86	2.29
China	235	26.51 (6.77)	49.36	60.00	0.16	0.79	1.90
Colombia	252	29.3 (11.00)	47.22	58.73	0.87	0.76	2.04
Croatia	203	36.05 (13.68)	12.32	44.33	0.64	0.88	2.13
Czech Republic	343	34.60 (13.96)	10.79	27.41	0.25	0.90	2.11
Denmark	102	26.02 (3.77)	17.65	46.08	0.19	0.95	1.88
Ecuador	256	28.22 (9.00)	42.97	37.89	0.86	0.76	1.97
Egypt	70	28.04 (7.74)	58.57	44.29	0.98	0.73	1.89
Estonia	249	37.33 (13.72)	23.69	62.65	0.20	0.90	1.97
France	164	36.38 (14.50)	13.41	74.39	0.29	0.91	2.21
Georgia	170	35.06 (15.17)	22.94	48.82	0.80	0.81	2.06
Germany	320	29.06 (10.26)	33.13	70.63	0.39	0.95	1.89
Ghana	179	24.70 (3.51)	41.90	87.15	0.94	0.60	1.61
Greece	202	33.63 (5.45)	66.34	0.99	0.71	0.89	1.53
Hong Kong	137	22.36 (3.20)	27.01	94.16	0.25	0.96	1.71
Hungary	529	24.19 (6.56)	24.95	98.11	0.40	0.85	2.06
Iceland	372	29.41 (9.04)	20.43	70.16	0.35	0.96	1.83
India	87	24.00 (3.61)	22.99	94.25	0.82	0.64	1.96
Indonesia	241	20.58 (2.75)	17.01	91.29	0.98	0.71	1.53
Ireland	262	25.54 (7.60)	36.26	98.47	0.55	0.95	1.78
Italy	136	33.07 (12.86)	42.65	55.88	0.65	0.91	2.29
Japan	133	21.74 (1.23)	24.81	98.50	0.25	0.92	1.73
Jordan	242	34.33 (12.02)	34.71	40.50	0.94	0.74	2.05
Kazakhstan	205	28.16 (11.64)	28.29	68.29	0.45	0.80	2.08
Kenya	177	28.75 (6.19)	55.93	30.51	0.94	0.60	2.04
Luxembourg	168	39.04 (19.58)	21.43	42.26	0.35	0.93	1.99
Madagascar	252	29.30 (7.59)	40.48	29.37	0.92	0.49	1.89
Malaysia	2137	29.13 (6.62)	19.37	21.67	0.90	0.81	1.60
Mexico	165	34.17 (15.14)	17.58	38.18	0.63	0.78	2.21
Morocco	150	29.35 (7.90)	62.67	30.67	0.95	0.70	1.91
Nigeria	297	24.48 (8.00)	26.60	62.96	0.95	0.55	1.74
North Macedonia	97	32.51 (12.55)	27.84	50.52	0.76	0.77	1.89
Norway	92	38.27 (15.34)	23.91	32.61	0.22	0.97	1.86
Palestine	188	40.52 (11.54)	38.30	23.40	0.94	0.72	1.96
Peru	213	30.68 (13.98)	32.39	40.38	0.83	0.76	2.13
Philippines	248	26.31 (8.26)	29.84	64.92	0.95	0.71	1.82
Poland	227	28.81 (7.94)	48.90	43.61	0.67	0.88	2.05
Portugal	176	36.89 (15.85)	26.14	46.02	0.62	0.87	1.92
Romania	225	26.22 (8.85)	36.89	79.56	0.82	0.83	2.03
Russia	414	23.23 (3.62)	39.61	98.07	0.33	0.82	2.12
Saudi Arabia	131	26.15 (9.50)	35.88	70.23	0.96	0.88	1.75
Senegal	176	24.62 (4.82)	60.80	99.43	0.97	0.52	2.00
Serbia	193	24.11 (3.49)	30.05	100.00	0.55	0.81	2.15
Slovakia	272	39.43 (13.08)	13.97	50.74	0.48	0.85	2.20
South Africa	475	31.70 (11.12)	49.47	40.84	0.85	0.72	1.93
South Korea	201	22.44 (2.12)	39.80	100.00	0.45	0.93	1.58
Spain	262	25.63 (7.23)	30.15	85.88	0.39	0.91	2.11
Suriname	140	31.52 (11.52)	47.14	39.29	0.79	0.69	1.93
Taiwan	204	27.36 (6.78)	24.02	55.39	0.46	0.92	1.53
Trinidad and Tobago	192	28.34 (9.46)	20.83	78.13	0.85	0.81	1.98
Turkey	1278	31.02 (11.85)	41.71	48.36	0.80	0.86	2.24
Uganda	124	29.13 (5.75)	42.74	39.52	0.95	0.55	1.84
Ukraine	167	31.23 (11.99)	23.95	73.05	0.43	0.73	2.45
United Arab Emirates	97	21.96 (6.39)	15.46	94.85	-	0.94	1.80
United Kingdom	194	29.38 (12.35)	20.62	68.04	0.30	0.94	1.71

(continued on next page)

Table 2 (continued)

Culture	n	Age (SD)	% Female	% Student	Cultural religiosity	Human Development Index	Self-expression vs harmony
United States of America	373	30.92 (12.03)	28.95	59.52	0.65	0.93	1.96
Venezuela	318	37.10 (12.04)	43.71	22.96	0.78	0.70	2.00
Vietnam	198	24.92 (6.70)	34.85	59.09	0.34	0.73	2.02

Relatedness need satisfaction (Study 2)

Relatedness need satisfaction was measured with four items from [Chen et al. \(2015\)](#). We included this scale because it measures an important facet of well-being as defined by Self-Determination Theory ([Deci & Ryan, 2000](#)). A sample item is “You feel that people you care about also care about you”. Participants responded on a 5-points scale from 0 (doesn’t describe me at all) to 4 (describes me exactly), with a Cronbach’s alpha of .83.

Meaning in life (Study 2)

Meaning in life was measured using the Presence subscale of Meaning in Life Questionnaire ([Steger et al., 2006](#)), consisting of four items. We included this scale because it measures an important facet of well-being as defined by the PERMA model of well-being ([Seligman, 2011](#)). A sample item is “Your life has a clear sense of purpose”. Participants rated their agreement on a 5-points scale from 0 (doesn’t describe me at all) to 4 (describes me exactly), with a Cronbach’s alpha of .89.

Harmony in life (Study 2)

Harmony in life was measured using the Harmony in Life Scale ([Kjell et al., 2016](#)), which includes four items. Although harmony in life is not explicitly part of any of the leading models of well-being, it was included in the study because it is an important facet of well-being in East Asian cultural contexts ([Li, 2006](#)). A sample item is “Most aspects of your life are in balance”. Participants responded on a 5-points scale from 0 (doesn’t describe me at all) to 4 (describes me exactly), with a Cronbach’s alpha of .79.

Optimism (Study 2)

Optimism was assessed with one item: “Looking ahead ten years into the future, what do you expect your life overall will be like at that time?”. It was included in the study because previous research showed that it’s closely linked to better well-being outcomes ([Alarcon et al., 2013](#)). Participants responded on a 11-points scale from 0 (the worst possible) to 10 (the best possible).

Positive affect (Studies 1 and 2)

Positive affect was a composite index of various emotional states ([Krys et al., 2022](#)). Study 1 measured fifteen distinct positive emotions, while Study 2 focused on three positive emotions: excitement, relaxation, and gratitude. This scale was included as a control in order to isolate the unique correlation between love and well-being measures. Participants rated the frequency of experiencing and expressing these emotions on a 9-point scale from “never” to “all the time”. Cronbach’s alpha was .94 for Study 1 and .83 for Study 2. This variable was used as a covariate to ensure the effects identified were specifically related to being in love.

Self-expression versus harmony cultural model of selfhood (Study 2)

We used the Culture and Identity Research Network Self-Construal Scale Version 3 (CIRN-SCS-3; [Yang, 2018](#)) to capture the Self-Expression versus Harmony dimension. For this study, four items were selected, with two representing the self-expression pole and two representing the harmony pole. Participants responded on a 5-point scale from 0 (doesn’t describe me at all), to 4 (describes me exactly). A sample item is “You prefer to express your thoughts and feelings openly, even if it may sometimes cause conflict.” The Self-Expression versus harmony dimension can be used as both an individual-level and societal-level measure. In this study, we used it as a measure of societal-level context and treated it as a control variable to check for the robustness of our hypothesized effects. Cronbach’s alpha on the societal level was .77. In order to keep the analyses comparable between Study 1 and 2, we used the society-level scores from Study 2 in Study 1 as well. We matched data for 40 out of 49 societies in Study 1.

Sociodemographics (Studies 1 and 2)

Age and gender (female = 1, male = 0) were controlled for in all analyses.

Statistical analysis

To account for the clustering of individuals within countries, we employed a multilevel modeling approach in all analyses. Level 1 predictors were group-mean centered, while Level 2 predictors were grand-mean centered. The models allowed both intercepts and slopes to vary across groups.

Results

The first pair of models included “being in love” (Level 1), “cultural religiosity” (Level 2) and cross-level interaction between these

variables, with life satisfaction as the outcome variable. Covariates included age, gender, and positive affect at Level 1, and the Human Development Index and Self-expression versus harmony at Level 2. The models were identical except for the dataset used (Study 1 or Study 2). The resulting models are shown in Table 3. Both models indicated that being in love was positively related to life satisfaction. Crucially, both models featured a cross-level interaction in the hypothesized direction; however, only in Study 2 did this interaction reach conventional levels of statistical significance ($p < .05$). In Study 1, the interaction was not significant ($p = .09$). This interaction suggests that in more religious societies, the correlation between being in love and life satisfaction is weaker than in more secular societies. The discrepancy between Study 1 and 2 might be due to lower power (as a result of a smaller group-level sample size) in detecting the effect in the former.

The next set of models included being in love (Level 1), cultural religiosity (Level 2), and the cross-level interaction between being in love and cultural religiosity. The outcome variables were relatedness need satisfaction, optimism, meaning in life and harmony in life. The models also accounted for covariates: age, gender, and positive affect (Level 1) and Human Development Index and Self-expression versus harmony (Level 2). Results are presented in Table 3. In all models, being in love was positively related to the outcome variables. Crucially, the cross-level interaction was in the hypothesized direction and achieved statistical significance in three out of four models. This indicates that in more religious societies, the correlation between being in love and well-being was weaker than in more secular societies.

Discussion

The findings of the present studies indicate that cultural religiosity moderates the relationship between love and subjective well-being in four out of six models, highlighting the importance of sociocultural context in love studies. In more religious cultures, the weaker predictive power of being in love on well-being suggests that love is less central to well-being compared to secular cultures. This divergence may stem from the distinct meaning-making systems in religious versus secular societies. Religious cultures often provide powerful sources of well-being, such as spirituality, communal belonging, and virtue practices, which may diminish the relative importance of love. Conversely, in secular cultures, where these frameworks are weaker, love and romantic relationships may assume greater significance as drivers of well-being.

These results can be interpreted through several theoretical lenses. From attachment theory perspective, many religious individuals form deep relationships with God, serving as an attachment figure (Cherniak et al., 2021). In less religious societies, where such figures are less prevalent, individuals may focus more on significant others, such as romantic partners, for personal well-being. In addition, from a self-determination theory perspective, relationships with God or fellow believers can fulfill basic psychological needs, particularly relatedness (Deci & Ryan, 2000). In less religious societies, where these connections may be less available, individuals may rely more on romantic relationship for social support.

The present research contributes to the ongoing debate between WEIRD and Majority World perspectives in psychology by demonstrating how cultural religiosity shapes the love-well-being relationship. It shows that the influence of love on well-being is weaker in more religious cultures, often found in Majority World contexts, compared to secular WEIRD societies. This finding challenges the assumption of universality in psychological processes, often critiqued in WEIRD-centric research that emphasizes individualistic and secular values, such as romantic love, as central to well-being. By focusing on cultural religiosity, this study underscores the importance of integrating Majority World perspectives into psychological research, particularly in studies on love.

However, the studies have limitations that future research should address. First, the reliance on cross-sectional data limits the ability to infer causality or determine the directionality of the observed relationships. Longitudinal studies are needed to explore these dynamics further. Second, self-reported measures for love and well-being may introduce biases, including social desirability or cultural norms affecting responses. Furthermore, the meaning of “being in love” may vary culturally and linguistically, which might not have been fully captured by the measures used. Comparing groups within a single country that share a language but differ in religiosity

Table 3
Multilevel models for love and five outcome variables (Study 1 and 2).

	Life satisfaction		Relatedness	Optimism	Meaning	Harmony
	Study 1	Study 2	Study 2	Study 2	Study 2	Study 2
	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)
<i>Level 1</i>						
Intercept	5.45*** (0.11)	2.10*** (0.03)	2.92*** (0.02)	8.24*** (0.07)	2.55*** (0.02)	2.40*** (0.02)
In love	0.05*** (0.01)	0.04*** (0.00)	0.05*** (0.00)	0.07*** (0.01)	0.04*** (0.00)	0.03*** (0.00)
Gender	0.11 (0.05)	0.04** (0.01)	0.07*** (0.01)	0.25*** (0.04)	-0.03 (0.02)	-0.02 (0.01)
Age	0.00 (0.00)	0.01*** (0.00)	0.00 (0.00)	-0.02*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
Positive affect	0.51*** (0.02)	0.19*** (0.01)	0.13*** (0.01)	0.25*** (0.02)	0.19*** (0.01)	0.17*** (0.01)
<i>Level 2</i>						
Cultural religiosity	0.43 (0.57)	-0.02 (0.16)	-0.12 (0.12)	0.72* (0.35)	0.10 (0.12)	-0.05 (0.13)
HDI	1.28 (1.48)	0.30 (0.35)	0.35 (0.27)	-0.26 (0.76)	-0.95*** (0.26)	-0.30 (0.27)
Self-expression	0.62 (0.45)	0.30* (0.15)	0.27* (0.11)	0.78* (0.32)	0.56*** (0.11)	0.31* (0.12)
<i>Cross-level interaction</i>						
In love x Cultural religiosity	-0.07 (0.04)	-0.04** (0.01)	-0.04** (0.01)	-0.10** (0.03)	-0.04** (0.01)	-0.01 (0.01)

Note: *** $p < .001$; ** $p < .01$; * $p < .05$

levels may help address this. Another limitation is the treatment of “love” as a singular concept without differentiating its types. Different types of love, such as passionate and companionate love (Hatfield & Rapson, 1993), may relate differently to well-being and religiosity. It might be hypothesized that for passionate love –intense and potentially viewed with suspicion by many religions – the moderating influence of religiosity would be stronger than for companionate love. Furthermore, the study assumed a uniform influence of religiosity across diverse cultures, whereas different religious traditions and denominations may shape the role of love in well-being in distinct ways. Lastly, individual-level factors such as relationship quality or attachment styles were not controlled for, potentially confounding the observed love-well-being relationship.

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Ethical statement

Ethics review board at Polish Academy of Sciences reviewed and accepted the research presented in this manuscript (approval no. #22/XI/2019).

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Declaration of Generative AI and AI-assisted technologies in the writing process

During the preparation of this work the authors used ChatGPT in order to enhance the language quality of the manuscript. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

Declaration Competing of Interest

None.

References

- Alarcon, G. M., Bowling, N. A., & Khazon, S. (2013). Great expectations: A meta-analytic examination of optimism and hope. *Personality and Individual Differences, 54*(7), 821–827. <https://doi.org/10.1016/j.paid.2012.12.004>
- Berkessel, J. B., Gebauer, J. E., Joshanloo, M., Bleidorn, W., Rentfrow, P. J., Potter, J., & Gosling, S. D. (2021). National religiosity eases the psychological burden of poverty. *Proceedings of the National Academy of Sciences, 118*(39), Article e2103913118. <https://doi.org/10.1073/pnas.2103913118>
- Boulis, C., & Torgler, B. (2024). Religion as a determinant of relationship stability. *Journal for the Scientific Study of Religion, 63*(2), 281–306. <https://doi.org/10.1111/jssr.12896>
- Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., Van der Kaap-Deeder, J., & Verstuyf, J. (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation and Emotion, 39*, 216–236. <https://doi.org/10.1007/s11031-014-9450-1>
- Cherniak, A. D., Mikulincer, M., Shaver, P. R., & Granqvist, P. (2021). Attachment theory and religion. *Current Opinion in Psychology, 40*, 126–130. <https://doi.org/10.1016/j.copsyc.2020.08.020>
- Coe, C. (2012). Transnational parenting: Child fostering in Ghanaian immigrant families. In R. Capps, & M. Fix (Eds.), *Young Children of Black Immigrants in America: Changing Flows, Changing Faces (Chapter 8)*. Washington, D.C.: Migration Policy Institute. <https://doi.org/10.7282/T32B90PJ>
- Crabtree, S. (2010, August). *Religiosity highest in world's poorest nations*. Retrieved from (<http://www.gallup.com/poll/142727/religiosity-highest-world-poorest-nations.aspx>).
- Cukur, C. S., De Guzman, M. R. T., & Carlo, G. (2004). Religiosity, values, and horizontal and vertical individualism—collectivism: A study of Turkey, the United States, and the Philippines. *The Journal of Social Psychology, 144*(6), 613–634. <https://doi.org/10.3200/SOCP.144.6.613-634>
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*(1), 71–75. https://doi.org/10.1207/s15327752jpa4901_13
- Dion, K. K., & Dion, K. L. (1996). Cultural perspectives on romantic love. *Personal Relationships, 3*(1), 5–17. <https://doi.org/10.1111/j.1475-6811.1996.tb00101.x>
- Fletcher, G. J., Simpson, J. A., Campbell, L., & Overall, N. C. (2015). Pair-bonding, romantic love, and evolution: The curious case of Homo sapiens. *Perspectives on Psychological Science, 10*(1), 20–36. <https://doi.org/10.1177/1745691614561683>
- Gebauer, J. E., & Sedikides, C. (2021). Cultural religiosity: A neglected but powerful dimension of culture. *Current Opinion in Psychology, 40*, 73–78. <https://doi.org/10.1016/j.copsyc.2020.08.027>
- Hatfield, E., & Rapson, R. L. (1993). *Love, sex, and intimacy: Their psychology, biology, and history*. Harper Collins College Publishers.
- Hatfield, E., & Rapson, R.L. (2011). Culture and passionate love. In F. Deutsch, M. Boehnke, U. Kühnen, & K. Boehnke (Eds.), *Rendering borders obsolete: Cross-cultural and cultural psychology as an interdisciplinary, multi-method endeavor: Proceedings from the 19th International Congress of the International Association for Cross-Cultural Psychology*. <https://doi.org/10.4087/SQRG1671>
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences, 33*(2-3), 61–83. <https://doi.org/10.1017/S0140525X0999152X>
- Jankowiak, W. R., & Fischer, E. F. (1992). A cross-cultural perspective on romantic love. *Ethnology, 31*(2), 149–155. <https://doi.org/10.2307/3773618>
- Joshanloo, M. (2013). A comparison of Western and Islamic conceptions of happiness. *Journal of Happiness Studies, 14*, 1857–1874. <https://doi.org/10.1007/s10902-012-9406-7>
- Joshanloo, M. (2014). Eastern conceptualizations of happiness: Fundamental differences with western views. *Journal of Happiness Studies, 15*, 475–493. <https://doi.org/10.1007/s10902-013-9431-1>
- Joshanloo, M. (2019). Cultural religiosity as the moderator of the relationship between affective experience and life satisfaction: A study in 147 countries. *Emotion, 19*(4), 629–636. <https://doi.org/10.1037/emo0000469>
- Joshanloo, M., & Gebauer, J. E. (2020). Religiosity's nomological network and temporal change. Introducing an extensive country-level religiosity index based on Gallup World Poll data. *European Psychologist, 25*(1), 26–40. <https://doi.org/10.1027/1016-9040/a000382>
- Joshanloo, M., & Weijers, D. (2024). Ideal personhood through the ages: tracing the genealogy of the modern concepts of wellbeing. *Frontiers in Psychology, 15*. <https://doi.org/10.3389/fpsyg.2024.1494506>
- Karandashev, V. (2015). A cultural perspective on romantic love. *Online Readings in Psychology and Culture, 5*(4). <https://doi.org/10.9707/2307-0919.1135>
- Kawamichi, H., Sugawara, S. K., Hamano, Y. H., Makita, K., Matsunaga, M., Tanabe, H. C., & Sadato, N. (2016). Being in a romantic relationship is associated with reduced gray matter density in striatum and increased subjective happiness. *Frontiers in Psychology, 7*. <https://doi.org/10.3389/fpsyg.2016.01763>
- Kim, J., & Hatfield, E. (2004). Love types and subjective well-being: A cross-cultural study. *Social Behavior and Personality: an International Journal, 32*(2), 173–182. <https://doi.org/10.2224/sbp.2004.32.2.173>
- Kjell, O. N. E., Daukantaitė, D., Hefferon, K., & Sikström, S. (2016). The harmony in life scale complements the satisfaction with life scale: Expanding the conceptualization of the cognitive component of subjective well-being. *Social Indicators Research, 126*, 893–919. <https://doi.org/10.1007/s11205-015-0903-z>
- Krys, K., Yeung, J. C., Capaldi, C. A., Lun, V. M. C., Torres, C., van Tilburg, W. A., & Vignoles, V. L. (2022). Societal emotional environments and cross-cultural differences in life satisfaction: A forty-nine country study. *The Journal of Positive Psychology, 17*(1), 117–130. <https://doi.org/10.1080/17439760.2020.1858332>
- Lehrer, E., & Chiswick, C. (1993). Religion as a determinant of marital stability. *Demography, 30*, 385–404. <https://doi.org/10.2307/2061647>
- Levine, R., Sato, S., Hashimoto, T., & Verma, J. (1995). Love and marriage in eleven cultures. *Journal of Cross-Cultural Psychology, 26*(5), 554–571. <https://doi.org/10.1177/0022022195265007>
- Li, C. (2006). The Confucian ideal of harmony. *Philosophy East and West, 56*(4), 583–603. <https://doi.org/10.1353/pew.2006.0055>
- Marks, L. (2005). How does religion influence marriage? Christian, Jewish, Mormon, and Muslim perspectives. *Marriage Family Review, 38*(1), 85–111. https://doi.org/10.1300/J002v38n01_07
- O'Collins, G., & Farrugia, E. G. (1991). *A concise dictionary of theology*. New York: Paulist Press.
- Park, C. L. (2005). Religion as a meaning-making framework in coping with life stress. *Journal of Social Issues, 61*(4), 707–729. <https://doi.org/10.1111/j.1540-4560.2005.00428.x>
- Seligman, M. (2011). *Flourish*. New York, NY: Free Press.
- Shaver, P., Wu, S., & Schwartz, J. C. (1992). Cross-cultural similarities and differences in emotion and its representation: A prototype approach. In M. S. Clark (Ed.), *Review of Personality and Social Psychology, 13* pp. 175–212. Thousand Oaks, CA: Sage.
- Sorokowski, P., Kowal, M., Sternberg, R. J., Aavik, T., Akello, G., Alhababha, M. M., & Sorokowska, A. (2023). Modernization, collectivism, and gender equality predict love experiences in 45 countries. *Scientific Reports, 13*(1), 773. <https://doi.org/10.1038/s41598-022-26663-4>
- Stanton, S. C., Campbell, L., & Loving, T. J. (2014). Energized by love: Thinking about romantic relationships increases positive affect and blood glucose levels. *Psychophysiology, 51*(10), 990–995. <https://doi.org/10.1111/psyp.12249>
- Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The meaning in life questionnaire: assessing the presence of and search for meaning in life. *Journal of Counseling Psychology, 53*(1), 80–93. <https://doi.org/10.1037/0022-0167.53.1.80>

- Sternberg, R. J. (1997). Construct validation of a triangular love scale. *European Journal of Social Psychology*, 27(3), 313–335. [https://doi.org/10.1002/\(SICI\)1099-0992\(199705\)27:3<313::AID-EJSP824>3.0.CO;2-4](https://doi.org/10.1002/(SICI)1099-0992(199705)27:3<313::AID-EJSP824>3.0.CO;2-4)
- Vedes, A., Hilpert, P., Nussbeck, F. W., Randall, A. K., Bodenmann, G., & Lind, W. R. (2016). Love styles, coping, and relationship satisfaction: A dyadic approach. *Personal Relationships*, 23(1), 84–97. <https://doi.org/10.1111/perc.12112>
- Yang, S. (2018). *Multidimensional self-construals: Testing the model and refining measurement*. Doctoral dissertation, University of Sussex, UK.