A Cross-Cultural Examination of Gender Role Ideology and Gender Inequality in

Romantic Relationships

A thesis submitted for the degree of Doctor of Philosophy

by

Suzanne Margaret Deplidge Hill

Department of Life Sciences

Brunel University London

September 2019

Declaration

I hereby declare that this thesis has not been and will not be submitted in whole or in part to another University for the award of any other degree. The three studies described in this thesis have been submitted, or are in preparation for submission, to the following journals:

Hill, S., Marshall, T. C. & Imada, T. (invited revision). Making and breaking relationships across cultures: The influence of gender role ideology. *Journal of Cross-Cultural Psychology*.

Hill, S., Imada, T., Willard, A. & Marshall, T. C. (submitted). Gender role ideology, unequal task division, and life outcomes across 36 countries. *Journal of Marriage and Family*.

Hill, S., Imada, T. & Marshall, T. C. (in preparation). Relationship breakups in the West and India: Similarities, differences, and the role of gender role ideology and parental influence on mate choice. *Journal of Social and Personal Relationships*.

Acknowledgements

This thesis, and all that led me here, was not a singular effort and would not have been possible with the support, encouragement, and guidance of so many people. My supervisors, past and present, Toshie Imada, Tara Marshall, and Aiyana Willard, whose expertise, guidance and kindness throughout this journey has been invaluable. I have learnt so much from each of them. Special thanks to Tara whose passion for all things women, culture and statistics sparked the fire within me as well.

I am forever grateful to my family, especially my wonderful parents, for their unwavering support in everything I do. Thank you for making me the woman I am today. To my sisters, Elizabeth, Melanie, and Alison, thank you for occasionally being impressed by me, and always keeping me grounded.

A PhD can be very lonely, and I am so thankful to have our group to celebrate and commiserate with. Thank you all, but especially my cohort ('oh, you guys!'): Anna, Kat, Jaye and Tom. Thank you also to my wonderful colleagues at NatCen, especially Ziska Marcheselli and Laura Brown, for being so supportive and kind.

Last, but by no means least, to my friends Lauren Porter and Rachel Myers, who have literally lived this last year of ups and downs and everything in between with me. Thank you for the love, laughs, and 2am YouTube videos.

Abstract

Gender inequality in societies and individuals' traditional attitudes toward women, or gender role ideology, two closely related constructs, have implications for the lives of individuals all over the world, and one area where these can be clearly observed is in heterosexual romantic relationships. Exploring the influences, functions and impact of gender inequality at the country-level and gender role ideology at the individual-level on relationships across different cultural contexts allows us to gain a deeper understanding of these concepts, and whether relationships differ or are broadly similar around the world. The three studies described here aim to do this by examining the associations between gender inequality and gender role ideology, as well as other related factors, across the life course of relationships: from their formation, through maintenance, to dissolution. What are the antecedents of traditional gender role ideology in the early stages of relationships, and how does influence from parents, sexism and feelings of power feed into this? How do traditional gender role ideology and high gender inequality impact the division of household labour in established relationships, and what effect does this have on subsequent life outcomes? Finally, do reasons for breakups, influence from others, and perceptions of breakups differ between cultural groups, and is this related to gender role ideology? Study 1a found that, for US, UK, Indian and Brazilian groups, individuals' internalized cultural values such as interdependence (a measure of connectedness with others in the same group or family) was related to traditional gender role ideology through parental influence on mate choice, benevolent sexism, and sense of power. Traditional gender role ideology and parental influence on mate choice were subsequently related to the increased likelihood that early-stage relationships would last in Study 1b. Study 2, using a large multinational dataset,

found that higher levels of gender inequality and more traditional gender role ideology were related to traditional divisions of childcare, and this was mediated by traditional expectations about the division of childcare. The same pattern was observed for housework. Discrepancies between expectation and actual division of tasks were not related to subjective health, but those participants, especially women, who did more childcare and housework than expected reported higher subjective wellbeing. Study 3a asked Indian and Western (US and UK) participants about their most recent relationship breakup and found that both groups cited similar reasons for their breakups, although the Indian group cited more influence from parents and family members, and the Western group cited lifestyle reasons, such as moving away for work or university, more. In Study 3b a new sample of Indian and Western participants were asked about their perceptions of the breakups described in Study 3a, finding that traditional gender role ideology was related to lower beliefs that the reason for breaking up was sufficient, and Indian descriptions were rated as more gender role traditional and less balanced than Western descriptions. Together these findings suggest broad similarities between cultures across the course of relationships, from the impact of traditional gender role ideology and parental influence on mate choice on relationship longevity in Study 1, through the association between traditional ideology and traditional share of household work in Study 2, and finally similar reasons given for relationship breakups in Study 3. The General Discussion reviews these findings and their contribution to cross-cultural and relationship research and theory, as well as discussing the practical implications and directions for future research.

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Overall Introduction

Gender inequality has implications for the lives of both men and women across the world. Women's rights movements, attempting to improve gender equality, have been occurring in the Western world[1] (typically defined as North America, the northwest of Europe, New Zealand and Australia – see Note 7, Henrich, Heine & Norenzayan, 2010), for centuries (Crawford, 2003; Wollstonecraft, 1792). They are apparent across the rest of the world too, though often in different ways to those seen in the West depending on the specific cultural context (Levitt & Merry, 2009); for example, women in Saudi Arabia have defied traditional rule by participating in exercise classes or have broken the law by driving (BBC News, April 2015). Broadly, the rating of a country or society's gender equality or inequality is calculated using measures such as the number of women participating in the workforce, the age at which girls stop attending school and the number of women with university-level education, maternal mortality rates, adolescent pregnancy rates, and female life expectancy as compared to male (United Nations Development Programme, 2018). Countries classified by the UN Development Programme as highly gender equal include Denmark, Sweden and the Netherlands, and countries classified as very gender unequal include India, Mexico and Argentina. The United Kingdom and the United States sit roughly in the middle of the scale. The high levels of gender equality

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[1] The terminology used when defining cultures and separating different cultural groups and countries into categories is particularly difficult, and as yet I don't believe we have found the ideal way to do this. Each classification comes with its own problems, from the assumption of further progress in some countries in the descriptors 'developed' and 'developing'. Throughout this thesis I have chosen to use the categories 'Western' and 'non-Western' as research has shown that these closely align with the main topics under investigation, gender inequality and gender role ideology: generally Western cultures such as those in Europe and North America have lower levels of gender inequality and less traditional gender role ideology than non-Western cultures such as those in Asia. Whilst the definition is originally based on somewhat arbitrary geographical categorisation, I believe it most closely reflects the construct I am discussing and measuring, at least until a more comprehensive measure is developed. I also use the terms 'traditional' and 'non-traditional', referring specifically to traditionalism in terms of gender role ideology and other attitudes, rather than any other meaning such as those with evolutionary connotations.

in Scandinavian countries have often been attributed to the policy context, for example more equal parental leave policies (Lister, 2009), whilst the low levels of gender equality in countries such as India have been attributed to embedded cultural and religious practices (Klingorová & Havlíček, 2015).

Researchers have identified a number of factors that can be linked to gender equality, for example the perceptions of women in a culture (Brandt, 2011; Glick et al., 2000), female workforce participation including the amount women are paid and judgments of working mothers (Brescoll & Uhlmann, 2005; Haller & Hoellinger, 1994; Stickney & Konrad, 2007), and the influence of families in making decisions for young people (Buunk, Park & Duncan, 2010; Talbani & Hasanali, 2000). Gender role ideology, the set of attitudes and beliefs about the roles men and women ought to perform based on their biological sex (Boehnke, 2011) is closely related to gender inequality at the country-level (Fuwa, 2004), such that individuals in countries with higher levels of inequality tend to have more traditional attitudes.

Gender equality also has implications for women's safety, as inequality can make women more susceptible to gender-based violence, something that has been observed across cultures (Abrams, Viki, Masser & Bohner, 2003; Das et al., 2014), as well as increased infant mortality (Homan, 2017). Similarly, traditional gender role ideology is associated with greater perpetration of dating violence (Reed, Silverman, Raj, Decker & Miller, 2011) and higher levels of rape myth acceptance (Hill & Marshall, 2018). A report by the World Health Organisation (2013) estimates that over a third of women worldwide are subjected to gender-based violence during their lifetime, and 30% of all women may experience intimate partner violence.

Intimate partner violence, and homicide, are extreme manifestations of gender inequality in romantic relationships, but there are also many other impacts on

individuals, for example restriction of female freedom in dating (Talbani & Hasanali, 2000), uneven divisions of labour (Lachance-Grzela & Bouchard, 2010), and lower intimacy resulting in relationship breakdown (Marshall, 2008). Past research has examined the antecedents and consequences of gender inequality in heterosexual relationships, yet cultural influences, and ways in which relationships may differ across cultures, have not been thoroughly explored. There are a number of cultural values, beliefs and norms that are likely to have differing influence on gender inequality in the context of relationships (e.g. sexism, gender role traditionalism, parental influence on mate choice), as past research has found cultural differences in these domains (Boehnke, 2011; Buunk et al., 2010; Glick et al., 2000). In addition to individuals' attitudes as described above, country-level factors such as societal or country gender inequality (e.g. women's lower workforce participation and university education rates) are also related to relationships. Individual-level attitudes refer to the beliefs and ideologies held by individual people, whilst societal-level gender inequality refers to national measures of inequality and the ways in which entire countries may differ from one another. In relationships, for example, gender inequality is visible in the sphere of the home in terms of childcare and housework, such that women often do a far greater share of housework in countries with higher levels of gender inequality (Sjöberg, 2004).

Heterosexual romantic relationships are an ideal microcosm for the study of gender inequality, as many adhere in some way to traditional gender roles (Sanchez, Fetterolf & Rudman, 2012), and research in this area across cultures allows us to attempt to answer some important questions. To what extent does romantic relationship formation reflect culturally-specific gender inequality? And how do gender inequality and gender role ideology play out in the maintenance of

relationships, through sharing of household work? Lastly, are there differences between traditional (defined here as typically non-Western cultures with traditional gender role ideology) and non-traditional cultures in relationship breakups, what are the reasons for these, and how people do perceive them? Here I will review the literature on gender inequality and gender role ideology, as well as related factors, in the context of romantic relationships.

Literature Review

Romantic Relationships

Relationships are universal in that almost every human being experiences them with their families, friends and romantic partners. This universality makes relationships an ideal realm for cross-cultural research as we are able to explore similarities and differences across cultures. Gender inequality and gender role ideology, as defined briefly above and in more detail in the following section, have been consistently studied within monogamous heterosexual relationships. Although some research has been conducted on other romantic relationships, for example same-sex relationships (Goldberg & Allen, 2013; Wade & Donis, 2007), the rationale for primarily studying heterosexual relationships in this research when looking at gender roles, is that these relationships almost always adhere in some way to gender conventions (i.e., there is a male and a female partner) (Sanchez et al., 2012), making observing gender role traditionalism, or lack thereof, clearer for researchers. Many scales measuring gender role ideology refer to the roles of wives and husbands (e.g., the Attitudes Toward Women scale: Spence, Heimlich & Stapp, 1973), making it difficult to apply findings to other relationship types. Whilst the lack of measures designed for use in both heteronormative and non-heteronormative relationships is an

issue that researchers need to address, the current research is focussing on heterosexual relationships to gain a clearer understanding of the functions of gender inequality and gender role ideology in this domain.

There is a wealth of research looking at the effects and impact of gender role ideology in relationships, for example share of housework and childcare (Kan & Laurie, 2016; Scott, Alwin & Braun, 1996), marital satisfaction (Sanchez et al., 2012), and intimate partner violence (Reyes, Foshee, Niolon, Reidy & Hall, 2016). In spite of this research, there is a dearth of studies examining cultural influences on, and antecedents of, gender roles in relationships, as many studies focus on Western cultural norms. This is a key gap in the literature, as we know that gender role ideology and related attitudes can differ across cultures (Boehnke, 2011; Glick et al, 2000), and therefore it is to be expected that the function of ideology within relationships might also differ.

Gender Inequality and Gender Role Ideology

Gender inequality, at the country- or society-level, refers to how equal men and women are in that particular group. It usually includes measures such as female workforce participation, female education, adolescent pregnancy, maternity mortality, and life expectancy, comparing male and female members of particular countries to establish their gender inequality (United Nations, 2018). For example, an equal society would have equivalent proportions of men and women in the workforce with higher levels of education. Country-level gender inequality, i.e. the differences between countries in their levels of inequality, tends to be related to individual-level gender role ideology, i.e. the attitudes and beliefs held by individual people irrespective of their country, such that individuals in less equal countries tend to follow more traditional gender roles (Fuwa, 2004; Inglehart & Norris, 2003; Sjöberg,

2004). The direction of the association is unclear, however. When a country has policies promoting gender equality such as shared parental leave, individuals tend to have less traditional gender role ideology (Sjöberg, 2004), but has policy driven ideology or vice versa?

Gender roles have been defined as expectations applied to individuals based on their biological sex, and gender role ideology refers to individual attitudes and beliefs about the appropriate roles for men and women based on their gender (Boehnke, 2011). Gender role ideology is conceptualised as a single dimension, with traditional ideology at one end and less traditional, or egalitarian, ideology at the other. Traditional gender roles are typically those defined by biological sex, whereby the male partner goes out to work and is the main breadwinner, whilst the female partner takes care of the home and children (Brescoll & Uhlmann, 2005; Read, 2003). Non-traditional gender roles, on the other hand, afford more freedom to everyone, allowing men and women to each perform roles within the home and workplace (Blee & Tickamyer, 1995; Fan & Marini, 2000). Gender stereotypes, including ideas about traditional roles, have been found to be consistent across cultures. The personality traits assigned to men and women are stable across cultures, with men typically described as confident and tough, and women as emotional and warm (Davis, Williams & Best, 1982). Women typically have less traditional gender role ideology than do men (Olson et al., 2007), as do those who are younger, less religious, and with higher levels of education (Fernández, Castro & Lorenzo, 2004; Phinney & Flores, 2002; Röder, 2014).

In the Western world, there has been a marked shift towards more egalitarian gender role ideology and a liberalisation of attitudes toward women[2] (Boehnke, 2011; Bolzendahl & Myers, 2004). Attitudes in the US tended to become more liberal between 1974 and 1998, especially in areas such as sexual behaviour and family responsibilities (Bolzendahl & Myers, 2004). Similarly, Boehnke (2011) found that attitudes had tended to liberalise in 24 different regions (including Great Britain and the United States) and egalitarian gender roles were related to higher levels of educational attainment and having had a mother who was part of the workforce. It is impossible, however, to determine the direction of causality especially as there are exceptions to the pattern, for example Taiwanese women, who are often part of the workforce, still hold relatively traditional gender role ideology, similar to that of women in South Korea and Japan (Takeuchi & Tsutsui, 2016), although these traditional ideas were related to women's roles in the home and family rather than their economic participation. Most research has focussed on attitudes toward women and how these are changing, but attitudes toward fathers working part-time or not at all (because they were providing full-time childcare as 'stay at home dads') have also become more tolerant between the 1970s and 2010s (Donnelly et al., 2016), suggesting that this liberalisation of attitudes relates to both male and female gender roles. Despite these findings, negative attitudes have been observed toward parents who defy traditional gender roles, for example working mothers and stay-at-home fathers, although working mothers tend to be viewed less negatively if they are perceived as working out of financial necessity rather than for personal fulfilment (Brescoll & Uhlmann, 2005). Similarly, British men frequently believe that maternal

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[2] Throughout this thesis the terms 'gender role ideology' and 'attitudes toward women' are both used. Gender role ideology is used more frequently, to refer to the broader group of attitudes relating to the gender roles of both men and women. Occasionally 'attitudes toward women' is used when the research discussed has focussed specifically on gender role ideologies related to women's roles.

employment has harmful effects on children, despite other evidence suggesting an overall shift towards more liberal attitudes (Scott et al., 1996).

Although there has been a general cultural shift towards more egalitarian gender roles, gender differences in gender role ideology have consistently been observed, with male participants generally reporting more traditional gender role ideology and attitudes than female participants. Olson and colleagues (2007) found that women generally supported gender equality more than men did, and Phinney and Flores (2002) found, in a study of acculturation and attitudes, that female participants generally had more egalitarian attitudes than did male participants. This gender difference in particular is to be expected, as women directly benefit from a reduction in endorsement of traditional roles. For example, those with less traditional views tended to have higher earnings than those with traditional views (Stickney & Konrad, 2007), whilst men currently benefit from the patriarchal system (e.g. around the world men are consistently paid more than, even non-traditional, women; United Nations, 2015).

Cross-cultural differences have also been observed, with people in Western countries such as Sweden and Britain reporting less traditional attitudes than those non-Western countries such as India and Japan (Hill & Marshall, 2018; Nordenmark, 2004). Iranians living in the US were found to have less traditional attitudes across a range of gender-related factors than were Iranians living in Iran (Hojat et al., 1999), suggesting a liberalising effect of exposure to a more gender equal culture. Asian American students were found to have more traditional attitudes toward women than did their European American counterparts (Mori, Bernat, Glenn, Sellez & Zarate, 1995), and African American men tended to have more liberal attitudes toward women than did White American men (Blee & Tickamyer, 1995). This finding is

echoed in the UK in research by Kan and Laurie (2016) who suggest that this difference might be due to a history of black women consistently being in paid work making traditional gender roles somewhat redundant for this group. Whilst research suggests that there has been an overall shift in Western cultures towards more egalitarian attitudes since the 1970s (Boehnke, 2011), research by Achyut and colleagues (2011) in India found that only a minority of adolescents have attitudes endorsing high gender equality, although young women were more likely to hold gender equitable attitudes than young men suggesting that this gender difference extends to non-Western samples.

Gender Role Ideology in Romantic Relationships. One facet of traditional gender role ideology is the importance placed on entering and remaining in a romantic relationship (Kaufman, 2000). Within romantic relationships gender role ideology is associated with factors including mate preferences, division of household labour, and outcomes such as wellbeing and relationship longevity. Across cultures, men who endorse traditional gender role ideology tend to seek younger partners who embody traditional female qualities such as good housekeeper and cook, whilst women who endorse traditional gender role ideology are more likely to seek partners who demonstrate their ability to provide (e.g. through good earning potential) (Eastwick et al., 2006; Johannesen-Schmidt & Eagly, 2002). Traditional gender role ideology is associated with more traditional divisions of labour, with female partners undertaking the most childcare and housework (Evertsson, 2014; Gaunt, 2006; Nitsche & Grunow, 2016). Lastly, traditional gender role ideology may be problematic for outcomes such as life and relationship satisfaction, especially for women (Sanchez et al., 2012), however findings in this area are mixed, with other research suggesting that

individuals who do not adhere to traditional gender roles may experience a decrease

in life satisfaction (Matud, Bethencourt & Ibáñez, 2014).

Sexism

In addition to gender role ideology and attitudes toward women, sexism can

impact gender equality. Ambivalent sexism refers to two separate constructs, hostile

and benevolent sexism (Glick & Fiske, 1996), which can be studied independently or

together as ambivalent sexism. These concepts are tied strongly to gender role

ideology. Hostile sexism refers to the set of negative beliefs held about women who

do not comply with traditional gender roles, for example those who have chosen to

pursue a career instead of being more family-oriented. Benevolent sexism, on the

other hand, refers to the perceived positive beliefs held about women who do conform

to traditional gender roles. Whilst these benevolent beliefs can be seen as positive and

encouraging, they also reinforce a potentially damaging ideology, for example with

views such as '*a good woman should be set on a pedestal by her man*' (Ambivalent

Sexism Inventory, Glick & Fiske, 1996), which places judgments of women as good

or otherwise in the hands of her partner. One of the main functions of sexism,

especially within romantic relationships, is to maintain the present social hierarchy,

depicting men and women as complementary to one another and therefore

emphasising the importance of gender differences in roles (Cikara, Lee, Fiske &

Glick, 2009).

To assess individuals' level of hostile and benevolent sexism, Glick and Fiske

(1996) developed the Ambivalent Sexism Inventory (ASI). The scale measures hostile

and benevolent sexism and is applicable across 19 countries, both Western (e.g.

England and the United States) and non-Western (e.g. Japan and South Korea) (Glick

et al., 2000). The national average score on benevolent and hostile sexism scales also

predicted gender inequality at the country-level across all 19 countries. Other studies have also observed sexism across cultures; for example, a large-scale study by Brandt (2011), using World Values Study data, found evidence of sexism in 57 countries, and a potential link between sexism and national levels of gender inequality, such that higher levels of sexism amongst individuals in a country predicted increased gender inequality in the country. Brandt's (2011) study used a measure of sexism that was correlated with Glick & Fiske's (1996) measure of hostile, but not benevolent, sexism, further emphasising the need for differentiation between these constructs.

In addition to the scale for ambivalent sexism directed towards women, Glick and Fiske (1999) developed the Ambivalence Toward Men Inventory, which measures both hostile and benevolent attitudes toward men. These constructs are applicable across countries (including England, the Netherlands, Taiwan and Argentina) (Glick et al., 2004), and have been found to be correlated with ambivalent sexism (toward women), as well as being related to country-level gender inequality such that higher levels of ambivalence toward men are correlated with higher country inequality (Glick et al., 2004). Ambivalent attitudes toward men are also associated with stereotypes about men, in particular views of them as having high status and power (Glick et al., 2004).

Gender differences have been observed in measures of sexism, including hostile and benevolent sexism, with women generally reporting lower levels of sexism than men (Brandt, 2011; Glick & Fiske, 1997). This gender difference is to be expected, as with the difference in gender role ideology seen above, as sexist beliefs can be seen as negative (e.g. hostile or derogatory) and degrading towards women or place a burden on women to abide by traditional roles. A study of men and women living in Britain, Poland and South Africa consistently found that women were lower

on measures of both hostile and benevolent sexism than were men (Zawisza, Luyt &

Zawadzka, 2015).

Sexism in Romantic Relationships. In the sphere of relationships, hostile and

benevolent attitudes toward men and women are related to the shaping of partner

ideals (Lee, Fiske, Glick & Chen, 2010), and preferences for traditional marriage

practices (Robnett & Leaper, 2013) and home-oriented and submissive female mates

(Chen, Fiske & Lee, 2009). Sexism also has implications for relationship quality, with

research finding that women who were higher in benevolent sexism were more likely

to perceive issues in their relationships and experience declines in relationship

satisfaction (Hammond & Overall, 2013; Hammond & Overall, 2014).

Sense of Power in Relationships

Decision-making power within relationships, in both Western cultures

(Meyers-Levy & Loken, 2015) and non-Western cultures (Conry-Murray, 2009) and

by both men and women, tends to be attributed to the husband, and men's traits are

consistently associated with higher power than are women's traits across cultures

(Glick et al., 2004). These gender differences are to be expected, given that research

suggests that other factors evidencing a gender difference such as sexism (Robnett &

Leaper, 2013) and traditional gender roles (Glick & Fiske, 1996) are related to sense

of power.

Within relationships, power can influence the individual expectations partners

have over the way in which gender roles are performed within their relationships.

Defined as the impact individual expectations have over role performance, Hiller and

Philliber (1986) found that power was associated with household work such that

husband's expectations are powerful predictors of actual performance, with the male

partner's expectation that his wife will do the majority of the housework translating into her doing the majority.

The endorsement of benevolent sexism reinforces gender imbalances in power, as related behaviours such as chivalry reward women for abiding by traditional gender roles at the expense of their own individual power and agency (Glick & Fiske, 1996). In the discussion of their finding that endorsement of benevolent sexism was related to traditional relationship preferences, Robnett and Leaper (2013) suggest that this is related to benevolent sexism as a manifestation of hidden power – that is, the power that stems from cultural practices such as chivalry, which remain largely unquestioned as they have become a key part of the cultural context. In addition to hidden power, traditional gender roles ascribe differing levels of power to individuals in relationships by giving men control over decision making (for example, when to propose marriage; Robnett & Leaper, 2013), and socialising women to expect that such decisions would be made for them.

Parental Influence in Relationships

There are many influences on traditional attitudes, including parents and family. A study of Indian families in the United States found a strong correlation between children's and parents' gender role ideology; moreover, adolescent daughters rather than sons, and those born in the US as opposed to elsewhere, were more likely to hold liberal views (Dasgupta, 1998), suggesting influence over children's attitudes from parents and other sources. There might also be a link between mothers' gender role ideology and those of their daughters, with more egalitarian attitudes related to higher levels of maternal education for both mothers and daughters (Jan & Janssens, 1998).

Another area where there are clear associations between the attitudes of parents and their children, and one where clear cultural differences can be observed, is in the influence of parents and other family members over romantic relationships. Those from interdependent or collectivist, generally non-Western, cultures such as India and China tend to report higher levels of influence from parents over their romantic relationships (Buunk et al., 2010) than do those from individualistic cultures in the West. This difference is to be expected given the prevalence of arranged marriage in countries such as India (Desai & Andrist, 2010), a practice which is rarely observed in the Western world, except in migrant groups (Penn, 2010).

Research suggests that levels of parental influence are one of the best predictors of attitudes about love (Witt, Murray & Kim, 1992). Parental involvement in relationships can manifest in several ways across the course of relationships and might function in different ways at different points. Adolescent girls in South Asian migrant communities in Canada reported that their parents often had control over their social activities and chose partners for them to maintain traditional gender roles in marriage (Talbani & Hasanali, 2000). Older parents in Mediterranean countries tend to live more closely to, and participate more in the lives of, their grown children than do parents in Northern European countries (Hank, 2007), and Mexican Americans report more feelings of obligation toward their family than do Anglo-Americans (Freeberg & Stein, 1996). Finally, in India couples in so-called 'love matches' report having to break up because they are from differing castes and would not receive parental approval (although often these relationships ended before parents were aware of them; Medora, 2007).

Life Outcomes and Relationship Longevity

Relationships, and their quality, have an impact on people's wellbeing, health and relationship satisfaction, and these may subsequently affect relationship longevity. Research shows that being in a relationship, especially one of a high quality, can have positive effects on the wellbeing of individuals (Holt-Lunstad, Birmingham & Jones, 2008; Kim & McKenry, 2002), and this appears to be relatively consistent across cultures (Diener, Gohm, Suh & Oishi, 2000), but what part does gender role ideology and gender inequality, if any, play in this?

In a review of the literature on traditional gender roles in the intimate relationships in the United States, Sanchez, Fetterolf, and Rudman (2012) noted that traditional gender roles still dominated heterosexual romantic relationships. They found that this could be harmful to the marital and relationship satisfaction experienced by both men and women, though particularly for women due to the potentially debilitating nature of the female submissive role. It is important to note here, however, that this review focused on US studies and therefore this finding cannot be directly applied to other cultures, especially those where changes in women's roles such as increased access to higher education has not yet happened in the same way. In fact, some research has suggested that women's wellbeing in the US was actually better before the women's liberation movement of the 1970s, when it experienced a dip before returning to similar levels in the 1990s (Zuckerman, Li & Diener, 2017).

Some research suggests that adherence to traditional gender roles may harm individuals' satisfaction in life and with relationships. Indian participants' endorsement of traditional gender roles was related to their anticipation of future difficulties in married life (Bejanyan, Marshall & Ferenczi, 2014). Other research,

however, suggests that adherence to traditional gender role ideology is positively associated with life satisfaction. Matud, Bethencourt and Ibáñez (2014) found that, along with social support and self-esteem, internalisation of masculinity and femininity were related to life satisfaction in a large Spanish sample, suggesting that satisfaction is related to embodying traditional gender traits. It is possible that the effects of gender role ideology function differently in different relationships. For example, likelihood of divorce was reduced in couples with a traditional division of labour (i.e. the female partner doing housework whilst the male partner worked for an income), but this effect was only present when wives endorsed traditional gender role ideology (Kalmijn, de Graaf & Poortmann, 2004), suggesting that a mismatch between individuals' ideology and their lived experience may have negative consequences for their relationships.

Turning to relationship longevity, gender role ideology and other attitudes for example sexism can have strong effects. Women who endorsed benevolent sexism were more likely to perceive issues in their relationships and reported an increased willingness to break up with partners they deemed less than ideal (Hammond & Overall, 2013; Hammond & Overall, 2014). Other research has found that traditional gender role ideology was associated with lower levels of relationship intimacy and in turn higher likelihood of breaking up (Marshall, 2008) for Chinese Canadians.

As described above, parental influence on mate choice can also influence relationship longevity, with couples who are from differing castes and therefore not 'ideal' partners reporting breaking up (Medora, 2007). Parental influence might also restrict couples from breaking up, due to more conservative attitudes and opinions about divorce (Yodanis, 2005), with research finding that collectivist cultures tended

to have a lower tolerance for divorce than did individualistic cultures (Diener et al., 2000).

Overall, the picture on the associations between gender role ideology and other gender-related attitudes, and then subsequent relationship and life outcomes is mixed, with evidence for and against traditional gender role ideology being beneficial in relationships. Could these mixed findings be the result of cultural differences in the function, maintenance and ideal form of relationships and consequent perceptions of any difficulties, for example unequal divisions of labour, which may unfold?

Current Research

The current research aimed to bring together the elements discussed above into a series of studies that investigate the influences of and on gender inequality and gender role ideology across the course of relationships. Although many dimensions, such as gender role ideology and sexism, have been studied previously, much of this research has occurred in the West (Brescoll & Uhlmann, 2005; Evertsson, 2014) and therefore potential cultural influences on relationships have not been thoroughly examined. Past research has identified cultural differences in many of the factors discussed above, such as parental influence on mate choice, sexism, and gender role ideology (Buunk et al., 2010; Glick et al., 2000; Olson et al., 2007), and the aim here was, therefore, to determine whether the patterns of influence and associations between these factors exist universally or whether they function in different ways in different cultural contexts.

Three studies were conducted to examine gender inequality and gender role ideology in relationships across cultures, measuring both predictors of ideology and outcomes of inequality and ideology, as well as what these may mean for relationship longevity. The studies span the life course of relationships, looking at the early stages

and relationship formation, middle stages and maintenance, and final stages and dissolution. By looking across stages of relationships it might be possible to unpack cultural differences and similarities across these stages: for example, whilst mate preferences in the formation of relationships might be broadly similar (Eastwick et al., 2006), the reasons for relationship dissolution might differ based on factors such as cultural acceptance of divorce (Diener et al., 2000; Yodanis, 2005).

The first study focuses on the formation of relationships, including what individuals look for in a relationship and partner. The model here aimed to explore the antecedents of traditional gender role ideology, and the influence benevolent sexism, sense of power, and parental influence on mate choice may have on traditional gender role ideology. The study is longitudinal, and asked questions at two time points roughly three months apart, to attempt to more thoroughly investigate the time sequence between attitudes and relationship outcomes, giving it an advantage over cross-sectional research as it allowed for associations, rather than just correlations, to be uncovered. The participants in this study were all single or in the very early stages of a relationship, and therefore it was expected that substantial change could occur in the three months between the two time points.

Next, the second study looked at the maintenance of ongoing relationships. It utilised the International Social Survey Programme (ISSP)'s 2012 module 'Family and Changing Gender Roles' (ISSP Research Group, 2014) to explore the effect of individual-level gender role ideology and country-level gender inequality on the division of household labour (both childcare and housework) across 36 countries. It also looked at the impact this division of labour has on wellbeing and subjective health, and whether this impact might be gendered.

Lastly, the third study was about relationship breakups. Employing a situation sampling technique (Morling, Kitayama & Miyamoto, 2002: discussed in more detail in Study 3), the study was split into two parts: the first asked participants to describe their most recent breakup in detail, including the level of influence from others including parents; and the second showing a new set of participants these descriptions and asking them about their perceptions of the described situations (e.g., how likely they would be to behave in similar ways). This study aimed to determine whether there would be cultural similarities in the reasons for romantic breakups, and whether people from different cultures would rate descriptions from their own and different cultures in similar ways.

The studies[3] described here focus on cross-cultural comparisons between Western and non-Western groups. For Studies 1 and 3 primary data were collected from Western – the United Kingdom and the United States – and non-Western – India and Brazil (Study 1 only[4]) – cultures. These groups were chosen as they differ in their levels of gender inequality, with the Western countries ranking relatively high in terms of gender inequality (the UK ranks 33rd and the US 44th), and the non-Western cultures ranking much lower (Brazil ranks 90th and India 128th; United Nations, 2018). Past research on cultural differences also adopts the Western/non-Western comparison framework used here, although the non-Western countries studied tend to be East Asian (Ahrold & Meston, 2010; Mori et al., 1995; Shiota, Campos, Gonzaga, Keltner & Peng, 2010). A key motivation for using an Indian sample in this research is the noted difference in gender role ideology between Indian and other non-Western groups, for example Japan (Nordenmark, 2004), with previous cross-cultural

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[3] Prior to data collection and analysis all research questions, hypotheses, and analysis plans were pre-registered on the Open Science Framework. Links to preregistrations are available in the footnotes of each study. Where methods and analysis deviate from the original pre-registered plans this is also flagged in footnotes.

[4] Due to data collection difficulties for the Brazilian sample in Study 1, discussed in detail in that chapter, India was the only non-Western culture studied in Study 3.

comparisons showing marked differences between UK and Indian groups (Hill & Marshall, 2018). Brazil was chosen because, whilst more research is being conducted in South America (Fernández et al., 2005) there was no clear indication of where it might sit on a spectrum of traditional gender role ideology. For Study 2 a large multi-national dataset was used to test for effects of both individual-level gender role ideology and country-level gender inequality on relationship outcomes.

The cultural and attitudinal measures used across these studies reflect both established measures of cultural variation, for example interdependence at the individual-level (Barry & Beitel, 2006) and individualism at the country-level (Hofstede, 1980), and measures of gender role ideology which we know to differ between Western and non-Western groups (Chen, Fiske & Lee, 2009; Hill & Marshall, 2018). The cultural dimension of collectivism, and related interdependence, is commonly attributed to non-Western countries including India and Brazil, characterised by a focus on maintaining harmony amongst family members and strong traditional family values (Hofstede, 1980; Markus & Kitayama, 1991).

Another cultural dimension used to understand the four cultures used across these studies is gender inequality and related gender role ideology. Individuals in collectivistic cultures tend to be traditional in their gender role ideology and related attitudes, for example parental influence on mate choice (Buunk et al., 2010). Using constructs at both the individual- and country-level enables this body of research to unpack whether person (i.e. individual-level) and situation (i.e. country-level) variation might be stronger predictors of differences in gender-related aspects of romantic relationships. It is appreciated, however, that without a large-scale longitudinal sample it would be inappropriate to make inferences about cause and

effect, as we have no way of knowing whether country-level changes might impact individual attitudes or vice versa (Sjöberg, 2004).

Together, these three studies aimed to paint a picture of gender inequality and gender ideology throughout the life course of heterosexual romantic relationships, bringing together dimensions including parental influence on mate choice, sexism, and sense of power to examine the functions of gender inequality and gender role ideology, and observe the ways in which these might be consistent or different across diverse cultural groups. What are the antecedents of traditional gender role ideology? How do gender role ideology and gender inequality function in the share of household labour? Does gender role ideology, and related attitudes such as parental influence on mate choice, play a part in the dissolution of relationships? By examining these questions across Western and non-Western cultural groups the studies described here aim to uncover the ways in which these dimensions might function differently in more or less gender role traditional groups.

Study 1: Making and Breaking Relationships Across Cultures: The Influence of

Gender Role Ideology

As described above, gender inequality and gender role ideology have been studied in the context of relationships, finding that traditional gender role ideology is related to lower levels of relationship intimacy (Marshall, 2008), and a less equitable share of housework (Lachance-Grzela & Bouchard, 2010). Few studies, however, have examined both the factors that influence traditional gender role ideology and the subsequent downstream consequences of this ideology for romantic relationship formation, maintenance, and termination. Does the cultural value of connectedness with, and importance of, family (referred to as interdependence) predict traditional gender role ideology, and is this also related to parental influence, sexism and power in relationships? When partners endorse traditional gender role ideology, are their newly-formed relationships likely to last or fizzle out? Are single people who endorse traditional gender role ideology more likely to enter new relationships or remain single? And do these tendencies differ between Western and non-Western cultures? This study aims to look at gender-related factors in the early stages of relationships, between two Western countries that rank relatively highly in terms of gender equality – the United Kingdom and the United States – and two non-Western countries that rank much lower – India and Brazil. People from countries that rank low in gender equality tend to score higher on measures of interdependence (Fernández, Paez & González, 2005) and endorse more traditional gender role ideology (Boehnke, 2011). But are interdependence and gender role ideology associated with one another? The first part of this study (Study 1a) examined interdependence (i.e., connectedness with others, especially those from the same family or community; used here as an individual-level measure of a cultural value), and how it might be associated with

traditional gender role ideology and three other related factors: parental influence on relationships, benevolent sexism (i.e., rewarding women for abiding by traditional roles), and sense of power. These variables were combined into a theoretical model, illustrated in Figure 1.1, showing the influence a broader cultural value (interdependence) is expected to have over attitudes and beliefs related to relationships, including gender role ideology in marriage which may have consequences for norms and expectations within relationships. In the second part of this study (Study 1b), the impact of traditional gender role ideology and parental influence on mate choice on relationship status change (i.e. the likelihood of entering, persisting in, or ending a newly-formed relationship), was explored, along with the impact of subjective wellbeing and relationship satisfaction on relationship status change. Unpacking predictors of gender role ideology aims to provide further insight into what might influence the longevity of relationships, and how this might differ across cultures.
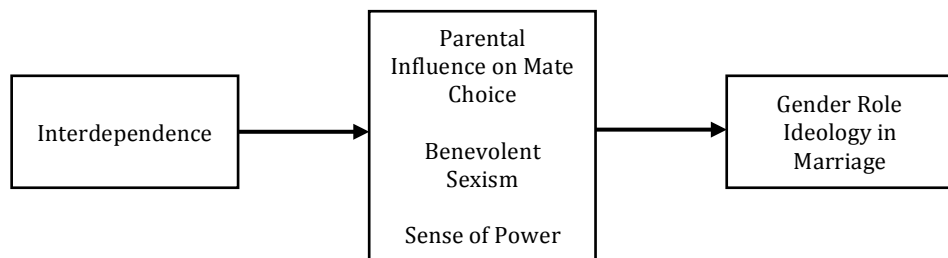
Figure 1.1. Theoretical model for Study 1a

Gender Role Ideology in Heterosexual Relationships

Gender role ideology is defined as individual attitudes and views about the appropriate roles for men and women (such that women's sphere is the home whilst men go out to work; Boehnke, 2011), with men typically endorsing more traditional gender role ideology than women (Olson et al., 2007). This ideology is closely linked to heterosexual relationships, including the formation of relationships, as many of the attitudes and beliefs it encompasses relate to the roles women and men are expected

to undertake as part of a romantic relationship (Chen et al., 2009). Differing

perceptions about these roles can influence individuals' mate choice. For example,

men who endorse traditional gender role ideology are more likely to seek younger

female partners who embody traditional female qualities (e.g., good housekeeper and

cook) whilst women who endorse traditional gender role ideology are more likely to

seek male partners with good earning potential (Johannesen-Schmidt & Eagly, 2002).

These findings have been observed across cultural contexts, but with increasing

country-level gender equality, male participants' preference for younger mates tends

to decrease (Eastwick et al., 2006), suggesting that these traditional mate preferences

are reduced when countries are more equal. Gender role ideology is also related to

both relationship maintenance, and thus the likelihood of terminating a relationship.

More traditional cultures tend to have lower divorce rates and less cultural acceptance

of divorce (Diener et al., 2000; Yodanis, 2005), perhaps because of the interdependent

emphasis on family and harmony.

Interdependence

To investigate gender role ideology and its effect on relationship trajectories,

Study 1a focused on the potential antecedents of gender role ideology:

interdependence, parental influence on mate choice, benevolent sexism, and sense of

power in heterosexual relationships. When examining cultural contexts it is useful to

include some measure of cultural orientation, for example, independent or

interdependent self-construal. People who view themselves as independent emphasize

autonomy and promoting individual goals, whereas people who view themselves as

interdependent value connection with others and promote the goals of the group

(Markus & Kitayama, 1991). Typically, Western countries such as the UK and US

tend to be lower in interdependence and higher in independence, whilst non-Western

countries such as India and Brazil tend to be higher in interdependence (Fernández et al., 2005), although the two constructs are not dichotomous and therefore individuals could be high or low in both independence and interdependence.

Higher levels of interdependence and collectivism (a cultural-level measure of similar values; Hofstede, 1980) are associated with more traditional gender roles, especially for male participants (Barry & Beitel, 2006), and more traditional parental influence on mate choice (Buunk et al., 2010). This is perhaps because interdependence encourages conformity to expected roles including traditional gender roles. Interdependence, rather than independence, is also fundamentally tied to relationship functioning through its emphasis on relational harmony and compliance with the wishes of in-group members such as family (Markus & Kitayama, 1991), with those high in interdependence more likely to make sacrifices in their relationships (Day & Impett, 2018).

Parental Influence on Mate Choice

Interdependence may be associated with a more traditional gender role ideology in heterosexual relationships because of the mediating effect of greater parental influence on mate choice typically observed in collectivist cultures (individuals in collectivistic cultures tend to be more interdependent; Hofstede, 1980). In countries such as India, where arranged marriages are commonplace (Desai & Andrist, 2010), parents play an influential role in helping to choose partners for their children – a practice not often observed in Western cultures (Buunk et al., 2010; Penn, 2011). Even when marriages are not formally arranged, parents and family members tend to have more involvement in the dating decisions of their children, especially daughters (Talbani & Hasanali, 2000). Indeed, higher collectivism is associated with higher parental influence on mate choice (Buunk et al., 2010). Parental involvement

in mate choice can manifest as restriction of activities, such as drinking alcohol and casual dating, and influence over relationship and marriage choices, including encouraging marriage at younger ages (for example, the average age at first marriage in Turkey, which is traditional and has a cultural value of close family connections, is 26.3 years, compared to 32.2 years in the less traditional United Kingdom; OECD, 2017). These parental influences may mean that traditional gender roles are maintained in marriage due to parents choosing partners for their children who reflect their own traditional ideology (Talbani & Hasanali, 2000). Children raised in a more traditional, and interdependent, environment characterised both by traditional gender role ideology and higher levels of parental influence on mate choice are likely to also have more traditional gender role ideology as adults (Jan & Janssens, 1998).

Benevolent Sexism

Another psychological mechanism by which interdependence may be connected with gender role traditionalism is benevolent sexism. Benevolent sexism is often perceived as positive because it focuses on rewarding women for abiding by traditional roles (Glick & Fiske, 1996), however it is problematic as it reinforces patriarchal ideas (Cikara et al., 2009). Americans who are higher in benevolent sexism prefer traditional marital practices, such as the male partner proposing and the female partner taking her husband's surname (Robnett & Leaper, 2013). Furthermore, men and women who are higher in benevolent sexism prefer home-oriented and submissive mates – a preference that is stronger for Chinese than American participants, which could be accounted for by their higher levels of interdependence (Chen et al., 2009). Benevolent sexism can also influence what individuals expect from heterosexual relationships; for example, women higher in benevolent sexism reported greater dissatisfaction when their relationship did not embody benevolently

sexist ideals such as cherishing and protecting traditionally feminine women

(Hammond & Overall, 2014).

Many studies have observed gender differences in sexism, with men generally

exhibiting higher levels of hostile (Glick & Fiske, 1997), benevolent (Zawisza et al.,

2015) and ambivalent (Brandt, 2011) sexism compared to women. This gender

difference is also apparent across cultures, especially for hostile sexism, as observed

by Glick and colleagues (2000) in their study of the Ambivalent Sexism Inventory

across 19 nations, although they did not find significant gender differences in

benevolent sexism.

Sense of Power in Relationships

In Western cultures (Meyers-Levy & Loken, 2015) and in non-Western

cultures (Conry-Murray, 2009) both men and women tend to attribute decision-

making power within a relationship to the husband. Interdependence has also been

linked to power, with those who are interdependent and high in power more likely to

resolve conflicts in helpful (rather than exploitative) ways (Howard, Gardner &

Thompson, 2007) and to pursue other-oriented goals (Chen & Welland, 2002) perhaps

to retain harmony in family and relationships. Power can also be linked to other

attitudes; for example, men who have a lower sense of power in their relationships are

more likely to endorse attitudes reflecting hostile sexism (Cross & Overall, 2018), as

male domination may be perceived as a means of gaining control.

Men generally express a greater sense of power in heterosexual relationships

than women, for example through control of resources (Meyers-Levy & Loken,

2015). These gender differences are to be expected, as men's power and control over

women is observed across the world (Grose & Grabe, 2014; Ulibarri et al., 2015), and

other factors with consistent gender differences such as sexism and traditional gender

role ideology are also positively related to sense of power (Robnett & Leaper, 2013;

Glick & Fiske, 1996).

Relationship Longevity

I have now reviewed evidence that interdependence is associated with more

traditional gender role ideology in heterosexual relationships; but what are the

consequences of this traditionalism for relationship satisfaction, well-being and

ultimately, the longevity of the relationship itself?

Traditional gender role ideology has been associated with relationship

termination (Marshall, 2008), perhaps because people are more likely to break up

with a traditional partner if they feel they have lower power in the relationship, and in

turn, lower relationship satisfaction (Kifer, Heller, Perunovic & Galinsky, 2013).

Endorsement of benevolent sexism is also related to relationship termination, with

partners – especially women – more likely to report a willingness to break up with

less than ideal partners when faced with relationship problems (Hammond & Overall,

2014). The cultural context is important, however, and both of these studies were

conducted in Western cultures where traditional attitudes are generally lower; it could

be that incongruencies between the societal-level and individual-level attitudes have

caused tension in relationships, such as that observed in Chinese couples in Canada

whereby Canada's largely non-traditional climate might not be ideal for more

traditional Chinese couples (Marshall, 2008).

It is also possible that gender-related attitudes have an impact on entering a

new relationship. Parental influence on mate choice embodies the idea that finding a

partner, especially one your parents approve of, is an important part of life (Buunk et

al., 2010; Medora, 2007). Traditional gender role ideology also emphasises the

importance of starting a relationship with someone who embodies traditional roles

(Eastwick et al., 2006; Chen et al., 2009), and perhaps this means that individuals high in these attitudes will be more likely to seek relationships.

Wellbeing and Relationship Satisfaction. Relationships can have a strong positive impact on wellbeing (Holt-Lunstad et al., 2008), and vice versa. For example, Gustavson and colleagues' (2012) longitudinal study in Norway found clear links between marital problems at Time 1 and lower life satisfaction for both men and women 15 years later. This was especially true for participants who had not divorced during the duration of the study.

Findings on the association between gender role ideology and life satisfaction are mixed; on the one hand, increasing societal-level gender equality is associated with men's and women's increasing life satisfaction (Zuckerman et al., 2017), whilst on the other, individuals who do not adhere to traditional gender role ideology may experience lower life satisfaction (Matud et al., 2014). Sexism has also been linked to relationship satisfaction and how partners react to relationship problems. In a daily diary study, women's endorsement of benevolent sexism predicted a greater decline in relationship satisfaction when experiencing relationship problems, especially when they experienced hurtful partner behaviour such as criticism (Hammond & Overall, 2013).

Whilst much of the literature has examined the effects of relationship problems and marital breakdown on subjective wellbeing and relationship satisfaction, I posit that in the early stages of a relationship, wellbeing, and in particular relationship satisfaction, may have an impact on relationship outcomes, such that lower levels of wellbeing and relationship satisfaction will predict likelihood of relationship change (i.e. relationship breakdown when wellbeing and satisfaction are low). It is also expected that traditional gender-related attitudes, including

ideology and parental influence, will impact relationship outcomes, and that these impacts will be different for Western (with typically non-traditional gender role ideology and low parental influence) and non-Western (with typically traditional gender role ideology and higher parental influence) individuals.

Study 1

The present study examined cultural influences on gender role ideology and related attitudes in romantic relationships. The study focused on the early stages of relationships in an attempt to understand factors influencing mate choice and relationship longevity. It is split into two parts: the first, Study 1a, examined interdependence and attitudes at Time 1 only, and the second, Study 1b, examined the influences of these attitudes on relationship change between Time 1 and Time 2 (three months apart). By using a longitudinal, two time point, method, this study allows, with caution, for linear associations to be made between attitudes and outcomes, something that is not possible in cross-sectional research. The four countries of interest for this study are the UK, USA, India and Brazil. These countries have been selected as they allow for cultural comparisons across different dimensions than the North America/East Asia comparisons that have often dominated cross-cultural research (Barry & Beitel, 2006; Chen et al., 2009). Including both the UK and USA allowed for differentiation between two Western nations, and sampling from India and Brazil enabled comparisons between two non-Western countries which tend to differ in interdependence, parental influence on mate choice, and gender role traditionalism, with India tending to be the most traditional and the UK the least (Buunk et al., 2010; Chen et al., 2009; Glick et al., 2000). Brazil, in particular, is seldom included in cross-cultural psychology studies, and its inclusion here allows for an exploration of attitudes and whether they are similar to another non-Western

group. Other research has compared the UK and India (Hill & Marshall, 2018), countries that are ideal for the study of gender inequality as the UK represents a typically 'non-traditional' culture with lower gender inequality whilst India typically displays very traditional gender role ideology with higher gender inequality.

Hypotheses[5]

Study 1a:

1. Gender Differences:

> *H1. Across all four cultures there will be a gender difference in measures of gender role ideology in marriage, benevolent sexism, and sense of power, with men holding more traditional views and having a higher sense of power.*

2. Cultural Differences:

> *H2a. There will be cultural differences in gender role ideology in marriage, benevolent sexism, and parental influence on mate choice, with those from Western cultures (the UK and USA) expressing less traditional views than those from non-Western cultures (India and Brazil).*
>
> *H2b. Those from non-Western cultures will be higher in interdependence than those from Western cultures, and higher interdependence will predict more traditional parental influence on mate choice, higher levels of benevolent sexism, and a higher sense of power. These, in turn, will predict cultural differences in gender role ideology in marriage.*

Study 1b:

3. Attitudinal Stability:

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[5] All hypotheses for this study were pre-registered on the Open Science Framework: https://osf.io/q27sr/

H3. Attitudes – gender role ideology in marriage, parental influence on mate choice, benevolent sexism, and sense of power – will remain stable between Time 1 and Time 2.

4. Relationship Change:

H4a. More traditional gender role in marriage at Time 1 will affect relationship status at Time 2 differently for Western and non-Western cultures, with those in non-Western cultures more likely to remain in a relationship than those in Western cultures.

H4b. Non-Western individuals who are not in a relationship and are high in parental influence on mate choice at Time 1 will be more likely to have found a partner by Time 2 than those who are low in parental influence on mate choice.

5. Wellbeing and Satisfaction:

H5. Low levels of Relationship Satisfaction and Subjective Wellbeing at Time 1 will predict relationship change (i.e. entering a new relationship or breaking up from the current relationship) at Time 2.

Additional Research Questions

In addition to the above hypotheses, two exploratory research questions are proposed. First, is H2b moderated by gender (e.g., does sense of power affect male and female participants differently)? Second, is H5 moderated by culture (e.g., are relationship satisfaction and subjective wellbeing differentially associated with the likelihood of relationship change for participants from Western and non-Western cultures)?

Method

Participants

Study 1a. The proposed sample size for this part of the study was at least 95 participants per cell (culture), in order to achieve a small effect size with 80% power (Lakens & Evers, 2014). This sample size was also to allow for potential loss of participants between the first and second stages of the study (note: dropout rates were compared across cultures, using chi-squared analysis, in order to check for cultural variations in dropout rate, see Table 1.1) In total, 536 participants completed the questionnaire at Time 1; 42 participants were excluded because they did not meet pre-registered inclusion criteria: 21 because they were not from one of the four countries of interest, and 21 because they did not correctly answer at least three attention check questions (see section on Measures below). All of the remaining participants met the inclusion criteria of being either single or in the early stages of a new relationship (i.e., within the first four months, chosen because this is when relationships are most unstable, with the most change likely to occur) and completing the survey at a reasonable speed (within three standard deviations of the mean). Of the final 494 participants, 124 were from the United Kingdom, 151 were from the United States, 110 were from India, and 109 were from Brazil. Due to recruitment issues in Brazil, the majority of the Brazilian sample (64.2%) were living in the US. Whilst this is not ideal and recruitment of Brazilians living in Brazil would have been preferable, these participants completed the questionnaire in their native Brazilian Portuguese, as well as completing an acculturation scale, which found they had high levels of identification with their home culture, and therefore they are deemed to represent Brazilian culture more strongly than US culture. The mean age of all participants was

29.26 years (*SD* = 8.99). Table 1.1 shows demographic data including gender, ethnicity, and education for participants from the UK, USA, India and Brazil.

Study 1b. The same participants were invited to complete the second part of the study approximately three months after they completed Study 1a. One hundred and eighty-one participants provided data at both Time 1 and Time 2, with all of these participants correctly completing the attention check questions. Of the participants who completed Time 2, 40 were from the UK, 71 were from the USA, 48 were from India, and 22 were from Brazil. The mean age of participants in Time 2 was 30.71 (*SD* = 9.97); further demographic information is detailed in Table 1.1, including comparisons between the groups at Time 1 and Time 2, which revealed that the group at Time 2 was older than the group at Time 1 (no differences were observed in gender or education). As well as demographic comparisons between the groups at Time 1 and Time 2, comparisons were made between those who only completed the study at Time 1 only and those who completed the study at both Time 1 and Time 2, in terms of their demographic characteristics (i.e., age, gender, and education) and psychological characteristics, i.e. their responses to the seven measures below, finding no significant differences.

Materials

Participants from the UK, India and the US completed the following scales in English – a national language for these countries. A Brazilian Portuguese translation was administered to participants from Brazil. A bilingual speaker first translated the questionnaire into Brazilian Portuguese, and then another translated it back to English; the two English versions were then compared, and the Brazilian Portuguese version revised as necessary to obtain the closest match possible.

The same questionnaire was administered at both time points – first in early

2017 and then again three months later, in Spring/Summer 2017. There were no

differences between the questionnaires except that the second did not include

demographic questions, and instead asked additional questions about relationship

status change between Time 1 and Time 2.

Table 1.1 *Sample demographic variables, by culture*

	UK	USA	India	Brazil	Total
	n (%)	*n* (%)	*n* (%)	*n* (%)	*n* (%)
Time 1 (*n*=494)					
GENDER					
Female	94 (75.8)	59 (39.1)	27 (24.5)	31 (28.4)	211 (42.7)
Male	30 (24.2)	92 (60.9)	83 (75.5)	78 (71.6)	283 (57.3)
EDUCATION					
No degree	41 (33.1)	55 (36.4)	8 (7.3)	32 (29.4)	136 (27.5)
Degree	83 (66.9)	96 (63.6)	102 (92.7)	77 (70.6)	358 (72.5)
ETHNICITY					
Caucasian/White	85 (68.5)	109 (72.2)	-	44 (40.4)	238 (48.2)
Latino/Hispanic	1 (.8)	9 (6.0)	-	44 (40.4)	54 (10.9)
African/Caribbean	10 (8.1)	16 (10.6)	-	3 (2.8)	29 (5.9)
Asian	12 (9.7)	10 (6.6)	108 (98.2)	13 (11.9)	143 (28.9)
Other/Mixed	16 (12.9)	7 (4.6)	2 (1.8)	5 (4.6)	30 (6.1)
Time 2 (*n*=181)					
GENDER					
Female	30 (75)	27 (38)	15 (31.3)	1 (4.5)	73 (40.3)
Male	10 (25)	44 (62)	33 (68.8)	21 (95.5)	108 (59.7)
EDUCATION					
No degree	12 (30.0)	24 (33.8)	5 (10.4)	5 (22.7)	46 (25.4)
Degree	28 (70.0)	47 (66.2)	43 (89.6)	17 (77.3)	135 (74.6)
ETHNICITY					
Caucasian/White	28 (70.0)	57 (80.3)	-	8 (36.4)	93 (51.4)
Latino/Hispanic	1 (2.5)	3 (4.2)	-	12 (54.5)	16 (8.8)
African/Caribbean	5 (12.5)	5 (7.0)	-	-	10 (5.5)
Asian	1 (2.5)	5 (7.0)	47 (97.9)	-	53 (29.3)
Other/Mixed	5 (12.5)	1 (1.4)	1 (2.1)	2 (9.1)	9 (5.0)

Notes.

1. *'Asian' ethnic group includes South, East and Southeast Asian. 'Other/Mixed' ethnic group includes Aboriginal, Middle Eastern and Pacific Islander.*
2. *Comparisons between cultural group demographics revealed significant differences in age ($F_{(3,491)}$ = 7.88, p < .001), gender ($\chi2_{(3)}$ = 80.23, p < .001), and education ($\chi2_{(3)}$ = 30.70, p < .001). Demographic variables which differed between the groups were included as covariates in analyses where possible.*
3. *Comparisons between groups at Time 1 and Time 2 revealed significant differences in age ($t_{(322.63)}$ = 2.62, p = .009), but not gender, education or ethnicity.*

Measures

The following measures all used a 7-point Likert scale, ranging from 'strongly disagree' to 'strongly agree', unless specified differently below. An attention check item (e.g. '*for this item please choose 'Agree'*') was included in each scale (total six), and participants who failed three or more of these checks were excluded from analysis. Reliability data for all samples for each scale is available in Tables 1.3 and 1.7. Multi-group confirmatory factor analysis was also conducted on all scales to check for measurement invariance (see the Results section).

Gender Role Ideology in Marriage scale. Chen, Fiske and Lee's (2009) scale was used to assess participants' endorsement of traditional gender roles in the context of heterosexual relationships. The scale contains 15 items including '*a woman who does not do housework is not a responsible woman*', with higher scores indicating more traditional attitudes. Participants also completed Chen, Fiske and Lee's (2009) second measure of gender roles in marriage, rating the importance of 30 characteristics such as '*good appearance*' and '*intelligent*' in a potential partner.

Interdependence. The 12-item interdependence subscale of the Self-Construal scale (Singelis, 1994) was used to assess the cultural value of interdependence (example item: '*I will sacrifice my self-interest for the benefit of the group I am in*'), with higher scores indicating more interdependence.

Parental Influence on Mate Choice. This scale (Buunk, Park & Duncan, 2010)**,** was used to assess the influence participants' parents had over their relationship choices. It contains 10 items (e.g., '*children should always consult their parents in their choice of a partner*'), with higher scores indicating higher levels of parental influence.

Benevolent Sexism scale. The Benevolent Sexism subscale from the Ambivalent Sexism Inventory (Glick & Fiske, 1996) asks participants to rate their agreement with 11 items, including '*every man ought to have a woman whom he adores*', with higher scores indicating more endorsement of benevolent sexism.

Sense of Power scale (Anderson & Galinsky, 2006). This 8-item scale measures the power participants feel they have in their relationships (e.g., '*in my relationships with others I can get others to do what I want*'), with higher scores indicating a higher sense of power.

Relationship Satisfaction. Hendrick's (1988) scale contains 7 items assessing relationship quality. An example item is, '*How good is your relationship compared to most?*'. Participants who were in a relationship were asked to rate these items on a 7-point Likert scale from 'not at all/poor' to 'a great deal/extremely good', with higher scores indicating more relationship satisfaction.

Warwick Edinburgh Mental Wellbeing scale. The 7-item short-form (Tennant et al., 2007) was used to assess participants' subjective wellbeing over the previous two weeks (e.g., '*I have been dealing with problems well*'). Items were rated on a 7-point Likert scale from 'none of the time' to 'all of the time', with higher scores indicating higher wellbeing.

Covariates

In addition to the above measures, several additional variables were included, as outlined below, and used in analysis as covariates when group differences emerged. Past research suggests that conservative (right-leaning) political views, and higher levels of religiosity, tend to be related to more traditional attitudes (Diehl, Koenig & Ruckdeschel, 2009; Sibley & Duckitt, 2008). Demographic variables that

differed between cultural groups (age, gender and education; see Table 1.1) were also included as covariates.

Cultural Identification. For the Brazilian data collected via US MTurk, a scale was included to assess participants' identification with their home (Brazilian) and host (US) cultures. Demes and Geeraert's (2014) Brief Acculturation Orientation Scale was used, consisting of 8 items such as '*when in the USA it is important for me to have [Brazilian/US] friends*'. Reliability was good at both Time 1 and Time 2 for home (αs = .86 and .90) and host (αs = .74 and .89) identification.

Left-Right scale. A measure of left-right agreement (Evans, Heath & Lalljee, 1996) was used to indicate and control for left- and right-wing political leanings, where higher scores indicate more left-leaning views. Participants were asked to rate 5 items, such as '*ordinary working people do not get their fair share of the nation's wealth*'.

Religiosity. A single item, '*my whole approach to life is based on my religion*', from Gorsuch & McPherson's (1989) Intrinsic/Extrinsic Measurement, was used to measure and control for religiosity. The item was recommended by the authors of the scale as a stand-alone item that can be used to measure intrinsic religiosity, with higher scores representing higher religiosity. This item was only asked of participants who indicated that they had a religion in a previous question.

Procedure

TurkPrime (Litman, Robinson & Abberbock, 2016) was used to facilitate data collection through Amazon's Mechanical Turk (MTurk). Through MTurk participants were recruited from the US, India and Brazil, as well as a small number of participants from the UK (*n*=26). MTurk was also used to recruit Brazilian participants living in the US. Participants on MTurk were paid $1.00 for completing

the first questionnaire and an additional $1.00 for completing the second

questionnaire.

The majority of participants from the UK were recruited through social media

and a university participant pool. Participants from Brazil were initially recruited

through social media and Facebook adverts. However, this proved less successful than

expected and therefore data were collected from MTurk (n=105). Full ethical

approval was obtained through the College of Health and Life Sciences research

ethics committee prior to the start of data collection.

<div align="center">

Results

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Confirmatory Factor Analysis

Prior to hypothesis testing, multi-group confirmatory factor analysis (CFA)

was used to test the cross-cultural validity of the measures used and ensure that they

were appropriate. The type of measurement invariance tested for was configural

equivalence, such that the factor structure is roughly the same across groups. Where

necessary for item parcelling, metric equivalence in terms of factor loadings was

tested using exploratory factor analysis. Scalar equivalence was not measured as these

groups are expected to differ in their mean scores across scales. CFA was conducted

on all scales at Time 1 to varying levels of success. It was not conducted at Time 2 as

results at Time 1 suggest that the measures are cross-culturally valid. Test-retest

reliability was conducted across the scales, as shown in Table 1.2, indicating good

reliability across measures.

As shown in Table 1.2, both the Left-Right scale and the short-form of the

Warwick Edinburgh Mental Wellbeing scale were found to be completely invariant

across cultural groups, with CFA suggesting configural equivalence, i.e. the factor

structures did not vary between groups. For the remaining scales, items were assigned

to parcels using the factor analytic approach recommended by Russell, Kahn, Spoth, and Altmaeir (1998), with both high- and low-loading items assigned to each parcel to equally reflect the latent variable. Using this approach, the gender role ideology in marriage scale, the interdependence subscale of the self-construal scale, the parental influence on mate choice scale, the benevolent sexism subscale of the ambivalent sexism inventory, and the sense of power scale, were found to be invariant across groups. For the relationship satisfaction scale, partial invariance was accepted. Partial invariance is where most, but not all, of the items meet the assumptions for strong measurement invariance, and scales with only partial invariance are still better measures of constructs than those with weak or no invariance (Kline, 2011).

Table 1.2 *Summary of confirmatory factor analysis results, and test-retest reliability (r), by scale*

Scale	Test Statistic				
	χ^2	CFI	RMSEA [95% *CI*]	SRMR	*r*
Interdependence** (*n*=494)	$\chi^2(6) = 1.34, p = .970$	1.00	.00, [.00, .00]	.01	.84
Parental Influence on Mate Choice** (*n*=494)	$\chi^2(6) = 17.84, p = .007$	1.00	.06, [.03, .10]	.05	.88
Benevolent Sexism** (*n*=494)	$\chi^2(6) = 8.63, p = .196$	1.00	.03, [.00, .07]	.03	.88
Sense of Power** (*n*=494)	$\chi^2(6) = 1.34, p = .970$	1.00	.00, [.00, .00]	.01	.75
Gender Role Ideology in Marriage** (*n*=494)	$\chi^2(17) = 19.754, p = .287$	1.00	.02, [.00, .05]	.03	.86
Relationship Satisfaction*** (*n*=153)	$\chi^2(6) = 14.89, p = .021$	.94	.10, [.04, .17]	.13	.56
Wellbeing* (*n*=494)	$\chi^2(38) = 170.18, p < .001$	.95	.05, [.04, .06]	.05	.80
Left-Right* (*n*=494)	$\chi^2(20) = 35.24, p = .019$	.98	.04, [.02, .06]	.06	.79

Notes.
1. *denotes scales which were found to be completely invariant upon first testing, **denotes scales which were found to be invariant after item parcelling, ***denotes scales where partial invariance has been accepted*
2. *Pearson correlation coefficients were significant at the .001 level across all scales, suggesting good test-retest reliability. Whilst the relationship satisfaction scale has a coefficient below .7, the sample size for test-retest was small (n=43).*

Analytic Strategy

  Derived variables. A series of variables were derived for use in analysis for Study 1, alongside the scale means described above. Due to smaller sample sizes at Time 2, a dummy-coded variable was created for culture, combining groups and coding those from Western cultures (the UK and US) as 1 and those from non-Western cultures (India and Brazil) as 0. It should be noted here that differences have been observed between the two Western and two non-Western cultures; however, they are more similar to one another than they are to the other group and therefore combining them was deemed appropriate, especially given the smaller sample sizes in Study 1b. Two relationship change variables were also created: the first effect coded relationship status change as either no change (-1) or change (1); the second coded relationship status change into four groups (single=single, relationship=relationship, single=relationship, relationship=single).

Study 1a

  Mean scores for all scales at Time 1 are available in Table 1.3, split by gender and culture, rankings of the traits included in the gender role ideology in marriage measure are available in Table 1.4, and correlations between variables are available in Table 1.6. As seen in Table 1.4, the rankings of traits differ between cultures and genders, although the top-rated traits tend to be consistent across groups. Notably, '*attractive*' ranks more highly for male participants across cultures than for female participants, and '*has a good job*' ranks more highly for female participants than male. Cultural differences also emerge, notably '*has good job*' is rated in the Top 5 for Brazilian women and '*good homemaker*' is rated in the Top 5 for Brazilian men, whilst these traits are not in the Top 10 for other groups.

The first hypothesis, that there would be gender differences across measures, was not supported by the data. Although a MANOVA including just the main effect of gender suggested gender differences in benevolent sexism ($F(1, 492) = 18.64$, $p < .001$) and gender role ideology in marriage ($F(1, 492) = 33.87$, $p < .001$), once a gender by culture interaction and control variables were included in the design these gender effects were no longer observed[6]. No significant gender by culture interactions were observed in this second MANCOVA, suggesting no gender differences in gender role ideology in marriage, benevolent sexism, or sense of power in any cultural groups.

The second hypothesis (H2a), regarding cultural differences across measures, received full support from the data. A MANCOVA showed significant culture effects across all three scales: gender role ideology, ($F(3, 445) = 47.44$, $p < .001$), benevolent sexism, ($F(3, 445) = 21.05$, $p < .001$), and parental influence on mate choice, ($F(3, 445) = 57.12$, $p < .001$). A series of ANOVAs with Bonferroni corrected alphas of .017 broke down these differences, finding that all four cultures differed from each other. The pattern of mean scores (available in Table 1.3) across scales was the same, with Indian participants scoring most highly, followed by those from Brazil, then the US, and finally the UK. A structural equation model was used to test H2b[7], in an attempt to combine the variables tested in H2a into one model. Interdependence was included in the MANCOVA conducted to test H2 above, finding significant differences between cultures ($F(3, 445) = 20.23$, $p < .001$), with Indian participants

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[6] Post-hoc power analysis could be conducted here to determine whether this finding is likely to be repeated or whether it might be the result of a Type I error, but scholars (Lakens, 2014) have cautioned against the use of such analyses as they do not offer any additional information beyond p-values.

[7] In addition to the theorised model discussed here, some alternative models were tested to determine if there might be a better fit. More details about alternative models are included in the Appendix, however the theorised model excluding the Sense of Power variable and pathways (Model 2 in the Appendix: chosen because of the lack of significant indirect effects of Sense of Power) provided the best model fit ($\chi^2 (59) = 189.19$, $p < .001$, CFI = .98, RMSEA = .07 (95% CI = [.06, .08]), SRMR = .04), over and above the theorised model included here, $\chi^2 (35) = 137.04$, $p < .001$.

Table 1.3 *Means, standard deviations and reliabilities for all scales at Time 1, by culture and gender*

Scale	T1														
	UK			USA			India			Brazil			All		
	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
Interdependence	4.83	4.80	4.82	4.71	4.67	4.68	5.84	5.44	5.54	4.81	4.90	4.87	4.92	4.97	4.95
(*n*=494)	(.77)	(.61)	(.73)	(.87)	(1.00)	(.95)	(.81)	(.83)	(.84)	(.57)	(.88)	(.80)	(.85)	(.93)	(.90)
α		.72			.84			.87			.79			.83	
Parental Influence on Mate Choice	2.37	2.18	2.33	2.89	3.16	3.05	5.49	5.07	5.17	3.60	3.69	3.66	3.10	3.76	3.48
(*n*=494) α	(1.00)	(.85)	(.97)	(1.41)	(1.47)	(1.45)	(.71)	(.87)	(.85)	(1.28)	(1.63)	(1.53)	(1.52)	(1.61)	(1.61)
		.80			.90			.77			.92			.92	
Benevolent Sexism	3.30	3.70	3.40	3.66	3.74	3.71	5.56	5.16	5.25	4.08	4.41	4.31	3.81	4.34	4.11
(*n*=494)	(1.27)	(1.10)	(1.24)	(1.46)	(1.24)	(1.32)	(.67)	(.81)	(.79)	(1.40)	(1.25)	(1.29)	(1.47)	(1.26)	(1.38)
α		.86			.88			.80			.89			.90	
Sense of Power	4.62	4.60	4.61	4.42	4.65	4.56	4.70	4.44	4.50	4.35	4.44	4.42	4.54	4.52	4.53
(*n*=494)	(.93)	(.70)	(.88)	(1.31)	(1.03)	(1.15)	(.92)	(.84)	(.87)	(.92)	(.83)	(.85)	(1.05)	(.89)	(.96)
α		.83			.86			.66			.64			.76	
Gender Role Ideology in Marriage	2.26	2.27	2.26	2.75	3.16	3.00	4.85	4.49	4.58	3.65	3.78	3.74	2.93	3.63	3.33
(*n*=494) α	(.77)	(.70)	(.75)	(1.23)	(1.21)	(1.23)	(.92)	(.89)	(.91)	(1.22)	(1.28)	(1.26)	(1.33)	(1.30)	(1.36)
		.83			.93			.84			.93			.94	
Relationship Satisfaction	5.88	6.24	5.93	5.88	5.35	5.52	6.05	5.79	5.90	4.97	5.26	5.21	5.84	5.51	5.66
(*n*=153)	(.91)	(.43)	(.86)	(.60)	(1.23)	(1.09)	(.63)	(.53)	(.58)	(1.12)	(1.04)	(1.05)	(.84)	(.99)	(.94)
α		.87			.86			.69			.81			.84	
Wellbeing	4.32	4.17	4.28	4.48	4.60	4.56	5.56	5.25	5.32	5.27	4.85	4.97	4.66	4.82	4.75
(*n*=494)	(1.23)	(1.13)	(1.21)	(1.45)	(1.20)	(1.30)	(.87)	(.91)	(.90)	(.93)	(1.11)	(1.08)	(1.30)	(1.14)	(1.21)
α		.90			.91			.85			.88			.91	
Left-Right	5.00	5.41	5.10	4.83	4.88	4.87	5.68	5.27	5.37	5.03	4.84	4.89	5.04	5.04	5.04
(*n*=494)	(1.06)	(1.17)	(1.10)	(1.13)	(1.16)	(1.14)	(.75)	(.82)	(.82)	(.79)	(1.24)	(1.13)	(1.03)	(1.11)	(1.08)
α		.80			.79			.70			.79			.79	

Notes.

1. *For gender role ideology in marriage, Indian participants were the most traditional, followed by Brazilian participants and then US participants, with those from the UK reporting the least traditional gender role ideology. For benevolent sexism, Indian participants reported the highest levels of benevolent sexism, followed by Brazilian participants, and then the US and UK groups, between which there was no significant difference. Cultural differences were observed between each group for parental influence on mate choice with Indian participants reporting the most influence, followed by Brazilian participants, and then US and UK participants.*

Table 1.4. *Rank order of each trait, by country and gender*

Trait	Total			UK			US			India			Brazil		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Friend	1	1	2	2	2	2	2	1	2	1	1	3	1	1	6
Respect each other	2	2	1	1	1	1	1	2	1	6	7	2	2	2	9
Consideration	3	5	3	3	4	3	5	8	4	2	3	1	10	13	5
Sense of humour	4	4	4	4	3	4	4	3	5	5	4	7	20	19	19
Responsibility	5	3	6	8	6	9	3	4	3	4	5	4	3	3	4
Value equality	6	11	5	6	8	5	10	12	7	12	14	11	4	4	2
Appreciates communication	7	10	7	5	5	6	7	6	10	11	13	10	14	11	13
Intelligent	8	6	9	10	7	12	6	10	6	3	2	6	9	10	7
Gentleness	9	9	8	9	9	8	9	11	9	7	6	5	8	7	16
Has similar values	10	12	10	7	10	7	8	7	8	10	12	9	22	21	25
Independent	11	13	11	11	13	10	12	13	11	8	10	8	13	14	8
Well-educated	12	14	12	12	14	11	14	14	12	9	9	12	7	12	1
Good appearance	13	7	17	15	11	18	11	9	15	14	8	17	5	6	10
Attractive	14	8	21	18	12	22	13	5	21	13	11	13	12	8	21
Ambitious	15	16	14	13	16	13	17	17	19	19	19	21	16	17	14
High ability	16	15	19	17	19	17	16	16	17	15	15	16	17	20	12
Home orientation	17	19	16	16	17	15	20	18	20	20	20	20	18	18	20
Good provider	18	18	18	20	21	19	19	20	14	17	17	14	11	9	17
Protects me	19	21	13	14	18	14	21	26	18	18	18	15	15	15	11
Has similar hobbies or interests	20	17	20	19	15	21	15	15	16	16	16	18	27	26	29
Has good job	21	23	15	21	25	16	18	19	13	21	21	19	24	25	3
Good home maker	22	20	22	22	22	20	22	21	24	22	24	23	6	5	23
Enterprise	23	22	23	23	20	23	23	23	22	24	27	22	23	24	18
Holds traditional values	24	24	25	25	27	25	25	24	26	26	22	27	19	16	22
In control	25	25	26	26	24	26	26	25	25	25	23	25	21	22	15
High income, economic security	26	27	24	24	26	24	24	27	23	23	25	24	26	29	24
Thin	27	26	29	29	23	29	27	22	28	27	26	28	29	27	30
Love sports	28	28	28	27	28	28	28	28	29	28	28	26	28	28	28
Muscular	29	30	27	28	29	27	29	30	27	29	29	29	30	30	26

reporting significantly higher interdependence than those from Brazil, the UK, and the US. Brazilian participants were not significantly different to those from the UK or the US. A fully saturated (i.e. with all possible connections between latent variables) measurement model was first tested for all cultural groups and included covariances between mediators (parental influence on mate choice, benevolent sexism and sense of power). Results suggested a fair fit with the data, χ^2 (94) = 326.23, $p < .001$, CFI = .97, RMSEA = .07 (95% $CI = [.06, .08]$), SRMR = .07. The measurement model was then tested without covariance paths, in order to make the measurement model more parsimonious by removing covariances which did not significantly contribute to the model, and this model also suggested a partial fit with the data, χ^2 (97) = 518.68, $p < .001$, CFI = .94, RMSEA = .09 (95% $CI = [.09, .10]$), SRMR = .13. A chi-square difference test suggested that the model including covariance pathways provided a better fit to the data, χ^2 (3) = 186.37, $p < .001$, and therefore these covariances were included in all structural models. A fully-saturated structural model yielded the same indices of model fit (see Figure 1.2). Exploratory analysis attempted to determine whether the fully saturated model differed between genders, finding a good fit for both male (χ^2 (94) = 242.28, $p < .001$, CFI = .96, RMSEA = .08 (95% $CI = [.06, .09]$), SRMR = .08) and female (χ^2 (94) = 232.71, $p < .001$, CFI = .95, RMSEA = .08 (95% $CI = [.07, .10]$), SRMR = .07). A goodness of fit test suggested that the model fitted male participants better than female (χ^2 (1) = 9.57, $p = .002$).

To test for structural invariance of the model across cultures, two-by-two comparisons were run between a reference culture and each of the other three cultures in turn. The UK was chosen as the reference culture because it had the least traditional gender role ideology of the four groups (see Table 1.3). Results of these multi-group analyses suggested that there were broadly no cultural differences in

model structure between the UK, US, and Brazilian groups, with the exception of the pathway between parental influence and gender role ideology. Chi-square difference tests found significant differences between the UK and US groups, $\chi^2 (1) = 17.36$, $p <$ .001, and the UK and Brazilian groups, $\chi^2 (1) = 30.03$, $p < .001$. The path coefficient was stronger for both US participants ($\beta = .54$, $p < .001$) and Brazilian participants ($\beta = .62$, $p < .001$) compared to UK participants ($\beta = .23$, $p = .025$).
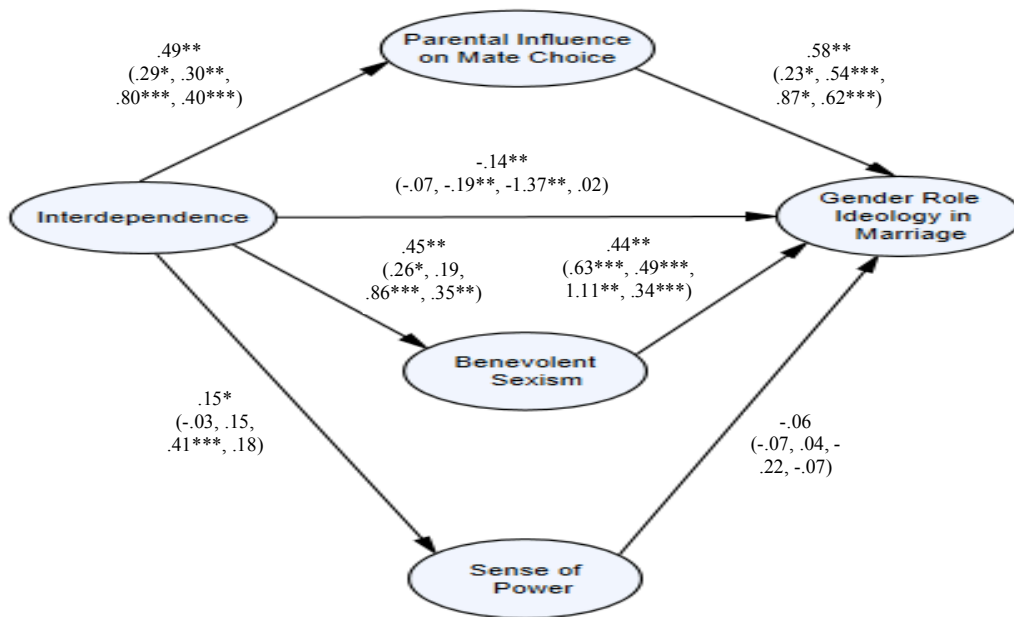
Figure 1.2 Standardised structural path coefficients for the sample, with cultural groups reported in brackets as follows: (UK, USA, India, Brazil). Covariance pathways between residual errors for mediators are included in the model but not displayed here, as well as item parcels feeding into each latent variable. $p < .05*$, $p < .01**$, $p < .001***$

To test the indirect effects of interdependence on gender role ideology in marriage through each of the three mediators, a bootstrap procedure based on 95% bias-corrected confidence intervals from 1,000 bootstrapped samples was used. The indirect effects were also tested for each cultural group separately. These indirect effects are reported in Table 1.5. Results revealed that the indirect effects of interdependence on gender role ideology through parental influence, benevolent sexism, and sense of power were significant for the whole sample. When examining

each group separately, however, none of the indirect effects were significant for the

Indian sample, nor for sense of power in any of the cultural groups.

Table 1.5 *Unstandardized indirect effects of interdependence on gender role ideology, through three mediators, by culture*

Mediator	Group				
	UK (*n*=124)	USA (*n*=151)	India (*n*=110)	Brazil (*n*=109)	Total (*n*=494)
Parental Influence on Mate Choice	*b* = .11, SE = .11 *p* = .045* [*CI*: .00, .50]	*b* = .26, SE = .12 *p* = .010** [*CI*: .06, .52]	*b* = .75, SE = 1.24 *p* = .110 [*CI*: -.54, 4.48]	*b* = .55, SE = .24 *p* = .011* [*CI*: .18, 1.14]	*b* = .58, SE = .09 *p* = .002** [*CI*: .43, .76]
Benevolent Sexism	*b* = .27, SE = .16 *p* = .028* [*CI*: .02, .68]	*b* = .15, SE = .10 *p* = .062 [*CI*: -.01, .41]	*b* = 1.03, SE = 1.45 *p* = .106 [*CI*: -.81, 4.17]	*b* = .27, SE = .11 *p* = .006** [*CI*: .09, .56]	*b* = .41, SE = .07 *p* = .002** [*CI*: .28, .54]
Sense of Power	*b* = .003, SE = .04 *p* = .676 [*CI*: -.05, .09]	*b* = .01, SE = .02 *p* = .357 [*CI*: -.01, .08]	*b* = -.10, SE - .30 *p* = .462 [*CI*: -.66, .55]	*b* = -.03, SE = .06 *p* = .218 [*CI*: -.28, .03]	*b* = -.02, SE = .01 *p* = .047* [*CI*: -.06, .00]

Notes.
1.   ** p < .05, ** p < .01, *** p < .001*

When comparing the Indian sample to the UK sample, structural differences

emerged on four out of seven pathways. The path coefficient between

interdependence and sense of power was stronger for Indian participants (β = .41, $p <$

.001) than for UK participants (β = -.03, p = .816), χ^2 (1) = 4.901, p = .027. The path

coefficient between benevolent sexism and gender role ideology was stronger for

Indian participants (β = 1.11, p = .002), than for UK participants (β = .63, $p < .001$), χ^2

(1) = 11.904, p = .0006. The path coefficient between parental influence and gender

role ideology was stronger for Indian participants (β = .87, p = .015) than for UK

participants (β = .23, p = .025), χ^2 (1) = 16.651, $p < .001$. The path coefficient

between interdependence and gender role ideology appeared stronger for Indian

participants (β = -1.37, p = .001) than for UK participants (β = -.07, p = .478),

however, this difference was not confirmed by a chi-square difference test, χ^2 (1) =

.406, p = .524.

Table 1.6. *Summary of intercorrelations for all scales, at Time 1 and Time 2*

	1.	2.	3.	4.	5.	6.	7.	8.
1. Interdependence	-	.41*	.39*	.13*	.28*	.53*	.38*	.33*
2. Parental Influence on Mate Choice	.49*	-	.63*	-.12*	.78*	-.11	.27*	.10*
3. Benevolent Sexism	.56*	.67*	-	.05	.71*	.09	.34*	.13*
4. Sense of Power	.16*	-.03	.16*	-	-.13*	.28*	.44*	.05
5. Gender Role Ideology in Marriage	.37*	.76*	.71*	.06	-	-.21*	.28*	.05
6. Relationship Satisfaction	.62*	-.11	.19	.35*	-.07	-	.45*	.38*
7. Wellbeing	.41*	.35*	.44*	.49*	.31*	.60*	-	.14*
8. Left-Right	.18*	-.01	.04	.12	-.04	.34*	.04	-

Notes.
1.   * *p* < .01
2.   Correlations for the Time 1 sample are presented above the diagonal, and correlations for the Time 2 sample are presented below.

Study 1b

The third hypothesis, which predicted attitudinal stability between Time 1 and Time 2, was supported by the data. T-tests, with Bonferroni corrected alphas of .013 revealed no significant difference in mean scores for gender role ideology in marriage ($t(180) = -.10$, $p = .922$), parental influence on mate choice ($t(180) = .47$, $p = .638$), benevolent sexism ($t(180) = .80$, $p = .426$), or sense of power ($t(180) = 1.82$, $p = .071$). Mean scores for all scales at both time points, by culture, are shown in Table 1.7. Exploratory analysis was conducted to determine whether attitudinal stability remained consistent across cultural groups. Paired samples t-tests within each cultural group, again with Bonferroni corrected alphas of .013, showed no significant differences between Time 1 and Time 2 mean scores for any of the scales (ps > .043).

Both parts of the fourth hypothesis were tested using multinomial regression[8]. Hypothesis 4a, regarding the effect of gender role ideology in marriage on

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[8] Analysis for hypothesis 2 differs from that proposed in preregistration documentation, due to the 4 possible outcomes in the DV making multinomial regression a more appropriate choice than hierarchical regression.

Table 1.7 *Means, standard deviations and reliabilities for all scales at Time 2, by culture and time*

Scale	T1					T2				
	Group					Group				
	UK	USA	India	Brazil	Total	UK	USA	India	Brazil	Total
Interdependence (*n*=181)	4.86	4.56	5.72	4.59	4.94	4.71	4.71	4.61	4.52	4.88
	(.69)	(.99)	(.68)	(.90)	(.97)	(.66)	(.66)	(.66)	(.73)	(.95)
α	.71	.86	.81	.78	.86	.70	.83	.81	.73	.85
Parental Influence on Mate Choice (*n*=181) α	2.16	2.98	5.18	3.34	3.43	2.18	2.92	5.17	3.66	3.38
	(.92)	(1.48)	(.89)	(1.70)	(1.68)	(1.00)	(1.40)	(.88)	(1.53)	(1.65)
	.82	.91	.80	.94	.94	.86	.90	.79	.93	.93
Benevolent Sexism (*n*=181) α	3.21	3.62	5.32	4.10	4.04	3.41	3.54	5.24	3.97	4.01
	(1.36)	(1.39)	(.73)	(1.29)	(1.46)	(1.34)	(1.38)	(.76)	(1.18)	(1.42)
	.88	.90	.75	.89	.91	.90	.91	.74	.88	.91
Sense of Power (*n*=181) α	4.72	4.48	4.69	4.55	4.60	.4.57	4.45	4.61	4.35	4.51
	(.92)	(1.25)	(1.03)	(1.29)	(1.09)	(1.13)	(1.22)	(.92)	(.86)	(1.08)
	.77	.91	.78	.83	.84	.86	.90	.80	.70	.84
Gender Role Ideology in Marriage (*n*=181) α	2.15	3.05	4.43	3.33	3.25	2.19	2.19	2.19	3.29	3.26
	(.68)	(1.32)	(.97)	(1.30)	(1.37)	(.74)	(.74)	(.74)	(1.30)	(1.31)
	.79	.94	.87	.94	.94	.82	.92	.83	.94	.94
Relationship Satisfaction (*n*=76) α	6.02	5.39	6.11	5.20	5.77	6.15	6.15	6.15	5.08	5.68
	(1.10)	(1.34)	(.56)	(1.27)	(1.08)	(.86)	(.86)	(.86)	(.79)	(.92)
	.91	.90	.67	.80	.87	.93	.86	.80	.59	.86
Wellbeing (*n*=181) α	4.26	4.48	5.37	4.88	4.71	4.40	4.40	4.40	4.88	4.84
	(1.17)	(1.38)	(.90)	(.96)	(1.24)	(1.35)	(1.35)	(1.35)	(.85)	(1.20)
	.90	.92	.85	.83	.91	.92	.91	.90	.83	.91
Left-Right (*n*=181) α	5.05	4.81	5.48	4.92	5.05	5.29	5.29	5.30	4.93	5.08
	(1.14)	(1.15)	(.73)	(1.04)	(1.07)	(1.11)	(1.11)	(.82)	(1.04)	(1.05)
	.81	.82	.61	.80	.80	.85	.81	.59	.81	.78

Notes:

1. *Means reported for Time 1 here are for the sample that completed the follow-up questionnaire at Time 2. Time 1 means for the whole sample are available in Table 1.3.*

relationship change, received partial support from the data. Using those who remained single as the reference group, multinomial regression showed significant effects of Time 1 gender role ideology in marriage on relationship status change, with more traditional attitudes related to higher likelihood of staying in a relationship ($\beta = .65$, $SE = .20$, $p = .001$), and higher likelihood of entering a new relationship, ($\beta = .51$, $SE = .22$, $p = .02$), but not with likelihood of breaking up ($\beta = .40$, $SE = .34$, $p = .238$).

Analysis using hierarchical regression found no differential effects between cultures of gender role ideology in marriage at Time 1 on relationship status change, prompting the use of a more appropriate statistical test.

Analysis also tested for an interaction effect between culture and gender role ideology in marriage, finding a significant effect in the group who entered into a new relationship (β = -.53, SE = .22, p = .02), with non-Westerners more likely to enter into a new relationship than Westerners.

Hypothesis 4b, that parental influence would have an effect on relationship change, received some support from the data. Again, using those who remained single as the reference group, there were significant effects of parental influence on mate choice at Time 1 on relationship status change, whereby those who were high in parental influence were more likely to stay in a relationship (β = .52, SE = .17, p = .002), or enter a new relationship (β = .36, SE = .18, p = .049), but not break up (β =.53, SE = .36, p = .14). Analysis also tested for an interaction effect between culture and parental influence on mate choice, finding no significant effects for those who remained in or entered a relationship. However, results suggest that Westerners who were higher in parental influence on mate choice were more likely to break up than were non-Westerners (β = .85, SE = .36, p = .02).

The fifth and final hypothesis, relating to the effect of wellbeing and satisfaction on relationship change, was not supported by the data. Two binary logistic regressions were conducted (separately for subjective wellbeing and relationship satisfaction in order to account for differing sample sizes as only those in a relationship at Time 1 completed the relationship satisfaction scale), though the results of these show no significant effects of either subjective wellbeing or relationship satisfaction on binary relationship status change. A PROCESS model (Hayes, 2017) was then used to test moderation by culture (Western or non-Western) on relationship satisfaction, wellbeing and relationship change. There was no significant moderation by culture on the relationship between relationship satisfaction

and relationship change, (b = .63, SE = .64, Z = .99, p = .321, CI [-.62, 1.88]), or

between wellbeing and relationship change (b = .44, SE = .31, Z = 1.41, p = .159, CI

[-.17, 1.05]). There were also no significant moderation effects of culture on the

relationship between relationship satisfaction and relationship status change (b = -.28,

SE = .73, Z = -.38, p = .707, CI [-1.71, .1.15]), or wellbeing and relationship status

change (b = .04, SE = .16, Z = .26, p = .794, CI [-.28, .37]).

Exploratory analysis was undertaken to see if there was any moderating effect

of culture on the association between relationship satisfaction and subjective

wellbeing, and relationship change. The binary logistic regressions described above

were conducted again on the dataset split by cultural group, but again no significant

effects of either relationship satisfaction or subjective wellbeing were observed.

In order to further explore the associations between these variables, further

exploratory analysis was conducted using the relationship change variable with four

groups, although the results of this must be considered with caution due to the low

sample sizes. An ANOVA was conducted looking at the association between this

derived variable from Time 2 and relationship satisfaction and subjective wellbeing as

at Time 1. A significant interaction was uncovered between subjective wellbeing (but

not relationship satisfaction) and relationship change (F(3, 177) = 1.48, p = .019).

Multiple comparisons revealed that those who remained in a relationship experienced

marginally higher subjective wellbeing than those who were single at both Time 1 and

Time 2.

Discussion

The present study examined a number of factors related to gender inequality in

the early stages of relationships, across cultures and at two time points. Cultural

differences were found between two Western (the UK and the US) and two non-

Western (India and Brazil) countries on a number of variables measured: gender role ideology in marriage, parental influence on mate choice, and benevolent sexism. These variables were also combined into one model which received support in all four countries. In the second part of the study attitudinal stability was observed across cultures, as well as associations between both gender role ideology in marriage and parental influence on mate choice, on relationship status change.

These findings offer support to past research findings of cultural differences in variables related to gender (Buunk et al., 2010; Chen et al., 2009; Glick et al., 2000) and build upon these studies by linking them together in one model, as well as observing their longitudinal impact on relationships. This study failed to replicate previous results finding gender differences in these factors (Boehnke, 2011; Glick et al., 2000; Meyers-Levy & Loken, 2015), suggesting perhaps that cultural influence may play a stronger role in traditional attitudes than gender.

Study 1a

The first part of the study offers support to previous literature which has found cultural differences in gender role ideology in marriage (Chen et al., 2009), interdependence (Markus & Kitayama, 1991), benevolent sexism (Glick et al., 2000), and parental influence on mate choice (Buunk et al., 2010). The non-Western groups were found to be consistently more traditional than the Western groups, a pattern which was predicted, although the lack of past research looking at Brazilian participants meant that the precise position of this group could not be anticipated. It was expected, however, that Brazilian participants would be more traditional than those from the US and the UK, and this was observed.

This study then attempted to combine these variables into one model in order to test the relationships between them. Results suggest that interdependence is related

to gender role ideology in marriage, through parental influence on mate choice, benevolent sexism and sense of power. The pathways in the model were stronger for the Indian group than the other three, suggesting that the model may function differently for this group. Indian participants differed from those from all other groups in their higher levels of interdependence, which could account for this difference. It is possible that another cultural indicator, for example lower levels of independence (Markus & Kitayama, 1992) might influence the associations between variables for the Indian group. Another factor which must be considered is that the model might be structured differently to the one tested here, as evidenced by the increased model fit for the alternative model excluding sense of power. Further research could be conducted to explore other alternative models, especially as the mediators are all correlated with one another.

This study failed to find gender differences, once cultural differences were accounted for, across any of the measures. This finding is unexpected as past research has consistently found gender differences in gender role ideology (Olson et al., 2007), sexism (Zawisza et al., 2015) and sense of power (Meyers-Levy & Loken, 2015). It is worth noting, however, that in Glick et al.'s (2000) cross-cultural study of hostile and benevolent sexism they failed to observe consistent gender differences in benevolent sexism, with women in some cultures reporting higher levels of benevolent sexism than men. Perhaps the lack of gender differences observed here in gender role ideology and sense of power reflect an ongoing cultural shift towards more egalitarian attitudes (Bolzendahl & Myers, 2004), with the attitudes of men and women converging.

Study 1b

By including a longitudinal element, this study has enabled the exploration of the potential impact of gender-related attitudes on relationship longevity in the early stages. First, attitudes were found to be stable between Time 1 and Time 2, which supports past research as well as enabling researchers to be confident that reported attitudes offer an accurate picture of actual views (as it would be difficult to fabricate attitudes in the same manner twice).

Next, gender role ideology in marriage appears to differentially affect relationship status change for Western and non-Western cultures, with traditional ideology related to the likelihood of staying in or entering a relationship but not breaking up, and non-Westerners more likely to enter into a new relationship than Westerners. This pattern of results suggests a possible effect of more traditional gender roles, which tend to endorse the importance of romantic relationships (Kaufman, 2000), on desire to remain in or enter into a relationship.

Similarly, high levels of parental influence on mate choice were related to the likelihood of staying in or entering a new relationship, but not breaking up, a finding which was expected given that parental influence on mate choice, like traditional gender role ideology, tends to place importance on being in a relationship. One unexpected finding here, however, is that Westerners who were high in parental influence were more likely to break up than were non-Westerners. It is possible that being a Westerner who is high in parental influence is at odds with other Western cultural values (a situation observed with traditional gender role ideology in Chinese Canadians; Marshall, 2008), placing pressure on relationships and making them more likely to break up, e.g. if an individual feels they may be able to find another partner who more closely fits their parents' ideals. It is also possible that this finding is due to

the fact that non-Westerners are less likely to break up than Westerners in general (Yodanis, 2005), and due to the smaller sample sizes in this part of the study (only 60 participants experienced relationship change), statistical power is affected.

No effects of relationship satisfaction or subjective wellbeing on relationship change were observed, which is surprising as it was expected that lower relationship satisfaction would prompt breakups between Time 1 and Time 2. It is possible, as noted above, that the smaller sample size of participants who had experienced a relationship change means that there was not enough statistical power to detect an effect here, or that the three months between questionnaires was not sufficient for relationship change. Some exploratory analysis does provide some evidence of small effects of subjective wellbeing on relationship change, with participants who remained in a relationship reporting higher wellbeing at Time 1 than those who were single at both Time 1 and Time 2. This finding lends support to past research finding a protective effect of relationships, and marriages in particular, on wellbeing (Kim & McKenry, 2002), but due to the small sample size it should be considered with caution before further confirmatory research can be undertaken.

Limitations and Further Research Directions

One major strength of the current study is that it used a longitudinal design to explore relationship change and attitudinal stability across time. This design enables researchers to more easily establish cause and effect relationships between variables, although it is appreciated that much of the analysis here is still correlational. The study was also pre-registered on the Open Science Framework (https://osf.io/q27sr/).

A limitation of this study, however, is that the recruitment methods varied by culture, which could introduce bias to the sample. For example, UK participants were often university students and therefore younger than other groups, although age was

included as a control variable. In future research this could be overcome by using the same recruitment method across cultures. There was also difficulty in recruiting Brazilian participants, and whilst this issue was resolved by recruiting Brazilian migrants living in the US (who completed the survey in Brazilian Portuguese and also completed an acculturation scale), in future it would be advisable to have a clearer idea of how recruitment was going to work. Another limitation also relates to the recruitment of participants: the attrition rate between Time 1 and Time 2 was much higher than anticipated, resulting in a smaller sample size for Study 1b, and therefore lower statistical power, than desired. This limitation should be overcome in future research by sampling a larger number of participants at Time 1.

Further research should aim to overcome these limitations, by using more consistent recruitment methods and taking difficulties with attrition into consideration. It should also aim to answer some of the questions left open by this study, for example by recruiting more participants who experienced relationship change over time in order to examine the impact of gender-related attitudes, satisfaction and wellbeing with higher statistical power. A second unanswered question relates to the Indian sample and its lack of convergence with the other three cultural groups in the model. What is it about this group that functions differently? Is it related to gender role ideology, or a cultural measure other than interdependence? Collecting data from other cultures which are typically high in interdependence, for example China (Markus & Kitayama, 1991), could help to explore whether the model functions similarly for other high interdependence cultures.

Practical Implications

Alongside the theoretical contributions of this study, these findings also have practical implications. They show clear associations across cultures between parental

influence on mate choice, benevolent sexism, and gender role ideology in marriage. As other research has associated traditional gender role ideology in marriage with poorer outcomes such as wellbeing and satisfaction (Sanchez et al., 2012), it could be reasoned that these factors should be taken into consideration together when designing intervention programmes aimed at promoting gender equality. By using cultural comparisons, we are able to see the relationship between both high and low levels of, for example, parental influence on mate choice on traditional and less traditional gender role ideology, and this in turn allows us to see the potential impact that decreasing levels of traditional gender role ideology could have in traditional countries such as India.

Conclusion

The present study aimed to explore the relationships between a number of different factors related to gender inequality in the early stages of romantic relationships. Cultural differences were identified across a range of variables including parental influence on mate choice, gender role ideology in marriage and benevolent sexism; however, no gender differences were observed. It is also the first, to my knowledge, to combine these factors into one structural equation model.

Much research has been conducted on gender inequality across the Western world, and this study aimed to further this research in a cross-cultural context. By comparing Western and non-Western cultural groups, this study has clarified the mechanisms through which interdependence predicts traditional gender role ideology, and, in turn, relationship longevity, which is a useful step in beginning to identify potential interventions to improve relationship quality and decrease overall gender inequality worldwide.

Study 2: Unequal Gender Roles in the Home: Links Between Gender Role Ideology, Share of Household Tasks and Life Outcomes Across Cultures

What can cultural differences in beliefs about gender role ideology and share of domestic tasks tell us about how gender (in)equality functions in romantic relationships? Study 1 identified some antecedents (parental influence on mate choice and benevolent sexism) of traditional gender role ideology, as well as finding that those with traditional gender role ideology were more likely to stay in a relationship than those with less traditional gender role ideology. Does this difference have something to do with the way in which household tasks are shared between partners? Within heterosexual romantic relationships traditional gender roles are often adhered to, even when individual attitudes are less traditional (Greenstein, 1996b), with women undertaking the majority of childcare and housework whilst men work elsewhere (Lachance-Grzela & Bouchard, 2010). Women consistently do more tasks at home than men across countries, though the extent of the difference varies between countries: for example, the gap between men's and women's daily housework time in the UK was 74 minutes in 2005, and 183 minutes in 2008 in Italy (Altintas & Sullivan, 2016).

The current study analysed data from the International Social Survey Programme (ISSP)'s 2012 module 'Family and Changing Gender Roles' (ISSP Research Group, 2014), and aimed to answer three main questions. First, does individual-level gender role ideology predict expectations around the share of household tasks (childcare and housework), and does this, in turn, predict the actual division of labour within a partnership? Second, does country-level gender inequality predict individuals' expectations and actual share of labour? And last, what potential impact might discrepancies between the expectation of and actual division of labour

have on individuals' important life outcomes, such as wellbeing and subjective

health? By analysing data from countries that vary widely in gender inequality and

gender role ideologies (Oun, 2013; Stickney & Konrad, 2007; United Nations, 2018),

the present study assessed whether relationships between gender inequality, share of

household tasks, and life outcomes are similar across cultures.

Gender Inequality and Gender Role Ideology

The domestic sphere is ideal for the study of how traditional gender roles play

out in relationships, as many household tasks require division of labour, and these are

often divided along gender lines (Lachance-Grzela & Bouchard, 2010), with women

consistently doing more (Batalova & Cohen, 2002; Cunha, André, Aparício, Santos &

Nunes, 2016). Notably, individuals' traditional gender role ideology is related to more

traditional divisions (i.e., the female partner doing the majority) of childcare

(Evertsson, 2014; Gaunt, 2006) and housework (Evertsson, 2014; Kan & Laurie,

2016; Nitsche & Grunow, 2016). Country-level inequality is also related to the share

of household tasks, with men and women doing a more, though often still not entirely,

equitable share of childcare and housework in more equal societies (Fuwa, 2004;

Knudsen & Wærness, 2007).

Childcare Share

One task that is frequently divided along gender lines is the share of childcare.

This divide is historically rooted in human biology; women's physical parental

investment in childrearing is greater than men's as they spend nine months pregnant

and then often breastfeed the child (Trivers, 1972). Although many women across the

world, and in the West in particular, now work outside the home before and after

having children, negative attitudes have been observed toward parents who defy

traditional roles (Brescoll & Uhlmann, 2005; Scott et al., 1996) despite attitudes

toward women in general tending to liberalise (Bolzendahl & Myers, 2004; Boehnke, 2011). Female workforce participation is not always related to less traditional attitudes. For example, although there is a higher level of female workforce participation in Taiwan than in Japan and South Korea, attitudes surrounding gender roles in the home (as opposed to the workplace) remain traditional across all three cultures (Takeuchi & Tsutsui, 2016). These findings suggest that individual attitudes favour a traditional gender division when it comes to raising children even when there are higher levels of equality at the country-level.

Parental leave allowances across cultures vary dramatically and, even when paternal leave is an option, employers tend to afford longer lengths of leave to mothers (Karu & Tremblay, 2018; OECD, 2017). Despite evidence that individual-level attitudes remain traditional in the face of increasing country-level equality, other evidence suggests that the relationship between individual-level and country-level gender role ideology are more consistent. In countries with more equal leave policies (i.e., the possibility for both parents to take equal amounts of leave), people report less traditional gender role ideology (Sjöberg, 2004). The direction of this association is unknown, however; for example, societal policies might influence individuals' attitude change, or the changing attitudes of individuals might drive policy change. These policies can have a direct impact on the amount of parental leave taken and subsequent childcare done by mothers and fathers, as observed in Norway (Hart, Anderson & Drange, 2019).

Gender role ideology has consistently been found to be related to the gendered division of childcare, with studies finding that less traditional beliefs about the role of fathers are related to both increased participation in childcare by fathers and decreased childcare hours by mothers (Gaunt, 2006). Alongside ideology, structural

variables such as hours worked by mothers and fathers are also important predictors of paternal childcare responsibility: as mothers work more hours, paternal childcare increased, whilst as fathers work more hours, paternal childcare decreased (Jacobs & Kelley, 2006).

Whilst many studies have assessed the association between gender role ideology and subsequent division of childcare (Gaunt, 2006; Evertsson, 2014), few have unpacked the underlying mechanism for this association. A study of young adults without children found that, although men generally expected to partake in an even share of household work, women tended to expect that they would still do more than they wanted to do, reflecting an uneven expectation of the division of labour within a relationship (Askari, Liss, Erchull, Staebell & Axelson, 2010). In the present study, I explored whether the association between traditional gender role ideology and actual share of childcare is mediated by expectations of the amount of childcare one anticipates doing. For example, women with more traditional gender role ideology may do a larger actual share of childcare than their male partner because they expect to be doing more than him.

Household Task Share

Alongside childcare, there are other tasks in the home that are often separated by gender. These other household tasks, or housework, generally include buying and cooking food, cleaning, and doing laundry. Historically, these tasks have been completed by women in their role as a homemaker (Lachance-Grzela & Bouchard, 2010), but as women increasingly join the workforce and take on responsibilities outside of the home, has a shift in the division of labour occurred?

Kan and Laurie (2016) analysed data on housework share and gender role ideology from British couples from many different cultures including first, second

and third generation immigrants. They found that in general women did more housework than men across groups, and that women with traditional gender role ideology did a particularly large amount of housework. These associations have also been observed longitudinally in Germany, with more traditional gender role ideology associated with more traditional division of housework over the course of a relationship (Nitsche & Grunow, 2016), and in Sweden, where men with less traditional gender role ideology tend to do more housework (Evertsson, 2014).

As with childcare share, whether the association between traditional gender role ideology and share of housework (Kan & Laurie, 2016) is mediated by the expectation of task share has not, to my knowledge, been empirically tested before. The expectations each partner has about the way housework is divided are an important predictor of actual housework performance: male partners' expectations tend to be a stronger predictor than female partners', suggesting a male power in household role allocation (Hiller & Philliber, 1986). Testing these associations can contribute to theory surrounding gender role ideology and its consequences, including whether variation in ideology and expectations of task share might impact the actual division of labour, and in turn, life outcomes such as wellbeing (van de Vijver, 2007).

Life Outcomes

Domestic and relationship strife can have a negative impact on life outcomes such as subjective wellbeing and subjective health (that is, an individual's estimate of their own health rather than an objective measure such as heart rate or body mass index). For example, relationship problems are related to reductions in life satisfaction over time (Gustavson et al., 2012), whilst being married has a protective effect on wellbeing across cultures (Diener et al., 2000; Kim & McKenry, 2002), but only for individuals in high-quality marriages (Holt-Lunstad et al., 2008).

One cause of relationship conflict could be the share of household tasks, especially in societies where women are increasingly joining the workforce and therefore taking on more tasks, and varied tasks both inside and outside the home. Whilst men who juggle multiple roles including work, parental, and housework tasks tend to have positive self-evaluations, their female counterparts tend to have negative self-evaluations, in part because they feel that employment prevents them from adequately fulfilling their role in the home (Simon, 1995), which may in turn increase women's psychological distress (Bird, 1999). Women in Sweden who reported performing more housework than their partners were less likely to be satisfied with their relationships, more likely to consider breaking up, and that these relationships were subsequently more likely to dissolve (Ruppanner, Brandén & Turunen, 2018), and men's participation in childcare in the US is related to increases in satisfaction for both men and women (Carlson, McLanahan & England, 2004). Similarly, research by Norman, Elliot and Fagan (2018) found that father's childcare was related to increased relationship stability, although their contribution to housework had no effect.

Other research has found that, in countries with policies relating to the promotion of gender equality (e.g. support for dual-earner families), such as Sweden, both men and women are more sensitive to unfairness in the division of household labour (Oun, 2013). Gender role ideology is also related to perceptions of fairness, with egalitarian wives more likely to perceive inequalities in the division of housework as unfair than traditional wives (Greenstein, 1996a). Perceived unfairness is also related to subsequent belief in the quality of the marital relationship, perhaps because perceiving division of housework as unfair might reflect perceptions of the relationship as of lower quality (Greenstein, 1996a).

But what about the impact of an uneven division of labour on wellbeing and health? Sharing household work has been found to be positively related to wellbeing, and this, in turn, has a positive effect on mental health and partner relationships (van de Vijver, 2007). This is supported by Bird (1999), who suggests that it is inequity in the division of housework, rather than amount of housework itself, that increases psychological distress, and Schieman, Ruppanner and Milkie (2018) who found that parenting inequalities have a negative effect on mothers' assessment of their relationship quality, especially if they also work part-time, which could in turn have a negative consequence for both men and women if these lower quality relationships breakup. Past research using the International Social Survey Programme has found that higher household work hours, combined with higher paid work hours, result in worse self-reported health for women (data for men were not analysed in this study) (Thomas et al., 2018). Although Thomas and colleagues' (2018) study used a multi-national dataset, it did not test for between-country differences, which, given other findings that housework and reported health both vary across cultures (Kan & Laurie, 2016; Ottova-Jordan et al., 2015), seem likely. Their study also found that perceived unfairness in the division of labour was related to poorer health outcomes but did not consider the number of hours of housework the participants and their spouses were completing. Thus, we are unable to tell whether their share of housework was actually uneven or not. Study 2 aimed to build upon Thomas and colleagues' (2018) findings by analysing data between countries as well as including spousal share of housework. It would be expected that there are differences in the expectations of and actual amount of housework and childcare tasks in different countries, especially when taking into account the gender equality of a country, and this may impact individuals' wellbeing and subjective health. For example, women who prefer to do less childcare

but end up doing more may report lower well-being and subjective health, particularly in gender-equal countries where men are expected to contribute more to childcare. Such women might feel under-benefited in their relationships, which is associated with lower relationship quality and increased distress compared to feeling over-benefited or equal (Sprecher, 2018).

Study 2

This study analysed ISSP data from the 2012 module 'Family and Changing Gender Roles' (ISSP Research Group, 2014) to further our understanding of the links between gender role ideology and share of tasks within the home, and how this may differ across cultures. Does traditional gender role ideology mean women expect to do more childcare and housework than men? How does this relate to the actual share of childcare and housework within a family, and what impact might discrepancies between expected and actual shares have on an individual's health and wellbeing? Whilst the existing literature has established an association between traditional gender role ideology and actual share of household tasks, this study hopes to offer a unique insight into a potential mediating factor by assessing the impact of expectations of division of household labour.

In addition to assessing the impact of individual-level gender role ideology, the present study will use a country-level indicator of gender inequality (the Gender Inequality Index, United Nations, 2018) to explore whether those in less equal cultures report more traditional task share and expectations of task share. Country-level factors such as differing family leave policies might have an effect on the division of tasks (Sjöberg, 2004), and therefore it is important to consider national gender inequality alongside individual-level gender role ideology.

Hypotheses[9]

Childcare Share

H1a: *people living in countries with higher levels of gender inequality and those with more traditional gender role ideology will expect a more traditional division of childcare (i.e. primarily mother's responsibility), which in turn will result in their uneven actual share of childcare.*

H1b: *discrepancies between expected division of childcare and actual share of childcare will result in lower reported wellbeing and subjective health, particularly in countries with higher gender equality scores.*

Share of Housework

H2a: *people in countries with higher levels of gender inequality and those with more traditional gender role ideology will expect a more traditional housework share (i.e. primarily female responsibility) which in turn will result in uneven actual share of housework.*

H2b: *discrepancies between expected and actual share of housework will result in lower reported wellbeing and subjective health, particularly in countries with higher gender equality scores.*

Additional Analyses. In addition to the hypotheses outlined above, some analyses were conducted on an exploratory basis. First, H1b and H2b, regarding the impact of task share discrepancy on wellbeing and subjective health, were analysed by gender to determine whether there are differential effects for men and women. Second, I analysed power over decision making within the family intending to explore whether or not there are gender and/or cultural differences in attribution of power. The motivation for this second exploratory analysis is the lack of gender differences

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[9] All hypotheses for this study were pre-registered on the Open Science Framework: https://osf.io/8d2qy/

in sense of power reported by individuals in heterosexual relationships observed across cultures in Study 1: although past research suggests that men generally express a greater sense of power in relationships for example through control of resources (Meyers-Levy & Loken, 2015), I failed to find a gender difference in sense of power across four cultural groups. It is possible that individual power (measured by Hiller & Philliber (1986) as the impact individual expectations have over couples' gender role performance, e.g. the degree to which the male partner's expectation that his wife will do the majority of housework translates into her actually doing the majority) may also be associated with expectations of household work such that husbands' expectations are powerful predictors of actual performance (Hiller & Philliber, 1986). By testing for gender and cultural differences in power in this dataset, I hoped to either confirm or refute the previous finding of no differences with a larger sample of countries.

Method

Data and Procedure

Data for the study were taken from the ISSP 2012 module 'Family and Changing Gender Roles', which asked participants from over 40 countries around the world questions about their attitudes toward gender roles, marriage and family life, including shared division of household labour and childcare. Research organisations in each of the participating countries recruited participants using a range of different sampling techniques, including simple and stratified sampling. These organisations then collected data between 2012 and 2015 via face-to-face interviews and/or self-completion surveys, and these were then collated and published by the ISSP (ISSP Research Group, 2014). More information about the programme and its methodologies, as well as datasets, can be found on the website: http://www.issp.org/.

Participants

In total 61,754 participants from 41 different countries completed the ISSP 2012 questionnaire. Four countries, Iceland, the Philippines, Taiwan and South Africa, were excluded from the present analysis due to a lack of country-level data, and a fifth, Spain, was excluded due to different scoring systems used. Of the remaining participants, 29,392 reported that they were married and were therefore included in the present analysis. Individual country sample sizes ranged from 230 (Venezuela) to 4,713 (China), with a mean sample size of 816.44 ($SD = 706.66$). Table 2.1 details demographic information for the sample, including details of the 36 countries included in analysis.

Materials

The complete questionnaire is available on the ISSP website (http://www.issp.org/), and the specific questions used in this study are discussed in more detail below.

Measures

Attitudes toward Family and Gender Roles. Attitudes toward working mothers and working women were assessed using five items, for example '*All in all, family life suffers when the woman has a full-time job*', each scored on scale from 1 ('strongly agree') to 5 ('strongly disagree'), where stronger agreement indicated more traditional gender roles. Data were recoded such that higher scores indicated more traditional attitudes, and one item was reverse-coded. Cronbach's alpha revealed good reliability for the items, $\alpha = .68$.

Expected and Actual Division of Childcare. Responses to the item '*Consider a family with a child under school age. What, in your opinion, is the best way for them to organise their family and work life?*' were used to assess expected

share of childcare. Answer options ranged from 'the mother stays home and the father works full-time' to 'the father stays home and the mother works full-time'. Responses to the items '*On average, how many hours a week do you spend looking after family members (e.g. children, elderly, ill or disabled family members)?*' and '*And on average, how many hours a week does he/she [their spouse/partner] spend looking after family members (e.g. children, elderly, ill or disabled family members)?*' were used to create an 'actual share of childcare' variable, denoting the percentage share of childcare undertaken by the female partner (computed as number of hours worked by female partner divided by number of hours worked by both female partner and male partner). Although these questions include care for other family members, only households with children were included in analysis for this hypothesis, hopefully mitigating some of this effect.

Expected and Actual Division of Housework. Responses to the item '*A man's job is to earn money; a woman's job is to look after the home and family*' were used as a proxy for expected share of household work, with 'agree' responses taken to mean that household work was deemed to be the woman's responsibility, and 'disagree' responses taken to mean that household work should be a shared responsibility. Whilst a more explicit measure of expectation of household work, like that used above for childcare, would have been preferable, and this item is closely related to other measures of gender role ideology, it has been deemed a suitable proxy for expectation as agreement suggests a belief that household work is the woman's domain. Responses to the items '*On average, how many hours a week do you personally spend on household work, not including childcare and leisure time activities?*' and '*And what about your spouse/partner? On average, how many hours a week does he/she spend on household work, not including childcare and leisure*

time activities?' were used to create an 'actual share of household work' variable, denoting the percentage share of housework done by the female partner (computed as number of hours worked by female partner divided by number of hours worked by both female and male partner).

Power and Decision-making within Partnership. Two items were used to measure relative power within relationships. The first, '*When you and your spouse/partner make decisions about choosing shared weekend activities, who has the final say?'*, relates to all couples, and the second, '*Who usually makes/made the decisions about how to bring up your children?'*, to those with children. Responses were recoded in line with other variables so that responses regarding even share of power were in the middle, and more traditional responses (i.e. that the male partner has the power) were higher. The original values were as follows: 1) Mostly me 2) Mostly my partner 3) Sometimes me, sometimes my partner 4) We decide together. A new variable was created with the following values: 1) Mostly woman 2) Equal/Shared (combining 3 and 4) 3) mostly man.

Subjective Wellbeing. Two items measure subjective wellbeing. These are '*If you were to consider your life in general, how happy or unhappy would you say you are, on the whole?'*, which measures general life satisfaction, and '*All things considered, how satisfied are you with your family life?'* which measure satisfaction in the home. All items were rated on a scale from 1 'completely happy' to 7 'completely unhappy'. A mean subjective wellbeing score was computed. Cronbach's alpha revealed good reliability for the items, $\alpha = .78$.

Subjective Health. Subjective health was measured using the item '*In general, would you say your health is… excellent/very good/good/fair/poor'*, rated from 1 to 5.

Demographic variables. In addition to the above, the ISSP asked questions about participants' age, education, occupation and religion. These variables were compared between countries and included as covariates when differences were observed.

Country-Level Data

Country-level data were downloaded for 2012, as this was the year the first data were collected for this ISSP module, from the United Nations Development Programme (Gender Inequality Index[10]), the World Bank (Gross Domestic Product) and Hofstede (Individualism). Rankings for country-level data are available in Table 2.2. The Gender Inequality Index (United Nations, 2018) is a composite measure of country-level gender equality, made up of three basic dimensions: reproductive health (including maternal mortality and adolescent birth rates), empowerment (proportion of parliamentary seats occupied by females and proportion of adults with at least some secondary education), and economic status (female labour market participation). Gross Domestic Product (The World Bank, 2018) is a monetary measure of the market value of goods and services produced within a period of time. Individualism (Hofstede, 2015) is defined as a country-level preference for social networks where individuals are expected to only take care of themselves and their immediate families (as opposed to Collectivism which represents a preference for tightly-knit ingroups within society). GDP and Individualism are included as covariates in the following analyses to control for variation by factors other than gender inequality.

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[10] The pre-registration specified that the Gender Development Index would be used; however, other researchers (Klasen & Schuler, 2011) have indicated that this measure should not be used independently of the Human Development Index. Therefore, the Gender Inequality Index was used instead because it can be used as a single measure.

Results

Analytic Strategy

 Variables. All variables were grand mean centred. Originally, individual-level variables were group mean centred by country, as recommended by some researchers (Enders & Tofighi, 2007). However, preliminary testing using group mean centred variables indicated that they did not fit the Hessian matrix, i.e. there was too much similarity between cases. To overcome this issue, all variables have been centred around the grand mean. Mean scores, by country, are available in Table 2.2.

 As well as mean scores, a number of other variables were created for analysis. For household task discrepancy, two variables (one for childcare and one for housework) were derived by subtracting desired or expected percentage of childcare from actual percentage of childcare, such that negative numbers denoted doing less childcare than expected, and positive numbers doing more, with the midpoint of 0 suggesting complete agreement between actual and expected.

 Analysis. Multi-level regression modelling was used to test Hypotheses 1 and 2 using SPSS software, and the macro *MCMED* (Hayes, 2017) was used to calculate indirect effects with Monte Carlo confidence intervals (Preacher & Selig, 2012). For the first part of Hypotheses 1 and 2, gender role ideology and expected and actual share of childcare/household were entered into models as Level 1 (individual-level) variables, with each country's Gender Inequality Index (GII) score included as a Level 2 (country-level) variable. Models included both random intercepts and random slopes; the fixed effects for these models are reported in Tables 2.3 and 2.4. For the second part of Hypotheses 1 and 2, the variables denoting discrepancy between expectation and actual share of tasks were entered into multi-level models as Level 1 variables, with interaction terms between discrepancy and country-level gender

inequality included to test for moderation. Analysis for Hypothesis 2 (i.e. division of housework) was conducted on the whole dataset (n = 29,392), whilst a subset of data containing only those participants who reported having at least one child (n = 12,355) was used in analysis for Hypothesis 1 (i.e. division of childcare). Turkey was not included in analysis for childcare due to a lack of information about whether there were children in the household. Models were tested with age, sex[11], education, occupation and religion included as individual-level covariates and GDP and Individualism included as country-level covariates.

Childcare Share

The first part of this hypothesis (H1a), regarding expected and actual division of childcare, was supported by the data for gender role ideology but not gender inequality. The fixed effects, outlined in Table 2.4, revealed significant positive associations of individual-level gender role ideology with expected share of childcare, and of expected share with actual division of childcare. The association of country-level gender inequality (GII) with expected share was not significant. There were significant indirect effects of individual-level gender role ideology (b = .06, CI = [.34, .09]) but not country-level gender inequality (b = .03, CI = [-.14, .22]) on actual share of childcare through expected share of childcare. Analysis for hypothesis one was also conducted for country-level gender inequality without gender role ideology as a covariate, however results were still not significant. Therefore, more traditional actual childcare share (where the female partner does the majority) was predicted by more traditional gender role ideology, but not by higher country-level inequality, via more traditional childcare expectation. The correlation between country-level gender

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[11] Whilst Studies 1 and 3 asked participants about their gender, the ISSP asked participants about their sex, and therefore sex is included as a variable in Study 2.

Table 2.1 *Demographic information for the whole sample, by country*

Country (*n*)	*M* age (*SD*)	% female (*n*)	% Christian religion (*n*)	% degree educated (*n*)	*M* years schooling (*SD*)	% paid employment (*n*)	*M* relationship duration (*SD*)	*M* no. of children (*SD*)
Argentina (295)	53.60 (14.81)	48.5 (143)	87.5 (258)	16.9 (50)	10.88 (4.81)	56.9 (168)	27.34 (14.63)	2.00 (1.02)
Australia (974)	55.42 (13.67)	51.3 (500)	61.7 (601)	47.3 (461)	13.60 (3.82)	57.9 (564)	28.34 (15.13)	2.03 (1.31)
Austria (719)	48.51 (15.85)	51.7 (372)	82.3 (592)	13.1 (94)	11.35 (2.43)	63.3 (455)	25.69 (14.74)	1.72 (.80)
Belgium (1150)	55.29 (14.93)	49.0 (563)	62.3 (716)	33.7 (388)	12.21 (3.90)	50.3 (579)	28.37 (16.20)	1.87 (.90)
Bulgaria (536)	53.65 (14.03)	53.9 (289)	79.5 (426)	24.6 (132)	11.67 (3.46)	51.3 (275)	-	1.53 (.77)
Canada (595)	60.97 (12.09)	29.2 (174)	45.7 (272)	46.7 (278)	14.55 (3.80)	47.6 (283)	33.40 (14.13)	1.82 (1.10)
Chile (621)	51.61 (14.99)	60.4 (375)	89.2 (554)	9.2 (57)	10.12 (5.02)	63.1 (392)	26.23 (14.70)	1.80 (1.00)
China (4713)	48.72 (13.84)	46.7 (2203)	2.0 (92)	14.1 (665)	8.27 (4.63)	65.0 (3063)	-	1.38 (.64)
Croatia (571)	47.96 (13.81)	56.0 (320)	91.1 (520)	12.1 (69)	12.04 (2.53)	53.8 (307)	22.59 (14.03)	1.83 (.90)
Czech Republic (1017)	50.31 (13.61)	52.0 (529)	31.7 (322)	9.9 (101)	12.75 (2.06)	64.1 (652)	24.64 (14.14)	1.61 (.63)
Denmark (719)	52.15 (12.88)	53.1 (382)	83.3 (599)	62.7 (451)	13.36 (5.18)	69.0 (496)	25.71 (13.93)	2.58 (1.27)
Finland (619)	53.23 (13.35)	54.0 (334)	82.1 (508)	33.9 (210)	13.85 (3.99)	59.6 (369)	27.71 (14.06)	2.00 (1.28)
France (1235)	54.85 (14.83)	61.9 (765)	55.7 (688)	37.7 (466)	13.78 (4.50)	49.5 (611)	29.27 (15.65)	1.86 (.81)
Germany (975)	54.76 (14.29)	49.8 (486)	65.5 (639)	29.8 (291)	11.99 (4.84)	57.1 (557)	29.99 (15.58)	1.72 (.80)
Hungary (427)	50.95 (13.69)	44.7 (191)	84.1 (359)	16.9 (72)	11.97 (2.86)	57.6 (246)	25.34 (14.55)	1.90 (.98)
India (964)	41.52 (13.42)	33.4 (322)	2.4 (23)	10.0 (96)	7.58 (5.46)	36.5 (352)	15.00 (11.52)	3.15 (2.18)
Ireland (750)	52.29 (13.05)	61.3 (460)	88.8 (666)	39.7 (298)	15.31 (3.81)	55.3 (415)	24.54 (13.45)	2.12 (1.08)
Israel (767)	49.06 (15.66)	56.1 (430)	3.5 (27)	31.7 (243)	13.27 (3.59)	63.1 (484)	24.75 (16.00)	2.46 (1.35)
Japan (789)	54.22 (14.70)	54.1 (427)	1.1 (9)	22.1 (174)	12.88 (2.56)	61.5 (485)	26.95 (15.94)	1.83 (.78)
Latvia (473)	46.83 (12.64)	55.8 (264)	67.9 (321)	27.7 (131)	13.46 (3.13)	69.6 (329)	20.16 (12.49)	1.47 (.59)
Lithuania (604)	49.21 (13.78)	51.8 (313)	93.9 (567)	21.4 (129)	12.92 (2.89)	63.6 (384)	23.16 (13.01)	1.51 (.64)
Mexico (918)	42.82 (14.89)	50.3 (462)	91.0 (835)	16.6 (152)	9.39 (4.72)	57.4 (527)	13.85 (11.72)	2.29 (1.43)
Netherlands (726)	57.94 (13.46)	47.8 (347)	59.1 (429)	41.2 (299)	13.89 (4.04)	51.7 (375)	30.71 (14.46)	1.89 (.88)
Norway (795)	53.92 (13.24)	48.7 (387)	81.0 (644)	52.8 (420)	13.75 (4.55)	66.0 (525)	27.44 (14.41)	1.97 (.91)
Poland (655)	50.97 (14.65)	53.0 (347)	90.4 (592)	22.4 (147)	12.79 (3.82)	57.6 (377)	25.86 (14.90)	1.79 (.98)
Portugal (485)	52.02 (14.34)	51.3 (249)	89.9 (436)	12.8 (62)	8.58 (4.79)	57.1 (277)	26.16 (15.21)	1.49 (.65)
Russia (654)	46.79 (15.12)	58.1 (380)	79.4 (354)	29.5 (193)	12.78 (4.87)	66.5 (435)	-	1.46 (.70)
Slovakia (686)	53.06 (12.83)	45.6 (313)	85.9 (589)	13.8 (95)	13.25 (2.97)	55.7 (382)	28.65 (13.35)	1.77 (.88)
Slovenia (525)	55.75 (13.63)	50.9 (267)	67.4 (354)	16.4 (86)	11.94 (3.45)	49.3 (259)	30.97 (13.56)	1.67 (.79)
South Korea (831)	53.50 (13.95)	52.9 (440)	61.4 (510)	32.5 (270)	11.30 (4.28)	63.3 (526)	-	1.68 (.70)
Sweden (521)	56.08 (14.22)	50.3 (262)	76.2 (397)	41.3 (215)	12.67 (3.72)	57.2 (298)	30.11 (15.34)	1.82 (.91)
Switzerland (705)	53.78 (14.80)	48.7 (343)	73.3 (517)	27.9 (197)	13.39 (3.68)	61.4 (433)	26.51 (15.66)	1.83 (.84)
Turkey (1125)	44.23 (13.83)	53.1 (597)	0 (0)	8.1 (91)	7.12 (3.91)	32.3 (363)	19.81 (13.79)	-
United Kingdom (441)	55.55 (15.08)	44.7 (197)	54.4 (240)	23.1 (102)	12.63 (3.26)	52.4 (231)	-	1.80 (.74)
United States (582)	49.45 (15.08)	53.6 (312)	79.6 (463)	33.2 (193)	13.76 (3.38)	61.7 (359)	21.20 (15.39)	1.94 (.85)
Venezuela (230)	43.62 (13.14)	51.7 (119)	90.9 (209)	9.6 (22)	10.53 (3.47)	50.9 (117)	19.03 (13.06)	2.23 (1.30)
Total (29286)	51.11 (14.68)	50.6 (14864)	52.7 (15493)	25.3 (7000)	1.53 (4.67)	57.7 (16950)	21.63 (1.18)	1.87 (1.14)

Notes.

1. *Christian is chosen as the reference religious group as 53.5% of all participants reported their religion as Christian.*
2. *Data for all countries were not available for some variables.*
3. *Mean number of children is only included for those households (n = 12355, 41.9% of the sample) who had at least one child.*

Table 2.2 *Means and standard deviations across individual-level measures and rank order across country-level measures, by country*

Country (n)	Country-Level			Individual-Level				
	Gender Inequality Index	Gross Domestic Product	Individual-ism	Gender Role Ideology *M(SD)*	% Female Childcare	% Female Housework	Wellbeing *M(SD)*	Subjective Health *M(SD)*
Argentina (295)	33	21	12.5	3.33 (.68)	57.67	69.48	2.01 (.68)	2.76 (.91)
Australia (974)	16.5	27	35	2.87 (.79)	67.49	64.37	2.32 (.88)	2.69 (.98)
Austria (719)	11	16	17	2.97 (.88)	65.50	70.20	2.42 (.70)	2.56 (.90)
Belgium (1150)	9.5	17	30	2.80 (.88)	62.12	67.78	2.47 (.89)	2.90 (.98)
Bulgaria (536)	27	4	7.5	3.12 (.68)	61.44	71.50	2.68 (.95)	3.12 (.95)
Canada (595)	13	28	32	2.73 (.82)	58.52	61.45	2.30 (.86)	2.40 (.88)
Chile (621)	31	13	4	3.39 (.58)	65.48	77.26	2.25 (.83)	3.19 (1.00)
China (4713)	25	35	3	3.16 (.57)	57.93	70.44	2.81 (.92)	3.14 (1.19)
Croatia (571)	18	5	9	2.83 (.85)	64.70	73.78	2.21 (.93)	2.66 (1.11)
Czech Republic (1017)	16.5	8	18	2.81 (.85)	58.49	69.01	2.71 (.88)	2.92 (1.01)
Denmark (719)	1	14	29	2.13 (.84)	53.75	61.89	2.39 (.82)	2.56 (1.01)
Finland (619)	7	11	21	2.46 (.88)	62.09	64.48	2.49 (.88)	3.00 (.95)
France (1235)	12	5	9	2.64 (.93)	65.81	71.07	2.56 (.91)	2.86 (.90)
Germany (975)	9.5	33	27.5	2.39 (.93)	63.15	70.99	2.44 (.73)	3.03 (.93)
Hungary (427)	29	7	32	3.17 (.79)	65.16	71.76	2.49 (.84)	2.29 (.84)
India (964)	36	29	14	3.27 (.63)	38.95	50.94	3.03 (1.34)	2.68 (1.11)
Ireland (750)	21	10	25.5	2.69 (.85)	66.72	69.39	2.37 (.90)	2.44 (1.02)
Israel (767)	19	12	16	2.95 (.76)	62.07	71.72	2.34 (.83)	2.61 (1.01)
Japan (789)	15	34	12.5	2.77 (.73)	76.95	82.39	2.76 (1.09)	3.65 (.99)
Latvia (473)	26	1	25.5	3.23 (.73)	61.20	65.09	2.70 (.88)	3.38 (.87)
Lithuania (604)	20	2	19.5	3.03 (.61)	60.24	67.71	3.19 (.75)	3.11 (.69)
Mexico (918)	34	25	7.5	3.45 (.66)	42.39	67.91	2.21 (.93)	2.83 (1.03)
Netherlands (726)	2.5	23	32	2.67 (.83)	64.81	68.02	2.35 (.72)	2.87 (.94)
Norway (795)	5.5	19	24	2.41 (.81)	54.95	65.26	2.49 (.79)	2.75 (1.05)
Poland (655)	22	18	19.5	2.97 (.78)	58.59	65.11	2.26 (.81)	3.28 (.88)
Portugal (485)	14	9	5.5	2.91 (.74)	55.88	74.37	2.33 (.72)	3.05 (.99)
Russia (654)	30	30	11	3.19 (.74)	63.65	65.36	2.64 (.89)	3.47 (.87)
Slovakia (686)	24	6	15	2.89 (.80)	61.39	65.74	2.54 (.92)	2.95 (.89)
Slovenia (525)	5.5	3	5.5	2.73 (.75)	55.73	75.40	2.59 (.84)	3.04 (1.08)
South Korea (831)	8	26	2	3.45 (.67)	69.93	75.62	2.98 (1.03)	2.78 (1.10)
Sweden (521)	2.5	20	27.5	2.38 (.84)	55.85	62.26	2.38 (.88)	2.53 (.87)
Switzerland (705)	4	22	23	2.98 (.72)	61.62	73.68	2.19 (.78)	2.54 (.97)
Turkey (1125)	32	24	10	3.43 (.78)	-	75.33	2.83 (.95)	2.95 (.93)
United Kingdom (441)	23	31	34	2.76 (.75)	60.26	65.35	2.25 (.86)	2.69 (1.06)
United States (582)	28	36	36	2.91 (.66)	62.86	65.08	2.17 (.81)	2.44 (1.11)
Venezuela (230)	35	15	1	3.18 (.71)	57.68	59.10	1.98 (.87)	2.54 (1.00)
Total (29286)	-	-	-	2.94 (.82)	59.03	68.89	2.55 (.93)	2.90 (1.05)

Notes.

1. *For country-level ranked data, some items have a value of .5, this denotes cases where two countries were awarded the same rank.*
2. *Both childcare and housework hours include the '0' hours answer option and range up to '95 or more' hours.*

inequality and individual-level gender role ideology was significant, ($r = .197$, $p <$ .001), however these findings indicate that there is some within-country variation between individuals' gender role ideology. Correlations between all variables are available in Table 2.3.

Table 2.3. *Summary of intercorrelations for all variables, at country- and –individual-level*

	1.	2.	3.	4.	5.	6.	7.	8.
1. Country Gender Inequality	-							
2. Country Gross Domestic Product	.08*	-						
3. Country Individualism	-.36*	-.29*	-					
4. Individual Gender Role Ideology	.26*	.07*	-.25*	-				
5. Individual % Female Childcare	-.19*	.01	.06*	.01	-			
6. Individual % Female Housework	-.08*	.03*	-.09*	,07*	.33*	-		
7. Individual Wellbeing	.06*	.08*	-.13*	.07*	-.02	.04*	-	
8. Individual Subjective Health	.02*	.07*	-.14*	.12*	-.02*	.03*	.34*	-

Notes.
1. *$p < .01$

Random slopes testing revealed significant between-country differences in the pathway between gender role ideology and childcare expectation ($b = .02$, $SE = .01$, $p = .002$), but not between childcare expectation and actual share of childcare ($b = .02$, $SE = .01$, $p = .139$). Full results for random slope testing, for each country, are available in Table 2.6.

The second part of hypothesis one focused on the impact of task discrepancy on outcomes, and whether this was moderated by gender inequality. Results, displayed in Table 2.5, show that childcare discrepancy predicted wellbeing, such that doing more than expected was related to higher wellbeing, but not subjective health. There was also no significant moderating effect of country-level gender inequality on wellbeing or subjective health, indicated by non-significant interaction effects.

Table 2.4 *Unstandardized regression coefficients for effect of gender role ideology and gender inequality on childcare and housework share*

	Hypothesis			
	CHILDCARE		HOUSEWORK	
	Expectation	Actual	Expectation	Actual
	b(SE)	*b(SE)*	*b(SE)*	*b(SE)*
Intercept	.25 (.08)***	.35 (.20)	.05 (.08)	.18 (.11)
Country-Level Covariates				
Individualism	-.01 (.25)	-.03 (.48)	-.16 (.32)	-1.23 (.38)**
Gross Domestic Product	.02 (.02)	.04 (.03)	-.004 (.02)	.02 (.03)
Individual-Level Covariates				
Sex	-.05 (.02)***	.68 (.06)***	-.14 (.01)***	.59 (.02)***
Age	-.03 (.01)***	-.25 (.03)***	.02 (.005)***	-.05 (.01)***
Education	-.05 (.01)***	.03 (.02)	-.10 (.004)***	-.04 (.01)***
Occupation	.04 (.02)***	.40 (.07)***	.06 (.01)***	-.02 (.03)
Religion	.04 (.02)**	-.07 (.05)	.10 (.01)***	.03 (.03)
Predictors				
Country-Level Gender Inequality	.17 (.45)	-3.48 (.86)***	.97 (.56)	-3.00 (.67)***
Individual-Level Gender Role Ideology	.33 (.03)***	.23 (.04)***	.65 (.02)***	.13 (.03)***
Expectation		.20 (.04)***		.09 (.02)***
Monte Carlo CIs				
Indirect effect: Inequality	*b* = .03, *CI* = [-.14, .22]		*b* = .08, *CI* = [-.01, .19]	
Indirect effect: Ideology	*b* = .06, *CI* = [.04, .09]		*b* = .06, *CI* = [.03, .08]	

Notes.

1. *$p < .05$, ** $p < .01$, *** $p < .001$

Random slopes testing revealed significant between-country differences for the association of childcare discrepancy with wellbeing ($b = .03$, $SE = .01$, $p = .027$), but not with subjective health ($b = .004$, $SE = .01$, $p = .477$). Full results for random slopes testing are available in Table 2.6.

Housework Share

The first part of this hypothesis (H2a), regarding expectations and actual share of housework, was supported by the data for gender role ideology but not country-level gender inequality. Results, outlined in Table 2.4, indicate significant associations between individual-level gender role ideology and expectation of housework share, and between expected and actual share of housework. Indirect effects testing found significant effects on actual share of housework for individual-

level gender role ideology ($b = .06$, $CI = [.03, .08]$), but not for country-level gender

inequality ($b = .08$, $CI = [-.01, .19]$), through expected share of housework. Analysis

was conducted for country-level gender inequality without including gender role

ideology as a covariate, and here the effect was significant ($b = .20$, $CI = [.02, .40]$),

suggesting that when individual-level factors are not taken into account country-level

gender inequality does predict traditional housework share. In summary, a traditional

actual division of household work (whereby the female partner does more) was

predicted by traditional gender role ideology, through traditional housework share

expectation.

Table 2.5 *Unstandardized regression coefficients for effect of childcare and housework discrepancy on life outcomes*

	Hypothesis			
	CHILDCARE		HOUSEWORK	
	Wellbeing	Subjective Health	Wellbeing	Subjective Health
	b(SE)	b(SE)	b(SE)	b(SE)
Intercept	-.28 (.07)***	-.99 (.08)***	-.13 (.06)*	-.89 (.07)***
Country-Level Covariates				
Individualism	-.10 (.22)	-.47 (.27)	-.16 (.24)	-.57 (.27)*
Gross Domestic Product	.01 (.01)	.02 (.02)	-.003 (.16)	.01 (.02)
Individual-Level Covariates				
Sex	.10 (.02)***	.06 (.02)*	.01 (.01)	.09 (.02)***
Age	.06 (.01)***	.20 (.01)***	.04 (.005)***	.17 (.005)***
Education	-.04 (.01)***	-.07 (.01)***	-.04 (.004)***	-.08 (.004)***
Occupation	.01 (.02)	.12 (.02)***	.02 (.01)	.17 (.01)***
Religion	-.04 (.02)	-.004 (.02)	-.05 (.01)***	-.01 (.01)
Predictors				
Country-Level Gender Inequality	-.41 (.39)	-.33 (.48)	-.20 (.43)	-.44 (.47)
Individual-Level Gender Role Ideology	.01 (.02)	.04 (.02)	.02 (.01)	.06 (01)***
Discrepancy	.11 (.04)*	-.04 (.04)	.10 (.02)***	-.03 (.02)
Discrepancy * Gender Inequality	.05 (.31)	.18 (.21)	-.50 (.16)**	-.14 (.16)

Notes.

1. *$p < .05$, **$p < .01$, ***$p < .001$

Random slopes testing revealed significant between-country differences in the

pathways between gender role ideology and housework expectation ($b = .01$, $SE =$

.001, $p < .0001$) and between expected and actual share of housework ($b = .01$, $SE = .003$, $p = .035$). Full results for random slope testing, for each country, is available in Table 2.6.

The second part of hypothesis two related to the impact of discrepancies between expected and actual division of housework on wellbeing and subjective health, and whether this differed based on gender inequality. Results, displayed in Table 2.5, show that housework discrepancy predicted wellbeing but not subjective health; the positive association indicates that participants who reported doing more housework than their expectation subsequently reported higher wellbeing. There was no moderating effect of gender inequality on subjective health, but the interaction between housework discrepancy and country-level gender inequality was significant and positive for wellbeing, suggesting that the effect of doing more housework on wellbeing was stronger in countries with higher levels of gender inequality.

Random slopes testing revealed significant between-country differences in the association between housework discrepancy and wellbeing ($b = .01$, $SE = .003$, $p = .037$), but not subjective health ($b = .01$, $SE = .003$, $p = .075$). Full results for random slope testing, for each country, are available in Table 2.6.

Additional Analysis

As well as country differences as described above, an ANCOVA was used to determine whether there were gender differences in individual-level gender role ideology (based on findings from Study 1, above, that there were no gender differences). Results show a significant main effect of gender, ($F(1,28207)=247.51$, $p < .001$), such that male ideology was more traditional.

All mediation models were also re-rested with country-level gender inequality as a moderator, to determine whether the effects of individual level gender role

ideology might differ between high- and low-inequality countries. Across all hypotheses only one pathway, in H2a, had a significant moderation effect ($b = -.10$, $SE = .04$, $p = .030$), such that traditional gender role ideology was a stronger predictor of expectation of traditional housework share (but had no effect on actual housework share) in countries with lower levels of gender inequality.

Next, H1b and H2b were re-tested including gender as a moderator, to determine whether the impact of discrepancies might differ between men and women. The same models described above were tested with the addition of a dummy-coded sex variable (0=male and 1=female) in an interaction term with childcare/housework discrepancy. Results indicated a significant moderation by gender for the association between childcare discrepancy and wellbeing ($b = .19$, $SE = .06$, $p = .001$), suggesting that the association may be stronger for females than for males. Simple slopes testing confirmed this: the association between childcare discrepancy and wellbeing was not significant for male participants ($b = .01$, $SE = .06$, $p = .866$), but it was significant for female participants ($b = .23$, $SE = .06$, $p = .001$), with the positive association suggesting that doing more childcare than anticipated is related to higher levels of wellbeing. There was no significant moderation by sex for the association between childcare discrepancy and health ($b = -.03$, $SE = .06$, $p = .659$) and therefore simple slopes testing was not conducted.

Moving onto housework discrepancy, results indicated a significant moderation by sex for the association between housework discrepancy and wellbeing ($b = .11$, $SE = .03$, $p = .001$), with simple slopes testing revealing that the association was stronger for female participants ($b = .16$, $SE = .04$, $p < .001$) than male participants ($b = .07$, $SE = .04$, $p = .089$), suggesting that female participants report higher wellbeing when they do more housework. There was no significant

Table 2.6 *Random slopes testing, unstandardized regression coefficients for significant pathways, by country*

Country	Pathway				
	Gender Role Ideology to Expectation of Childcare *b(SE)*	Gender Role Ideology to Expectation of Housework *b(SE)*	Expectation of Housework to Actual Division *b(SE)*	Childcare Discrepancy to Wellbeing *b(SE)*	Housework Discrepancy to Wellbeing *b(SE)*
Argentina	.14 (.17)	.58 (.10)***	.04 (.13)	-.19 (.57)	-.18 (.11)
Australia	.44 (.08)***	.71 (.04)***	.07 (.42)	-.07 (.24)	-.01 (.10)
Austria	.33 (.08)***	.72 (.05)***	.04 (.08)	.15 (.32)	.07 (.09)
Belgium	.45 (.06)***	.80 (.04)***	.15 (.07)	.31 (.20)	.05 (.10)
Bulgaria	.24 (.09)**	.62 (.07)***	.02 (.09)	.08 (.18)	.13 (.12)
Canada	.45 (.10)***	.78 (.04)***	.24 (.11)*	.01 (.29)	.19 (.13)
Chile	.29 (.09)**	.59 (.07)***	.23 (.10)*	.44 (.14)**	.06 (11)
China	.20 (.03)***	.38 (.03)***	.16 (.04)***	-.05 (.05)	.03 (511.25)
Croatia	.22 (.06)***	.64 (.05)***	.06 (.12)	-.17 (.20)	.12 (.12)
Czech Republic	.06 (.05)	.41 (.05)***	-.01 (.15)	.14 (247.20)	.09 (.40)
Denmark	.32 (.10)	.67 (.04)***	.01 (.25)	.31 (.20)	.10 (.10)
Finland	.36 (.09)***	.62 (.04)***	.28 (.09)**	.62 (.29)*	.06 (.14)
France	.33 (.10)	.70 (.03)***	-.04 (.07)	.29 (.24)	.25 (.08)
Germany	.22 (.07)**	.79 (.04)***	.06 (181.02)	-.07 (.17)	.13 (.07)
Hungary	.35 (.38)	.68 (.06)***	.16 (.10)	.69 (.25)*	-.01 (.13)
India	.37 (.08)***	.33 (.07)***	.03 (.18)	-.14 (.21)	-.45 (.11)***
Ireland	.33 (.64)	.63 (.04)***	-.07 (.10)	.72 (.24)**	.15 (.11)
Israel	.32 (.06)***	.67 (.05)***	.001 (.08)	-.13 (.14)	.21 (.09)*
Japan	.21 (.06)**	.67 (.06)***	.03 (.07)	.20 (.28)	.29 (.10)
Latvia	.39 (.07)***	.57 (.07)***	.19 (.08)*	.30 (.19)	.34 (.13)*
Lithuania	.39 (.15)	.51 (.06)***	.99 (.66)	-.04 (.16)	.09 (.09)
Mexico	.19 (.08)*	.69 (.06)***	.18 (.09)	-.09 (.10)	.10 (9.17)
Netherlands	.75 (.10)***	.73 (.04)***	.09 (.09)	.12 (1915.73)	.09 (.09)
Norway	.29 (.51)	.59 (.03)***	.12 (.09)	.48 (.21)*	.13 (.12)
Poland	.47 (.06)***	.80 (.05)***	-.06 (.09)	.03 (.15)	.03 (.09)
Portugal	.05 (.10)	.57 (.06)***	.13 (.14)	-.02 (.15)	.27 (.10)*
Russia	.15 (.06)*	.55 (.05)***	.22 (.10)*	-.24 (.17)	-.07 (.11)
Slovakia	.29 (.06)***	.48 (.05)***	.18 (181.03)	.04 (.18)	.18 (.11)
Slovenia	.33 (.09)***	.69 (.04)***	.12 (.08)	-.21 (.20)	-.06 (.12)
South Korea	.13 (.07)	.54 (.06)***	.13 (.09)	.57 (.18)**	.23 (.71)
Sweden	.55 (.11)***	.67 (.04)***	.32 (.12)**	.18 (.41)	.27 (.16)
Switzerland	.48 (.10)***	.73 (.06)**	-.003 (.08)	-.23 (.19)	.16 (.20)
Turkey	-	.51 (.29)	-.18 (.06)	-	-.01 (.08)
United Kingdom	.40 (.46)	.65 (.06)***	.27 (.13)	.20 (.34)	.14 (.15)
United States	.45 (.11)***	.84 (.06)***	.12 (.10)	.10 (.23)	.16 (.10)
Venezuela	.07 (.12)	.67 (.11)***	-.14 (.17)	-.11 (.23)	-.15 (.15)

Notes.

1. ** p < .05, ** p < .01, *** p < .001*

moderation by sex for the association between housework discrepancy and subjective health ($b = -.02$, $SE = .04$, $p = .566$), and therefore simple slopes testing was not conducted.

Lastly, I tested cultural and gender differences in sense of power. Two power variables were created: power over decisions about raising children, and power over choosing weekend activities. Chi-squared analysis was used to determine whether there were country differences in power, and multinomial level regression models tested the dummy-coded sex variable as a predictor of power. For each model (tested separately: the model for power over decisions about raising children was run on participants with children only), the middle 'equal/shared' power option was used as the reference category, with 'mostly woman' and 'mostly man' as the comparisons. Chi-square analysis showed significant country differences for both power over decisions about raising children ($\chi^2(68) = 1473.31$, $p < .001$), and power over choosing weekend activities ($\chi^2(70) = 1915.36$, $p < .001$), however no clear patterns emerged in terms of which cultures were more likely to assign power to which gender. Moving on to sex, results also indicated significant differences. For power over raising children, female participants were more likely to choose 'mostly woman' than the reference category ($b = -.40$, $SE = .05$, $p < .001$), and male participants were more likely to choose 'mostly man' ($b = .41$, $SE = .07$, $p < .001$). For power over choosing weekend activities, the same pattern emerged: female participants were more likely to choose 'mostly woman' than the reference category ($b = -.19$, $SE = .04$, $p < .001$), and male participants were more likely to choose 'mostly man' ($b = .19$, $SE = .04$, $p < .001$).

Discussion

This study explored associations between individual-level gender role ideology and country-level gender inequality with the share of household tasks within romantic relationships. Traditional gender role ideology was related to both more traditional childcare division within relationships (whereby the female partner did the larger share) and more traditional housework division (whereby the female partner did the larger share), mediated by expectations about the division of labour. Country-level gender inequality, on the other hand, was not related to division of household tasks in the same pattern. Furthermore, results revealed that discrepancy (i.e. incongruence between expected and actual division of household tasks) predicted better wellbeing.

Gender Role Ideology

Past research has identified traditional gender role ideology, and in particular the endorsement of the male breadwinner/female homemaker dichotomy, as being related to the share of tasks at home, such that more traditional ideology is related to female partners doing more housework and childcare (Evertsson, 2014; Lachance-Grzela & Bouchard, 2010). These findings support this, building on previous literature by examining the effects of gender role ideology on both expected share of tasks and actual share of tasks. Whilst it could be assumed that the relationship between traditional gender role ideology and traditional division of tasks in the home is in part mediated by traditional expectations of the share of tasks, this is, to my knowledge, the first study to empirically test this assumption.

Traditional gender role ideology predicted both traditional expected share of childcare and traditional actual share of childcare, with an expectation of women partaking in the majority of the work, followed by women actually doing more of the work. The same pattern emerged for share of housework. These findings support past

research showing that traditional gender role ideology is related to mothers undertaking more childcare (Evertsson, 2014), and women conducting more housework (Kan & Laurie, 2016). Less traditional gender role ideology is related to fathers participating in childcare (Gaunt, 2006), and men doing more housework (Nitsche & Grunow, 2016). Some research, however, has found that in countries which support gender equality less housework in general is performed, especially by men with egalitarian attitudes (Treas & Tai, 2016), suggesting that those with egalitarian roles may be more likely to outsource some of this domestic work, or that the acceptable standard for a home has fallen, although this effect could be due to increased use of appliances that reduce workload. There may also be differences in the specific childcare and housework tasks performed by men and women: for example fathers often perform tasks like putting children to bed (Evertsson, 2014) and playing with children whilst mothers are responsible for childcare management (Musick, Meier & Flood, 2016); and whilst women spend more time on 'core' household tasks such as cooking and cleaning, men spend more time on tasks such as gardening and repairs (although women's overall housework time is still higher; Bianchi, Milkie, Sayer & Robinson, 2000).

Country-Level Gender Inequality

Analysis did not uncover any associations between country-level gender inequality and share of household tasks. This is an important finding as much research in this area is focussed on using country-level data such as gender inequality scores and overall workforce participation (Ruppanner, 2010), whilst these findings suggest that individual-level factors such as gender role ideology and sociodemographic circumstances may play a stronger role, especially in countries where individual attitudes might be at odds with country-level factors. This research has found an

association between country-level gender inequality and individual-level gender role ideology, such that those in countries with greater inequality are more likely to have traditional gender role ideology, however it is important to further explore the ways these dimensions work together. The importance of country- and society-level environment in the shaping of individual values and norms has been explored in other research, for example finding that societal environment might have a stronger effect on the ideology of young people than do family norms (Mavrokonstantis, 2015), a finding which is not disputed by the current study although it does warrant further research. There is also a suggestion that relationships might be more likely to break down when individuals have traditional beliefs in a typically less traditional society (Marshall, 2008), emphasising the importance of understanding the associations between these factors. Research suggests, for example, that individuals experience higher subjective wellbeing when their own political ideology is congruent with the larger political context in their country (Stavrova & Luhmann, 2016), and it is possible that this effect could extend beyond the realm of political ideology into other attitudes and beliefs, such as gender role ideology. It is important, however, to continue exploring the impact individual-level factors such as gender role ideology and personal sociodemographic circumstances, alongside country-level indicators, as this research suggests that these factors are strong predictors of outcomes including household task share and wellbeing.

The policy context in many countries, especially in Europe, has rapidly changed in recent years, with the introduction of new policies such as equal family leave (Hart et al., 2019). It is possible that these policy changes have not yet impacted individual attitudes, or vice versa such that people's attitudes and behaviours may be less traditional than their country's policies. Continuing research along these lines, but

with a longitudinal component, would enable a greater understanding of the associations between individual-level attitudes and country-level policy context. Whilst past research has shown an association between country-level gender equality and egalitarian attitudes (Sjöberg, 2004), the causal direction remains unclear.

Life Outcomes

Turning to life outcomes, both childcare and housework discrepancy were related to wellbeing, such that doing more than expected predicted higher wellbeing, but not subjective health. Exploratory analysis of these associations by gender suggest that the positive effects of doing more housework and childcare are stronger for women. The direction of these findings was not expected, as past research suggests that higher household work hours, as well as unequal divisions of labour, are related to lower satisfaction (Bird, 1999; Ruppanner et al., 2018). It is possible that the positive effect of increased childcare on wellbeing could be due to the nature of this unpaid work; childcare involves socialising with others, either the children or other adults for example at a playgroup, which could increase wellbeing (Baumeister, Vohs, Aaker & Garbinsky, 2013). It is also possible that other factors might impact the association between unpaid work and life outcomes for women, for example a study of working mothers in Turkey found that it was emotional, rather than instrumental (i.e. physically helping with tasks), spousal support that had a greater effect on reducing negative feelings (Irak, Kalkışım & Yıldırım, 2019).

The gendered finding, in exploratory analysis, that women are more likely to experience increased wellbeing when they are participating in more household work than they expected could be due to the complex nature of women's multiple roles (Simon, 1995). Working mothers experience work-family conflict and employment guilt related to their multiple roles (Simon, 1995; Irak et al., 2019), feeling that they

are not able to give enough time to their families as well as their careers. These findings suggest that when women do more at home than they had expected to do this might negate some of the conflict and guilt that they feel.

Sense of Power

In addition to testing these hypotheses, some (pre-registered) exploratory analysis was conducted, to look at gender and country differences in sense of power. Differences were observed between countries in the attribution of power over raising children and choosing weekend activities, although the patterns which emerge here are not clear. There are clear gender differences, however, with both men and women more likely to report that they have the most power over these domains, suggesting that individuals perceive their own sense of power as greater than their partner's. It is worth noting, however, that the vast majority of participants chose the middle 'equal/shared' power option for these questions, meaning that only a minority of participants attributed power to one partner (and when they did, they were most likely to choose themselves). This finding offers support for lack of gender differences in sense of power observed in Study 1, suggesting that, whilst power in relationships is often gendered (Meyers-Levy & Loken, 2015; Robnett & Leaper, 2013), individuals tend to perceive their own power as equal to or greater than that of their partner.

Limitations and Further Research Directions

As with any secondary analysis, this project was limited by the data available, although the scope of the ISSP and the number of participants and countries it samples is a great strength. For some hypotheses in this study proxy items had to be used, for example '*a man's job is to earn money; a woman's job is to look after the home and family*' to deduce traditional or non-traditional expected division of housework. Ideally, more appropriate questions, asking specifically about the ideal

share of tasks, would have been included. It is also possible that the data, particularly that surrounding the actual share of tasks within a household, could be subject to self-report bias, with participants believing that they spend longer on tasks than they actually do (Kamo, 2000). Some studies have attempted to overcome this issue by employing time diaries (see Lachance-Grzela & Bouchard, 2010 for review), however, this greatly increases participants' burden.

Whilst the ISSP covers some 40 plus countries (of which 36 were used here due to lack of country-level data for some entries), many of these are in the same geographical regions, in particular Europe and North America, with some countries in South America and Asia also sampled. Future research should broaden the scope of the analysis, including more Latin American and Asian countries as well as countries in Africa (it should be noted that South Africa was included in the ISSP dataset, but it was excluded from this analysis due to a lack of complete country-level data).

Future research could attempt to unpack the links between gender role ideology, share of household tasks, and subsequent wellbeing and health, for example through comparative analysis of responses from both partners, as some research suggests that couples who both have egalitarian attitudes but divide their labour in a traditional way might have an increased risk of breakup (Oláh & Gahler, 2012). By comparing the expectations and resulting division of tasks within couples (analysis that was not possible in the current dataset as no information to link household members was provided), it would also be possible to explore whether individuals gave an accurate representation of their own and their partners' household labour. Men, for example do relatively little housework unless both they and their wives have egalitarian beliefs (Greenstein, 1996b). Other research could also focus on more mixed methods or qualitative approaches, such as that used by Simon (1995) to

explore men and women's multiple roles, to delve deeper into the reasoning behind discrepancies in expected and actual shares of housework and childcare, and how these relate to outcomes, especially for women.

Practical Implications

The findings of this study also have practical implications. Whilst there is a correlation between country-level gender inequality and individual-level gender role ideology, it appears that it is individual-level attitudes which drive behaviours in the domain of household tasks, and therefore research should continue to consider these individual-level factors alongside country-level indicators. Although it is important for country-level changes to occur, such as policy updates and improved services for women and parents, work also needs to be done to impact individual-level attitudes. Research suggests that exposure to non-traditional mothers, that is those who work outside of the family home, results in sons spending more time caring for family members (McGinn, Castro & Lingo, 2015) and more endorsement of egalitarian gender role ideology (Boehnke, 2011), and individual-level outcomes such as these are in part driven by country-level changes such as increased access to the workforce for women.

Conclusion

This study found associations between individual-level gender role ideology and share of both housework and childcare tasks, including that these associations are mediated by expectations about division of labour. This finding is, to my knowledge, unique to this study, as past research has not taken into account both expectations of and actual division of labour in the same model. Study 2 failed to find any associations between country-level gender inequality and division of labour, however, suggesting that these individual-level factors are stronger predictors, although further

research to unpack different factors at the country-level is warranted. Finally, women who did more childcare and housework than they expected reported higher wellbeing than women who did less, suggesting that women might be happier when they feel they can balance their multiple roles more successfully.

Study 3: Relationship Breakups in the West and India: Similarities, Differences, and the Role of Gender Role Ideology and Parental Influence on Mate Choice

Relationships are often a source of great excitement and pleasure for people, with being in a high-quality relationship associated with increased life satisfaction, wellbeing, and health outcomes across cultures (Diener et al., 2000; Holt-Lunstad et al., 2008; Kim & McKenry, 2002). Much research, including studies 1 and 2 of this thesis, has focussed on relationship formation and maintenance, such as mate preferences (Chen et al., 2009; Eastwick et al., 2006), parental influence over relationship decisions (Buunk et al., 2010; Talbani & Hasanali, 2000) and managing partners' roles, especially in the home sphere (Gaunt, 2006; Lachance-Grzela & Bouchard, 2010). Not all relationships last forever, though, and it is important to also study what happens at the point of a relationship breakup, to help understand the predictors and consequences of breakups and equip practitioners such as therapists with strategies to help people manage their breakup distress. Study 1 began to explore this idea, finding that those with more traditional gender role ideology and higher levels of parental influence on mate choice were more likely to stay in a relationship, and Study 2 found that those with traditional gender role ideology had more traditional divisions of household labour within their relationships, but neither of these studies answered the question of why relationships may breakup.

Past research has examined reasons for relationship breakups (Gravningen et al., 2017; Lyngstad & Jalovaara, 2010), and how reasons such as mismatched attitudes can contribute to the dissolution of relationships (Hohmann-Marriott, 2006; Oláh & Gahler, 2012). We know that relationships tend to differ across cultures, such as in the amount of influence parents and other family members have over individuals' mate choices (Buunk et al., 2010) and attitudes about marriage and

premarital relationships (Hojat et al., 1999; Thornton & Young-DeMarco, 2001), as well as attitudes about divorce (Diener et al., 2000; Yodanis, 2005). Generally, more collectivistic cultures and those that endorse more traditional gender role ideology (i.e., beliefs about the roles of men and women based on their biological sex; Boehnke, 2011) tend to adhere to more traditional relationship practices. For example, they are more likely to endorse arranged marriage, are less accepting of sex before marriage, and focus more on the importance of family and the tight-knit ingroup (Desai & Andrist, 2010; Lo, So & Zhang, 2010). On the other hand, individualistic cultures who value a less traditional gender role ideology – i.e., those who emphasize individual choice more than conformity to tradition (Hofstede, 1980) – have a more equal division of household tasks, are more accepting of premarital sex, and have more favourable attitudes toward divorce (Evertsson, 2014; Thornton & Young-DeMarco, 2001; Toth & Kemmelmeier, 2009). How might these cultural values impact reasons for and causes of relationship breakups, and perceptions of those reasons, across cultures?

The current study is in two parts and utilises a situation sampling method (Morling et al., 2002). Situation sampling enables researchers to assess whether the situations people describe are similar or different across groups, and whether perceptions of these situations are influenced by the culture of the person writing the description and the person reading it. The first part of the study collected data from participants from one non-Western country – India – that values a more typically traditional gender role ideology and accepts higher levels of parental influence over mate choice (Achyut et al., 2011; Bejanyan et al., 2014) than two Western countries – the UK and the US (Buunk et al., 2010; Hill & Marshall, 2018). Next, in Study 3b a second sample of participants from these countries was shown parts of responses

given in the first part of the study and asked a series of questions e.g. '*do you think you and your partner would have broken up in the same situation?*'. Participants also completed a set of gender-related attitude measures: parental influence on mate choice; attitudes toward women, to measure gender role ideology; ambivalent sexism, a measure of both hostile and benevolent sexism; and ambivalence toward men, a measure of hostile and benevolent attitudes toward men.

Relationship Breakups

Whilst relationships bring joy to many people, there is a darker side when relationships go wrong and end. All over the world relationships breakdown (Barber, 2003), although the rates of these breakups are uncertain in some contexts, for example where there is a lack of data on non-marital relationship breakdown. Since the 1970s divorce rates have been rising, especially in the Western world, to a rate of 42% in England and Wales (ONS, 2018), although the rate may be as low as 2% in India (Dommaraju, 2016). However, there is evidence that in some countries the rate has slowed since 1995 (OECD, 2018). Less is known about the frequency of termination of premarital relationships, as official statistics are not generally collected on these. However, some data are available about the dissolution of cohabiting partnerships, where partners live together without being married, either before or as an alternative to marriage. Whilst some research suggests that cohabiting partnerships are more likely to dissolve than marriages (Klijzing, 1992), other research shows that the effect only holds in countries where fewer people cohabit, such as Spain (Liefbroer & Dourleijn, 2006). But what is it that causes relationships to break down?

Primarily focusing on research with North American and European samples, Lyngstad and Jalovaara (2010) identified key factors related to the dissolution of both marriages and other unions: being younger at time of marriage, having lower levels of

education, living in urban areas, and wives earning more than their husbands were all found to be associated with increased dissolution risk. Conversely, religiosity, shared beliefs about the division of household labour (whether traditional or not), and having children appeared to offer a protective effect. Other research has found that issues with relationship quality and poor communication, as well as unfaithfulness, were most likely to be cited as reasons for relationship breakups in the United Kingdom, and this did not differ between couples who were married and those who were cohabiting (Gravningen et al., 2017).

Moving away from Western samples, the research on relationship dissolution across cultures is limited, although it does exist. Demographic research on countries in Sub-Saharan Africa has found that divorce rates vary from 12-20%, and that they have remained fairly stable over time (Odimegwu, Somefun & De Wet, 2017), variation which is similar to that observed across European countries (Clark & Brauner-Otto, 2015). The factors associated with relationship dissolution in Sub-Saharan Africa mirror those observed in Western contexts in the review by Lyngstad and Jalovaara (2010), above, as do findings in Kyrgyzstan (Dommaraju & Agadjanian, 2018) and China (Ma, Turunen & Rizzi, 2018). Similar reasons for breakups have also been recorded in Muslim countries (e.g. age at marriage, level of education, female workforce participation), as well as important culture-specific contexts that might not be considered in Western environments (Sabour Esmaeili & Schoebi, 2017). For example, whilst there is no data on the likelihood of relationship termination for arranged marriages versus other types of relationships, people who were in arranged marriages experienced lower marital satisfaction than those who had individual choice about their future partner.

As well as specific events or issues, there are a number of attitudinal factors that might play a part in relationship breakups. How these might differ, or not, between cultures, especially in relation to factors such as parental influence on mate choice, and gender role ideology which we know vary between groups (Boehnke, 2011; Buunk et al., 2010), could explain some cultural differences in the reasons for relationship breakups.

Parental Influence on Mate Choice

One area in which there are large cultural differences in relationships is in the level of influence from parents and other family members on mate choice. In much of the Western world and individualistic societies relationships tend to be formed, maintained and dissolved by individuals with little involvement of other people (Penn, 2010). In other parts of the world, however, parents and family members play an influential role across the lifespan of relationships. In South Asia, for example, arranged marriages are commonplace (Desai & Andrist, 2010), with parents being involved in choosing suitable mates for their children. This level of parental influence over the formation of relationships and marriages usually means that there is also some level of influence over relationship breakups, too, for example when a partner is deemed unsuitable for the individual or their family. One of the most common examples of this parental involvement in relationship breakups is in India when two members of a couple in a so-called 'love match' are from differing castes (Medora, 2007).

In Muslim countries where arranged marriages are not uncommon, though practised less now than they once were, these unions are related more to lower marital satisfaction than other types of marriage such as those where partners meet without the influence of parents (Sabour Esmaeili & Schoebi, 2017). Research in India,

however, found no differences in factors affecting marital happiness between arranged and love marriages (Sandhya, 2009). Happy couples from both marriage types were more likely, than those in unhappy marriages, to report empathy, support and fulfilled expectations from their spouses, suggesting that the quality of the relationship rather than the specifics of its formation may be more important for subsequent outcomes.

Parental influence over relationships is sometimes also observed in Western contexts, though to differing degrees. In fundamentalist religious communities in the United States parents often have more say in their children's mating choices, with a focus on courtships to find a future spouse rather than a casual dating partner (Vander, 2017). Individuals also desire approval from their social networks, regardless of whether there is a direct influence on their relationships, such that relationship approval from friends and family leads individuals to feel more love and commitment towards their romantic partner (Sinclair, Felmlee, Sprecher & Wright, 2015). These findings suggest that, though collectivist cultures have more influence than individualistic, there is still some influence in Western groups.

Past research has shown that parents play a part in their children's relationships around the world, though this is more common in traditional countries such as India with practices like arranged marriage. Does this cultural difference extend to relationship breakups, and are other people's perceptions of relationships influenced by their own feelings about parental involvement?

Gender Role Ideology

Gender role ideology can also play a role in relationship breakups. Gender role ideology is defined as beliefs and attitudes about the appropriate roles for individuals on the basis of their biological sex, and traditional gender role ideology follows the

male breadwinner/female homemaker model, whereby the male partner goes out to work whilst the female partner stays home to care for children (Boehnke, 2011). Non-traditional, or egalitarian, gender role ideology, on the other hand, states that individuals should have autonomy and choice over their roles in the home, workplace, and community (Boehnke, 2011). In the Western world gender role ideology is generally becoming less traditional (Bolzendahl & Myers, 2004), however in the sphere of the home and in heterosexual relationships, attitudes and actions are often still traditional (Brescoll & Uhlmann, 2005; Lachance-Grzela & Bouchard, 2010).

Some research suggests that incongruencies between gender role ideology and lived experience of gender roles, or differences between partners in ideology, might decrease marital satisfaction, at least for men (Minnotte, Minnotte, Pederson, Mannon & Kiger, 2010). Others suggest that women who endorse egalitarian gender roles yet live in families with traditional divisions of labour might be less satisfied and more likely to leave (Oláh & Gahler, 2012). Research by Marshall (2008) found that Chinese Canadians' more traditional gender role ideology, relative to European Canadians, mediated their lower relationship intimacy and increased the likelihood of relationship dissolution. This suggests that perhaps an incongruence between the traditional views of both partners and the more egalitarian views of the wider Canadian society may have impacted their relationship longevity.

Country context also plays an important role and may explain cross-cultural variation in relationship breakups. In Germany, where policies are focussed on reinforcing male breadwinner families, variations from the traditional heterosexual model in couples where wives were earning and husbands were contributing to housework increased divorce risk (Cooke, 2006). On the other hand, when there is greater policy support for women working, for example in Norway, Finland and

Sweden, women's employment was related to lower divorce risk (Cooke et al., 2013). These findings suggest that an interplay between individual attitudes and cultural context is an important factor to consider when researching relationship breakups, and indeed relationships in general.

Much of the existing literature on relationships has shown that issues surrounding gender roles (e.g. share of tasks at home) can result in lower relationship satisfaction and increased likelihood of breaking up, but does this differ between typically traditional and typically non-traditional cultures? People with traditional gender role ideology also place greater importance on relationships, but does this translate into lower agreement with reasons for breaking up?

Impact of Relationship Breakups

Although ending an unhealthy relationship is likely beneficial for both partners, the initial effect of a relationship breakup can be negative, with breakups associated with increased psychological distress and decreased life satisfaction (Rhoades, Kamp Dush, Atkins, Stanley & Markman, 2011). Past research suggests that there is a protective effect of being married or in a relationship on wellbeing across cultures (Diener et al., 2000; Kim & McKenry, 2002), although this is only true for higher quality relationships (Holt-Lunstad et al., 2008). Relationship and marital problems also have an effect on wellbeing, for example marital problems were associated with reductions in life satisfaction 15 years later in a Norwegian sample (Gustavson et al., 2012).

There are some protective effects on wellbeing following relationship breakups, for example research has found that the negative effect on wellbeing experienced by individuals who still hold positive implicit attitudes about their ex-partner (thus increasing their suffering), was only true for individuals who had not

subsequently found a new partner (Imhoff & Banse, 2011). Other research, however, shows a decline in wellbeing after divorce, especially for couples who have young children (Leopold & Kalmijn, 2016). Turning to health, research suggests that after relationship dissolution reported health improves for some people and declines for others (Monden & Uunk, 2013). Together these findings paint a mixed picture of the potential impact of breakups on life outcomes, suggesting the importance of other factors such as relationship quality and the availability of new partners, and emphasising the need for further research to explore this more.

Study 3

This study explores the reasons behind relationship breakups across cultures, and how these might be related to gender role ideology and parental influence on mate choice, as well as the perceptions other people have about these relationship breakups. There were two groups of interest for this study: Western (the UK and US), typically non-traditional cultures with low levels of parental influence over relationships; and India, a non-Western culture with typically traditional gender role ideology and higher levels of parental influence over relationships. A situation sampling technique (Morling et al., 2002) was used: in the first part of the study, Study 3a, one group of participants were asked to describe their most recent breakup in detail, and in the second part, Study 3b, a new group of participants were asked to read these descriptions and answer questions about them. Using the situation sampling method enables a unique examination into cultural differences and similarities, allowing researchers to determine not only whether culture influences a specific situation (in this case, relationship breakups), but also whether it might influence other people's perception of that situation.

Study 3a

The first part of this study asked participants to give detailed information about their most recent relationship breakup, enabling researchers to gain a deeper understanding of the reasons for breakups and what differences and similarities there might be between Indian and Western (the UK and US) groups. Responses in this part of the study were used to answer the research questions below, and some responses were then used to answer further questions in Study 3b. Alongside the research questions are some predictions about likely findings, as outlined below.

Research Questions[12]

RQ1: *What gender-role related factors do individuals from different cultures cite as reasons for relationship breakups?*

It is expected that Indian participants will be more likely to cite group reasons (e.g. parental influence) than Western participants, as Indian families tend to be more involved in the relationships of their children. Participants with more egalitarian gender role ideology are expected to be more likely to cite gender-related reasons (e.g. the male partner didn't help around the house), because having more egalitarian attitudes tends to make these issues more salient.

RQ2: *How much influence do parents and other close family members/friends have over breakups, and how does this differ between Western and non-Western cultures?*

Indian participants will be more likely than Western participants to cite influence from others, and Westerners may cite influence from others as related to their own decision (e.g. 'my friends knew I wasn't happy so persuaded me to end the

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[12] Research questions were pre-registered on the Open Science Framework: https://osf.io/6jzkw/

relationship'). Participants who score more highly on parental influence will give more detailed answers to this question as they will have more exposure to and experience of parental influence.

RQ3: *What impact do breakups have on health and wellbeing?*

In cases where the participant initiated the breakup they will be less likely to report poor subjective wellbeing and subjective health than participants who did not initiate the breakup. The length of time since the breakup, and the length of the previous relationship, will also affect wellbeing (such that the longer the relationship, and the shorter length of time since the breakup, the poorer wellbeing will be).

Method

Participants

All participants were recruited online. TurkPrime (Litman, Robinson & Abberbock, 2016) was used to facilitate data collection through Amazon's Mechanical Turk (MTurk), where participants from the UK, US and India were recruited, and paid $2 for participation. ProlificAcademic was also used to collect data from some participants in the UK and the US, and participants were paid £2. Data were collected between December 2018 and April 2019, with the majority of data collected by February 2019. Full ethical approval was obtained through the College of Health and Life Sciences research ethics committee prior to the start of data collection.

In total 264 participants took part in the first part of the study; 2 were subsequently excluded because they did not accurately complete attention check questions, 4 because they identified as gay/lesbian and having had relationships with people of the same gender to them, and 49 because the responses they gave to free text questions suggested that they were either not paying attention or were giving

fraudulent answers, for example responses that were clearly copied from the internet or nonsensical[13] (for example writing 'okay' for every response), resulting in a final sample of 209. The majority of participants indicated that they had been in a committed relationship with (123), engaged (4) or married to (20) their partner before the breakup, whilst 62 were casually dating. Roughly half of participants lived with their partner prior to the breakup (100, 47.8%). The mean length of relationship prior to breakup was 3.18 years ($SD = 4.43$, range 0-32 years). Table 3.1 details other demographic information about the participants, by country and for the whole sample.

Materials

Relationship Breakup

Participants were asked for information about their most recent relationship breakup, including the length of the relationship, the time since the breakup, their previous marital status, and whether they were cohabiting before the breakup. Next, participants were asked a series of questions about their most recent relationship breakup. They were asked to answer four questions in as much detail as possible, using the prompt '*Please think about your most recent breakup and answer the following questions in as much detail as possible, including at least three sentences for each where appropriate. We really appreciate your time and look forward to reading your responses.*'

The four questions are outlined below.

Reasons for the breakup. '*Please describe your most recent breakup, giving as much detail as possible (e.g., what were the main reasons that this relationship broke down? Whose decision was it to end the relationship? Etc.):*'.

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[13] All members of the research team agreed that a participants' answers were fraudulent before they were excluded.

Influence from others in the relationship. '*How much influence did your/your ex-partner's parents and other close family members/friends have over your relationship and subsequent breakup? Who influenced your breakup?:*'.

Influence from others in the breakup. '*To what extent did influence from others cause your breakup? How did this happen?:*'.

Aftermath of the breakup. '*Still thinking about your most recent breakup, what has happened since you broke up? For example, how much contact have you had with each other? Do either of you have a new partner now?:*'.

Measures

In addition to the free text questions about relationship breakups, the questionnaire included measures of attitudes toward women and parental influence on mate choice, to determine how these might be related to different reasons given for breakups. The following measures all used a 7-point Likert scale, ranging from 'strongly disagree' to 'strongly agree', unless specified differently below. An attention check item (e.g. '*for this item please choose 'disagree'*') was included in each scale. Higher scores indicate more traditional attitudes. Reliability data for all scales are available in Table 3.5.

Parental Influence on Mate Choice (Buunk, Park & Duncan, 2010)**,** was used to assess the influence participants' parents generally had over their relationship choices (in general; participants were not asked to think specifically about their recent relationship when answering this measure). It consists of 10 items (e.g., '*children should always consult their parents in their choice of a partner*').

Attitudes Toward Women scale. The short version of the Attitudes Toward Women scale (Spence, Helmreich & Stapp, 1973), measuring gender role ideology,

Table 3.1 *Sample demographic variables, by culture*

	Western	Indian	Total	Comparison
		Study 3a (*n*=209)		
	M (*SD*)	*M* (*SD*)	*M* (*SD*)	
AGE	30.35 (9.42)	28.35 (4.75)	29.76 (8.53)	$t(200.52)=-2.02, p = .04$
RELIGIOSITY	2.44 (2.02)	5.10 (1.74)	3.25 (2.94)	$t(200)=-8.99, p < .001***$
	n (%)	*n* (%)	*n* (%)	
GENDER				
Female	66 (44.9)	23 (37.1)	89 (42.6)	$\chi^2 (1) = 1.09, p = .30$
Male	81 (55.1)	39 (62.9)	120 (57.4)	
EDUCATION				
No degree	25 (32.5)	1 (1.6)	58 (27.8)	$\chi^2 (1) = 30.04, p < .001***$
Degree	52 (67.5)	61 (98.4)	151 (72.2)	
ETHNICITY				
Caucasian/White	103 (70.1)	1 (1.6)	104 (49.8)	
Latino/Hispanic	13 (8.8)	-	13 (6.2)	$\chi^2 (10) = 170.70, p < .001***$
African/Caribbean	11 (7.5)	1 (1.6)	12 (5.8)	
Asian	13 (8.9)	59 (95.2)	72 (34.4)	
Other/Mixed	7 (4.8)	1 (1.6)	8 (3.8)	
RELIGION				
Agnosticism	30 (20.4)	1 (1.6)	31 (14.8)	
Atheism	29 (19.7)	-	29 (13.9)	
Buddhism	1 (0.7)	1 (1.6)	2 (1.0)	
Christianity	47 (32.0)	6 (9.7)	53 (25.4)	$\chi^2 (7) = 137.95, p < .001***$
Hinduism	6 (4.1)	50 (80.6)	56 (26.8)	
Islam	4 (2.7)	3 (4.8)	7 (3.3)	
No religion	27 (18.4)	1 (1.6)	28 (13.4)	
Other	3 (2.0)	-	3 (1.4)	
		Study 3b (*n*=427)		
	M (*SD*)	*M* (*SD*)	*M* (*SD*)	
AGE	38.56 (12.19)	29.73 (5.70)	34.55 (10.73)	$t(341.50)=-9.84, p < .001***$
RELIGIOSITY	2.86 (2.19)	5.48 (1.64)	4.07 (2.34)	$t(408)=-14.07, p < .001***$
	n (%)	*n* (%)	*n* (%)	
GENDER				
Female	121 (51.9)	89 (45.9)	210 (49.2)	$\chi^2 (1) = 1.55, p = .21$
Male	112 (48.1)	105 (54.1)	217 (50.8)	
EDUCATION				
No degree	85 (36.5)	8 (4.1)	93 (21.8)	$\chi^2 (1) = 65.06, p < .001***$
Degree	148 (63.5)	186 (95.9)	334 (78.2)	
ETHNICITY				
Caucasian/White	192 (82.4)	6 (3.1)	198 (46.4)	
Latino/Hispanic	13 (5.6)	-	13 (3.0)	$\chi^2 (9) = 363.14, p < .001***$
African/Caribbean	9 (3.9)	1 (0.5)	10 (2.3)	
Asian	9 (3.8)	184 (94.8)	193 (45.2)	
Other/Mixed	10 (4.4)	3 (4.1)	13 (3.0)	
RELIGION				
Agnosticism	34 (14.6)	5 (2.6)	39 (9.1)	
Atheism	40 (17.2)	1 (0.5)	41 (9.6)	
Buddhism	1 (0.4)	1 (0.5)	2 (0.5)	
Christianity	99 (42.5)	28 (14.4)	127 (29.7)	$\chi^2 (8) = 283.67, p < .001***$
Hinduism	4 (1.7)	146 (75.3)	150 (35.1)	
Judaism	2 (0.9)	-	2 (0.5)	
Islam	4 (1.7)	12 (6.2)	16 (3.7)	
No religion	46 (19.7)	1 (0.5)	47 (11.0)	
Other	3 (1.3)	-	3 (0.7)	

Notes.
1. *p<.05, **p<.01, ***p<.001
2. 'Asian' ethnic group includes South, East and Southeast Asian. 'Other/Mixed' ethnic group includes Middle Eastern and Pacific Islander.
3. Analyses were conducted to determine whether there were demographic differences between the participant groups in Study 3a and Study 3b. No significant differences were found with the exception of age: the Western group in Study 3b were significantly older than the Western group in Study 3a, t(378)=-6.96, p < .001

asks participants to rate their agreement with 25 items including '*intoxication among women is worse than intoxication among men*'.

Warwick Edinburgh Mental Wellbeing scale. The 7-item short-form (Tennant et al., 2007) was used to assess participants' subjective wellbeing over the previous two weeks (e.g., 'I have been dealing with problems well'). Items were rated on a 7-point Likert scale from 'none of the time' to 'all of the time', with higher scores indicating higher wellbeing[14].

Covariates

In addition to the above measures, several control variables were included, as outlined below. Past research suggests that conservative (right-leaning) political views, and higher levels of religiosity, tend to be related to more traditional attitudes (Diehl et al., 2009; Sibley & Duckitt, 2008). Demographic variables which differed between cultural groups (age, gender and education; see Table 3.1) are also included as control variables.

Left-Right scale. A measure of left-right agreement (Evans, Heath & Lalljee, 1996) was used to indicate and control for left- and right-wing political leanings, where higher scores indicate more left-leaning views. Participants were asked to rate 5 items, including '*ordinary working people do not get their fair share of the nation's wealth*'. Cross-group comparisons determined that left-right agreement did not differ between cultural groups and therefore this scale was not included as a control variable.

Religiosity. A single item, '*my whole approach to life is based on my religion*', from Gorsuch and McPherson's (1989) Intrinsic/Extrinsic Measurement, was used to measure and control for religiosity. The item was recommended by

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[14] The preregistration stated that a question would also ask participants to rate their subjective health, however due to an error in questionnaire programming the question was not included in the final survey.

Table 3.2 *Codes identified, by cultural group*

	Western n (%)	Indian n (%)	Total n (%)	Chi-square
Breakup decision				
Participant	56 (38.1)	23 (36.1)	79 (37.8)	
Partner	38 (25.9)	7 (11.3)	45 (21.5)	
Mutual	23 (15.6)	3 (4.8)	26 (12.4)	$\chi^2(4) = 21.44$, $p < .001$***
Parents/family members	-	5 (8.1)	5 (2.4)	
Friends	2 (1.4)	-	2 (1.0)	
Fault				
Participant	9 (6.1)	10 (3.9)	19 (9.1)	
Partner	80 (54.4)	35 (13.7)	115 (55.0)	$\chi^2(4) = 18.35$, $p < .001$***
Both	56 (14.7)	11 (4.3)	67 (32.1)	
Neither/Other	1 (.3)	3 (1.2)	4 (1.9)	
Reason for relationship breakup				
Group: Trust issues, cheating, interest in another person	44 (29.9)	18 (29.0)	62 (29.7)	$\chi^2(1) = .02$, $p = .90$
Group: Family issues e.g. backgrounds don't match	7 (4.8)	14 (22.6)	21 (10.0)	$\chi^2(1) = 15.32$, $p < .001$***
Group: Lifestyle reasons e.g. distance or relationship expectations	92 (62.6)	24 (38.7)	116 (55.5)	$\chi^2(1) = 10.07$, $p = .002$**
Group: Communication issues including arguing	35 (23.8)	14 (22.6)	49 (23.4)	$\chi^2(1) = .04$, $p = .85$
Loss of romantic feelings	17 (11.6)	-	17 (8.1)	$\chi^2(1) = 7.81$, $p = .005$**
Financial issues	11 (7.5)	5 (8.1)	16 (7.7)	$\chi^2(1) = .02$, $p = .89$
Sexual/intimacy issues	5 (3.4)	4 (6.5)	9 (4.3)	$\chi^2(1) = .99$, $p = .32$
Mental health issues	9 (6.1)	-	9 (4.3)	$\chi^2(1) = 3.97$, $p = .046$*
Abuse/violence	5 (3.4)	-	5 (2.4)	$\chi^2(1) = 2.16$, $p = .14$
Substances e.g. alcohol	3 (2.0)	-	3 (1.4)	$\chi^2(1) = 1.28$, $p = .26$
Influence over breakup				
No influence	94 (63.9)	37 (59.7)	131 (62.7)	
Influence from Family	17 (11.6)	17 (27.4))	34 (16.3)	
Influence from Friends	32 (21.8)	7 (11.3)	39 (18.7)	$\chi^2(3) = 9.66$, $p = .02$*
Influence from Family and Friends	4 (2.7)	1 (1.6)	5 (2.4)	

Notes.
1. **p<.05, **p<.01, ***p<.001*
2. *In addition to testing for differences by culture, analysis by age (age 18-44 compared to age 45+), religiosity (more or less religious than average) and relationship status were conducted, however subsample sizes were too small, or skewed by culture (e.g. the majority of highly religious participants were Indian), to uncover meaningful results.*

Gorsuch and McPherson (1989) as a stand-alone item that can be used to measure

intrinsic religiosity. This item was only asked of participants who indicated that they

had a religion in a previous question. Religiosity differed between groups and was therefore included as a control variable.

Coding Procedure

All responses to the open response questions were independently coded by two research assistants. They were provided with a coding frame containing some examples of potential reasons for breakups (initially identified by the principal investigator and confirmed by the rest of the research team) and asked to code when each example was present. This coding frame was initially developed by the lead researcher through reading previous literature on reasons for relationship breakups (for example Gravningen et al., 2017), including categories such as cheating, arguments, and loss of romantic feelings. Throughout the coding process, the cases that do not fit the existing coding categories were identified, and new coding categories were created and added accordingly, after agreement by the entire research team. Single-response codes were created for who made the decision to end the relationship, whose fault the breakup was, and whether any influence from others was present. Fault, which was not explicitly asked in the free text questions, was determined by the coding team as which partner seemed to have impacted the breakup the most, for example if one partner cheated then the breakup was deemed to be that person's fault. Multi-response codes (i.e., one participant's description could contain multiple different codes) were created for the reason for the breakup, and these, outlined in Table 3.2, were grouped into categories including trust issues and cheating, family issues, and communication issues. The grouping of codes into these categories was done based on both semantic similarity (for example 'cheating' and 'interest in another person'), and relatedness (for example 'family issues' includes 'background differences' and 'lack of parental approval'). As with the creation of

initial codes, agreement across the research team was required before codes were combined into a single category.

Krippendorff's alpha was used to assess inter-rater reliability between the two research assistants who coded the data, as this was deemed the most appropriate method (Nili, Tate & Barros, 2017), overcoming limitations with other methods such as allowing for multiple coders and missing data. Hayes and Krippendorff's (2007) SPSS macro KALPHA was used to compute the alpha. After 81 responses had been coded the inter-rater reliability was $\alpha = .72$, and coders went through discrepancies together with the aim of improving future agreement. The final cases were then coded, resulting in an improved inter-rater agreement of $\alpha = .86$.

Study 3a Results and Discussion

The first part of this study utilised a combination of free text questions and scales assessing gender-related attitudes in order to answer three broad research questions. Means and standard deviations for each of the scales are available, by culture, in Table 3.5.

Reasons for Breakups

The first research question was '*what gender-role related factors do individuals from different cultures cite as reasons for relationship breakups?*', and Table 3.2 lists the reasons identified, the proportion of Western and Indian participants who cited these reasons, and results of Pearson's chi-square analysis used to determine whether there were differences between the Western and Indian groups. Although many varied reasons for breakups were given, no participants cited gender-role related factors such as partners not helping around the house, however some participants did cite differing expectations between partners. It is possible that gender-role related reasons were not the most salient compared to other issues such as

adultery. Although past research has found that things such as housework discrepancies are related to relationship breakups (Oláh & Gahler, 2012; Ruppanner et al., 2018), it could be that these studies were specifically focussing on these issues, whereas this study asked participants to describe their breakups in general.

As shown in Table 3.2, Indian participants were more likely to cite family reasons, e.g. background differences or being from different castes ('*her parents did not agree about our marriage and she did not want to go against them*' and '*me and my partner are from different castes which is a big issue in India nowadays… this issue slowly piled up on our parents and relations which ultimately ends our relationship*'), than were Western participants, supporting the prediction and past research finding that non-Western parents tend to have more influence over their children's relationships (Buunk et al., 2010; Talbani & Hasanali, 2000). Westerners were more likely to cite lifestyle reasons such as one partner moving to another area for university or work ('*moved apart from each other after university… long distance relationships can be difficult*'); this could be reflective of increased mobility of individuals, or it might suggest that Westerners are less likely to work to maintain relationships across long distances. A number of other factors were identified across the groups as reasons for relationship breakups. There were no cultural differences in trust issues such as cheating (mentioned by both Western: '*my ex-husband had an affair with my best friend*' and Indian: '*he cheated on me many times*' participants), or in communication issues (Western: '*the main reason [for our breakup] was constant arguments*' and Indian: '*me and my partner always had conflict with each other*'), suggesting that these factors might cause relationship problems in both Western and Indian contexts. Some research, for example, suggests that adultery is a reason for

divorce around the world (Betzig, 1989), with approximately 1 in 4 people in the US experiencing it throughout their lifetime (Frisco, Wenger & Kreager, 2017).

Family/Friends Influence

The second research question was '*how much influence do parents and other close family members/friends have over our breakups, and how does this differ between Western and non-Western cultures?*'. Table 3.2 shows the influence from different groups (family/friends) over the relationship breakup. Less than half of all participants reported that there had been any outside influence in their relationship breakup, but over half of Indian participants reported influence. Western participants were more likely to cite influence from friends, whilst Indian participants were more likely to cite family influence. Indian participants were also more likely than Western participants to spontaneously mention parental or family influence in the free text questions. These findings are expected given that non-Western cultures such as India have higher levels of parental influence on mate choice (Buunk et al., 2010) and practices such as arranged marriage are more common (Desai & Andrist, 2010) meaning that breakups may happen when a couple in a 'love match' are from differing castes (Medora, 2007).

Multinomial logistic regression, with influence as the dependent variable[15] (with 'no influence' as the reference category) and culture (Western/Indian) and score on parental influence on mate choice as the predictor variables, was conducted to determine whether those high in parental influence on mate choice would be more likely to cite influence from others, especially family members. Results, in Table 3.3, indicated no significant main or interaction effects of parental influence on mate choice and culture on likelihood of citing influence from others, suggesting that the

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[15] This variable was coded such that 0=No influence, 1=Family Influence, 2=Friend Influence, and 3=Both Family and Friend Influence.

attitudinal measure of parental influence does not necessarily correlate with lived

experience of parental influence over relationships.

Table 3.3 *Unstandardized regression coefficients for effect of culture and parental influence on mate choice on influence from others*

	Family Influence B(SE)	Friend Influence B(SE)	Family and Friend Influence B(SE)
Intercept	.70 (2.1)	2.48 (2.47)	-34.61 (5.58)***
Covariates			
Gender	-.30 (.41)	-.28 (.39)	.71 (.95)
Age	.01 (.02)	-.06 (.03)*	-.06 (.07)
Education	-.18 (.54)	-.13 (.43)	-
Religion	.92 (.56)	-.32 (.48)	.46 (1.13)
Predictors			
Culture (Western/Indian)	-2.44 (1.78)	-1.29 (2.25)	-.21 (5.17)
Parental Influence on Mate Choice	-.56 (.44)	-.40 (.61)	-.57 (1.41)
Interaction (Culture*Parental Influence)	.49 (.53)	.54 (.65)	.29 (1.53)

Notes.

1. *$p < .05$, ** $p < .01$, *** $p < .001$
2. The reference category for this multinomial regression was 'no influence'.
3. Both religion and education were binary variables, coded such that 0 = 'No degree/religion' and 1 = 'Degree/religion'.
4. True R-squared analysis cannot be conducted for multinomial logistic regression. 'Pseudo' R-squared (Cox & Snell, 1971) was .133 across the model however no change in r-squared is reported.

Impact on Wellbeing

The final research question was '*what impact do breakups have on health[16]*

and wellbeing?'. The majority of participants reported that their relationship broke

down between six and twelve months ago, and that the breakup was their decision. To

test whether these factors impacted wellbeing, a regression model was used, with both

duration of relationship and time since breakup as simultaneous predictors of

subjective wellbeing. Results, in Table 3.4, indicate no significant effect on wellbeing

of duration of relationship, or but those who had broken up more recently reported

lower wellbeing, as expected, given past research which suggests that shorter time

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[16] A programming issue meant that the question about subjective health was not asked, and therefore analysis for this question focuses on wellbeing only.

periods since the breakup are related to increased distress (Field, Diego, Pelaez,

Deeds & Delgado, 2009). 45% of participants also reported that they were now in a

Table 3.4 *Unstandardized regression coefficients for effect of relationship breakup factors on wellbeing*

	Relationship Duration B(SE)	Time Since Breakup B(SE)	Breakup Decision B(SE)	Breakup Fault B(SE)
Constant	3.51 (.55)***	2.98 (.52)***	4.06 (.64)***	3.31 (.56)***
Step 1: Covariates				
Gender	-.02 (.16)	.09 (.16)	-.12 (.19)	-.02 (.16)
Age	.02 (.01)	.04 (.01)**	.02 (.01)	.02 (.01)
Education	.28 (.19)	.04 (.20)	.20 (.20)	.27 (.19)
Religion	.81 (.19)***	.95 (.19)***	.79 (.21)***	.81 (.19)***
Culture (Western/Indian)	.02 (.21)	.01 (.21)	-.11 (.25)	-.01 (.21)
R^2	.16	.21	.16	.16
Step 2: Predictor	-.03 (.04)	-.05 (.02)*	-.16 (.10)	-.03 (.11)
R^2	.16	.23	.18	.16
R^2 change	.002	.02	.01	.000

Notes.

1. *$* p < .05, ** p < .01, *** p < .001$*
2. *Both religion and education were binary variables, coded such that 0 = 'No degree/religion' and 1 = 'Degree/religion'.*
3. *Hierarchical regression was conducted, with covariates entered in the first step and predictor variables (Relationship Duration, Time Since Breakup, Breakup Decision, and Breakup Fault) entered in the second step*

new relationship, which could further reduce any impact of the breakup on subjective

wellbeing, provided the new relationship was of high quality (Holt-Lunstad et al.,

2008). The impact of the decision to breakup and partner whose fault the breakup was

on wellbeing was also tested. In the majority (55%) of cases the ex-partner was

deemed to be at fault. As above, regression modelling was used, and results, in Table

3.4, indicated that neither decision nor fault had a significant impact on wellbeing.

Overall, the first part of this study has enabled us to examine three key

research questions relating to relationship breakups across cultural groups. First, both

similarities (e.g. adultery and communication issues) and differences (e.g. parental

influence and lifestyle differences) were observed in reasons for relationship

breakups, although no gender role related reasons were uncovered. Next, Indian

relationship breakups are more heavily influenced by parents and other family

members than are Western relationships. Lastly, no impact of breakups on subjective wellbeing was observed, except for in cases where the breakup was more recent. The next part of the study aims to unpack these cultural effects further, exploring whether perceptions of other people's breakups are influenced by culture and individual attitudes. Could similarities in reasons given for breakups still be perceived differently by different cultures? Do individual attitudes such as gender role ideology influence beliefs about others' relationships, for example whether they ought to have broken up?

Study 3b

Following Study 3a, a new sample of participants was shown the descriptions collected and asked a series of questions about them, for example how much they identify with the subject of the description. This part of the study will adopt a between-subjects design, whereby participants from Western and Indian groups will be shown descriptions written by someone from the same or different culture to theirs. Using this design will enable us to answer some questions the first part of the study could not, for example whether similar relationship breakups are perceived differently depending on if the subject is from the same or other culture. This part of the study will also enable us to test whether perceptions of gender role traditionalism and balance in relationships is viewed the same across groups.

The hypotheses below are proposed for this part of the study. Developed following the collection and coding of the descriptions in Study 3a, they attempt to combine both observations about similarities and differences between groups in their reasons for breaking up (for example the higher proportion of Indian participants who reported breaking up because of family issues) with previously researched attitudinal differences (such as more traditional gender role ideology amongst Indian

participants). Hypothesis 1 focuses on identification with the subject of the description, with the idea that individuals will be more likely to identify with someone from their own group (Holtz & Miller, 1985). Hypothesis 2 relates to gender role ideology, and the importance placed upon the maintenance of relationships by those from Indian backgrounds and/or with more traditional gender role ideology. Hypothesis 3 focuses on parental influence on mate choice, and attempts to combine the individual-level attitude with beliefs about the amount of influence described. Finally, Hypothesis 4 posits that Indian breakups will be rated as more gender role traditional and less equal than Western relationships, following past research suggesting that Western relationships might be more egalitarian (Treas & Tai, 2016).

Figures 3.1 and 3.2 illustrate proposed mediation models for Hypotheses 2c and 3c, explaining cultural differences in perceptions of relationship breakups (either agreement with breakup reasons or beliefs about the level of influence) through cultural differences in two attitudes: gender role ideology and parental influence on mate choice. As previous research, including in Studies 1 and 2 of this thesis, has observed cultural differences in gender role ideology and parental influence on mate choice, it is expected that these might mediate differences in opinions about whether relationships should have broken up (with those from Indian backgrounds less likely to agree because of the importance more gender role traditional groups place on relationships; Eastwick et al., 2006; Chen et al., 2009) and the amount of influence parents and other family members should have over the relationship (with those from Indian backgrounds more likely to agree that influence is acceptable in a relationship; Medora, 2007).
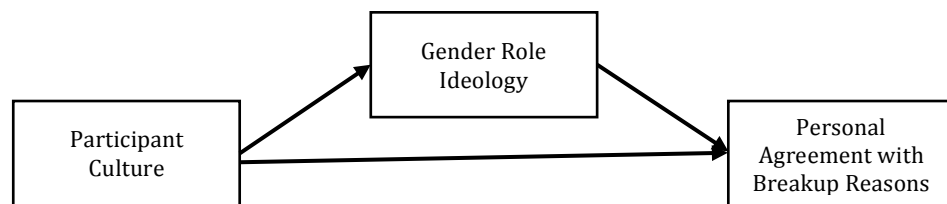
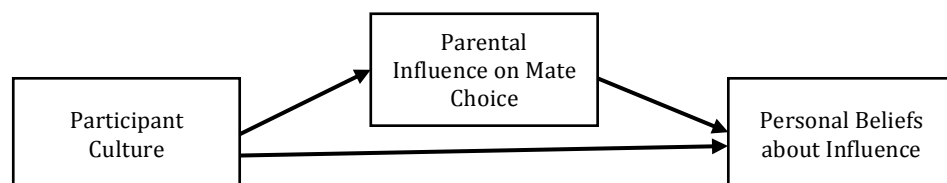Figure 3.1. Mediation model for Hypothesis 2c

Figure 3.2. Mediation model for Hypothesis 3c

Hypotheses[17]

H1. *Participants will be more likely to identify with descriptions from their own cultural group.*

H2a. *Indian participants will have more traditional gender role ideology than Western participants.*

H2b. *Those with a more traditional gender role ideology will have lower levels of belief that the reason given for breaking up was sufficient.*

H2c. *Those with a more traditional gender role ideology will be more likely to agree with Indian breakup reasons, and those with less traditional gender role ideology will be more likely to agree with Western reasons.*

H3a. *Indian participants will have higher levels of parental influence on mate choice than Western participants.*

H3b. *Those with higher levels of parental influence on mate choice will be more likely to agree that the level of influence in descriptions is sufficient or not*

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[17] Pre-registered on the Open Science Framework: https://osf.io/cgm5b/

enough, whilst those with low levels of parental influence on mate choice will agree that the level of influence in descriptions is too much.

H3c. *Westerners, or those low in parental influence, will be more likely to say that Indian descriptions have too much influence, and Indians, or those high in parental influence, will think that Western descriptions contain too little influence.*

H4. *Both Indian and Western participants will rate Indian descriptions as more gender role traditional and less gender equal than Western descriptions.*

Method

Participants

All data were collected from participants online. TurkPrime (Litman, Robinson & Abberbock, 2016) was used to facilitate data collection through Amazon's Mechanical Turk (MTurk), where participants from the UK, US and India were recruited, and paid $2 for participation. ProlificAcademic was also used to collect data from some participants in the UK and the US, and they were paid £3.50. All data were collected between May and June 2019. Full ethical approval was obtained through the College of Health and Life Sciences research ethics committee prior to the start of data collection.

In total 465 participants completed the survey for the second part of the study: 27 were subsequently excluded for incorrectly answering three or more check questions, 3 because they answered less than half of the description questions, and a further 8 because they identified as gay/lesbian and not having relationships with members of the opposite sex, resulting in a final figure of 427 participants. These participants were completely separate from those who completed Study 3a. The majority of participants reported that they were in a relationship (including married),

and over 90% had experienced at least one relationship breakup themselves. Further demographic information about participants is available in Table 3.1.

Materials and Measures

Breakup Descriptions

In total 209 participants gave descriptions of their breakups in Study 3a, and 80 of these (20 male and 20 female from each culture) were chosen to be presented to participants in Study 3b. Descriptions were chosen using a random number generator, whereby each description was allocated a number and 20 random numbers for each gender by culture were generated.

For Study 3b participants were asked to complete the same scales as outlined in Study 3a above, with the exception of the Warwick-Edinburgh Mental Wellbeing scale, which was not included in this questionnaire. Participants were then presented with 20 of the descriptions collected in Study 3a and asked to read the descriptions carefully and place themselves in the position of the person writing the description. All descriptions used participants' original wording where possible, but some alterations were included to increase understanding. Any identifying information including specific details about the participant's culture was excluded. An example of the introductory text, and an example description from each of the four groups (culture by gender), are presented in the Appendix.

After reading each of the descriptions participants were asked a series of five questions about each of them. These were: 1) '*To what extent do you think you would behave in similar ways to this person?*', 2a) '*Are the reasons described in this description sufficient to cause a relationship breakup?*', 2b) '*Do you think you would have broken up in the same situation?*', 3) '*What do you think about the level of influence from other people (e.g. family, parents, friends) in this description?*', 4)

'*How traditional do you think the gender roles of this couple were? For example, do you think the man would make most of the decisions whilst the woman submits to him?*' and 5) '*How balanced do you think this relationship was? Was there an unequal gender balance in the relationship?*'. All questions were rated on a Likert scale from 1 to 5, with the exception of question 2b about whether participants would have broken up in the same situation, which had a Yes/No response. For the questions on identification (1), sufficient reason for breakup (2a), influence from others (3), and levels of traditionalism (4) and balance (5) in the relationship, mean scores across the 20 descriptions were created, with higher scores indicating higher agreement. For the breakup question a percentage score showing the proportion of times (out of 20 descriptions) participants said 'Yes' was created.

Procedure

A between-subjects design was used, whereby all participants were shown 20 descriptions from either the same or different cultural group to their own (Western or Indian). Participants were presented with descriptions from their own gender. Survey software was used to randomly allocate participants to either the same or different condition, and the order of descriptions was randomized for each participant. Participants first answered questions about the descriptions, followed by the scales (Attitudes Toward Women and Parental Influence on Mate Choice).

<div align="center">

Study 3b Results and Discussion

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Identification

The first hypothesis predicted that participants would be more likely to identify with descriptions written by someone from their own cultural group, and regression analysis, including covariates (i.e. age, education, religion), showed that this was not supported by the data ($B = -.02$, $SE = .07$, $p = .759$), suggesting that

participants were no more likely to identify with someone from the same culture as them than someone from another culture. This finding is unexpected, as individuals tend to believe that people in their group are more similar than those not in their group (Holtz & Miller, 1985), however participants were blind to the cultural background of the people in the descriptions they were reading and it might be that explicit cues are what drives this identification. It is also possible that this finding in part reflects the lack of large differences between cultures in reasons for breaking up, as discussed in Study 3a.

Table 3.5 *Means, standard deviations and reliabilities for all scales, by culture*

		Study 3a			
		Group			Comparison
		Western (*n*=147)	Indian (*n*=62)	Total (*n*=209)	
Parental Influence on Mate Choice	*M (SD)* α	2.10 (.95) .89	3.59 (.68) .77	2.54 (1.11) .92	$t(187.57)=3.57, p < .001***$
Attitudes Toward Women	*M (SD)* A	2.04 (.70) .93	2.82 (.45) .81	2.28 (.73) .93	$t(175.00)=9.65, p < .001***$
Subjective Wellbeing	*M (SD)* α	4.60 (1.32) .94	5.12 (.76) .79	4.76 (1.20) .91	$t(157.67)=12.69, p < .001***$
		Study 3b			
		Group			
		Western (*n*=233)	Indian (*n*=194)	Total (*n*=427)	
Parental Influence on Mate Choice	*M (SD)* α	1.93 (.85) .88	3.79 (.65) .81	2.78 (1.20) .94	$t(371.00)=17.73, p < .001***$
Attitudes Toward Women	*M (SD)* A	1.93 (.70) .94	2.88 (.38) .75	2.36 (.75) .93	$t(421.36)=25.48, p < .001***$

Notes.
1. *Analyses were conducted to determine whether there were any differences between the participant groups in Study 3a and Study 3b. No significant differences were found across all scales*

Gender Role Ideology

The second set of hypotheses were related to gender role ideology. For the first (H2a), a MANCOVA (also including the Parental Influence on Mate Choice scale for the third hypothesis) was used to test the prediction that Indian participants would have more traditional gender role ideology (Attitudes Toward Women scale) than Western participants, finding a significant difference ($F(1, 419) = 24.34, p <$

.001). A t-test with Bonferroni corrected alpha of .025 showed that Indian participants had more traditional gender role ideology than did Western participants, supporting the first prediction (t(425)=16.87, $p < .001$). This finding corroborates previous research, including Study 1 of this thesis, that Indian participants have more traditional gender role ideology than Westerners (Achyut et al., 2011; Bejanyan et al., 2014).

Next, H2b predicted that those with more traditional gender role ideology would have a lower belief that the reason for the breakup was sufficient. Regression analysis was run with gender role ideology as the independent variable and belief that the breakup reason was sufficient as the dependent variable, and this prediction was again supported by the data. Results, in Table 3.6, show that those with traditional gender role ideology appear to have a lower belief that the reasons given for breaking up were sufficient, perhaps because of the emphasis in traditional cultures and ideology on the importance of relationships and maintaining harmony (Markus & Kitayama, 1991).

Finally, Hypothesis 2c predicted that Indians, or those high in traditional gender role ideology, would be more likely to agree with Indian breakup reasons, whilst Westerners, or those low in traditional ideology, would be more likely to agree with Western reasons. The data did not support this hypothesis. Using regression analysis to predict breakup reason by gender role ideology and same/different culture, no significant effects were observed, results in Table 3.6.

To test whether gender role ideology mediated any association between participant culture and agreement with breakup reasons, a mediation model (illustrated in Figure 3.1 above) using the PROCESS macro was conducted, again with the dataset split by description culture in order to determine differential effects.

For Indian descriptions, neither the direct effect of participant culture on agreement (b = 2.03, SE = 4.73, p = .668) or the indirect effect through gender role ideology (b = .555, SE = 2.72, CI [-4.76, 6.00]) was significant. For Western descriptions, the direct effect of participant culture on agreement was significant (b = 11.88, SE = 5.15, p = .022), but this effect was not mediated by gender role ideology (b = -2.75, SE = 3.06, CI [-8.75, 3.30]). In summary, Western participants were more likely than Indian participants to agree that Western descriptions contained sufficient reasons for

Table 3.6 Unstandardized regression coefficients for effect of culture and gender role ideology on perceptions of breakups, and culture and parental influence on mate choice on perceptions of influence in breakups

	H2b: Sufficient Reason for Breakup $B(SE)$	H2c: Agreement with Breakup $B(SE)$	H3b: Belief about Level of Influence $B(SE)$
Constant	2.94 (.24)***	36.45 (12.07)**	3.55 (.23)***
Step 1: Covariates			
Gender	.34 (.05)***	12.63 (2.64)***	-.19 (.05)***
Age	.001 (.003)	-.27 (.14)*	-.001 (.003)
Education	.01 (.07)	.73 (3.50)	.002 (.07)
Religion	.06 (.07)	4.96 (3.68)	-.15 (.07)*
Culture (Western/Indian)	.30 (.08)***	9.60 (3.78)*	.01 (.09)
R^2	.14	.06	.05
Step 2 and 3: Predictors			
Same/Different Culture	-	4.12 (2.63)	-.05 (.05)
R^2	-	.08	.05
R^2 change	-	.02	.003
Gender Role Ideology	-.11 (.05)*	-.50 (2.46)	-
Parental Influence on Mate Choice	-	-	-.02 (.04)
R^2	.17	.08	.05
R^2 change	.03	.02	.000

Notes.

1. *$p < .05$, ** $p < .01$, *** $p < .001$
2. For Hypotheses 2b and 2c gender role ideology was included in the model, and for Hypothesis 3b parental influence was included in the model.
3. Both religion and education were binary variables, coded such that 0 = 'No degree/religion' and 1 = 'Degree/religion'.
4. Hierarchical regression was conducted, with covariates included in the first step, culture included in the second step (for H2c and H3b) and gender role ideology or parental influence included in the final step.

breaking up, but this was not due to Western participants' less traditional gender role ideology. This finding could be deemed at odds with the previous finding that there was no difference between groups in identification with the person writing the description, but as the two items (one measuring identification and one measuring agreement with breakup reasons) are attempting to measure different concepts this is not necessarily true.

Parental Influence

The third set of hypotheses were related to parental influence over relationships. First H3a predicted that Indian participants would have higher levels of parental influence on mate choice than Western participants, and this was supported by the data, tested using the MANCOVA above (including Attitudes Toward Women), finding a significant difference ($F(1, 419) = 90.73$, $p < .001$), confirmed with a t-test with Bonferroni corrected alpha of .025 ($t(425) = 24.86$, $p < .001$). As with gender role ideology, above, this finding supports previous research (Buunk et al., 2010), including Study 1 of this thesis.

The second part of the hypothesis (H3b) stated that higher parental influence would predict belief that influence from others was sufficient or not enough, whilst lower parental influence would predict belief that the level of influence was too much. This was tested using regression analysis with the parental influence on mate choice scale mean score as the independent variable and opinion about the level of influence perceived from the breakup descriptions as the dependent variable. This prediction was not supported by the data, results in Table 3.6, suggesting that individual parental influence may be related more closely to one's own relationships than their perception of others'.

Lastly, Hypothesis 3c predicted that Westerners, or those low in parental influence, would believe that the influence in Indian descriptions was too much, whilst Indians, and those high in parental influence, would believe that the influence in Western descriptions was not enough. These predictions were not supported by the data, with neither same/different culture nor parental influence on mate choice, predicting beliefs about influence from others, results in Table 3.6.

As above, a mediation model (illustrated in Figure 3.2) using PROCESS was used to determine whether parental influence on mate choice mediated any association between participant culture and belief about influence, conducted on a dataset split by description culture. Results for Indian descriptions indicate no direct effect of participant culture on beliefs ($b = -.061$, $SE = .109$, $p = .580$), or indirect effect through parental influence on mate choice ($b = .161$, $SE = .092$, CI [-.036, .327]). For Western descriptions there was also no direct effect of participant culture on beliefs ($b = .107$, $SE = .120$, $p = .373$), or indirect effect through parental influence on mate choice ($b = -.046$, $SE = .103$, CI [-.245, .160]). These findings do not support predictions, suggesting that perhaps the attitudinal measure of parental influence and actual experience/interpretation of parental influence might differ, a suggestion which is supported by the lack of association between individual-level parental influence and influence described in Study 3a.

Traditionalism and Balance in Relationships

The final hypothesis concerned ratings of gender traditionalism and gender equality in descriptions. Participants were asked to rate how gender traditional and how balanced they believed the relationships in the descriptions to be, and it was predicted (H4) that both Indian and Western participants would rate Indian descriptions as more gender traditional and more unequal, than Western descriptions.

This hypothesis was tested using a 2 (Participant Culture) X 2 (Description Culture) MANCOVA, with participant and description culture as the independent variables and perceived traditionalism and balance within the relationships as the dependent variables. Results indicate that Indian descriptions were rated as more gender traditional than Western descriptions ($F(1, 423)=10.56$, $p = .001$), and there was no significant participant culture*description culture interaction ($F(1, 423)=1.03$, $p = .312$), suggesting that both groups rated descriptions similarly, so whilst the descriptions differed between Indian and Western groups (i.e. Indian descriptions contained more indicators of gender traditionalism), ratings from both Indian and Western participants were similar. For balance in relationships, however, Indian descriptions were more likely to be rated as unequal ($F(1,423)=8.22$, $p = .004$), but a significant interaction effect between participant and description culture ($F(1,423)=6.40$, $p = .012$) suggests that this effect is only true for Western participants, i.e. Western participants were more likely to rate Indian descriptions as unequal but there was no difference in ratings for Indian participants. In summary, Indian descriptions were rated as more traditional than were Western descriptions, and there was no difference between participant groups in these ratings, suggesting that both Western and Indian participants view Indian relationships as more gender role traditional. Indian descriptions were also rated as more unequal than were Western descriptions, however this effect was largely driven by differences in the ratings of Western participants (i.e. Westerners rated the two descriptions differently whilst Indians did not).

Some additional analysis, not pre-registered, was conducted to see if the perceptions of traditionalism and balance were different depending on gender. Results indicated that female participants rate descriptions as more gender traditional

($F_{(1,419)}$=3.38, p = .001), and less balanced ($F_{(1,419)}$=18.40, p < .001) than did male

participants. It should be noted, however, that participants only rated descriptions

written by people of the same gender to them, so findings should be interpreted with

caution. This might suggest that female descriptions contain more information about

traditionalism and experience of balance within a relationship, rather than that

perceptions necessarily differ.

Overall, the final part of this study has found some evidence that relationship

breakups are perceived similarly across cultures, with gender role ideology related to

perceptions of relationship breakups for both Indian and Western participants and

descriptions. Participants were no more likely to identify with breakups from their

own cultural group as from the other. Finally, Indian relationships are perceived as

more traditional and less balanced than are Western relationships, especially by

Western raters.

Study 3 General Discussion

This study has utilised a situation sampling approach (Morling et al., 2002) in

order to examine cultural similarities and differences in reasons given for relationship

breakups and the influence of others over these breakups, and then how perceptions of

these relationship breakups are related to gender role ideology and parental influence

on mate choice, and how these perceptions might differ between cultural groups.

Broadly, common themes emerged across cultural groups in reasons for relationship

breakups, and perceptions of breakups appear to be related to individual gender role

ideology but not parental influence. Findings are discussed in more detail below.

Gender Role Ideology

One of the key research questions this study aimed to answer was whether

gender-role related factors might play a part in relationship breakups, however no

participants in Study 3a mentioned factors related to gender roles. Past research has suggested that issues such as discrepancies in housework share (Ruppanner et al., 2018) or having traditional gender role ideology in a less traditional cultural context (Marshall, 2008) might result in relationship dissolution, but these factors were not explicitly mentioned by participants in this study. This could be because other factors, such as cheating, distance, or communication issues, are more salient and perhaps more easily recollected. When participants discussed miscommunication or arguments it could be that they were thinking about arguments to do with things such as housework, but there is no way to determine what participants were thinking of.

A number of other reasons for relationship breakups were determined, however, and there were similarities and differences between the cultural groups, as discussed above. Both Indian and Western participants cited trust issues, cheating, and interest in another person as a key reason for their breakup, and similar proportions also cited communication issues including arguments. Past research has suggested that as many as one in four people in the United States will engage in extramarital sex in their lifetime (Frisco et al., 2017), and this data suggests that this might also be the case in India. Another factor cited was lifestyle reasons, including distance, expectations of the relationship, and general differences in lifestyle. Whilst a large proportion of both Indian and Western groups cited these reasons, significantly more Western participants did, suggesting that perhaps differences in personality might be a bigger issue for these couples (or indeed that Indian participants may have been more likely to seek partners who were more similar to themselves). Another factor cited more by Western participants, and in fact not at all by Indian participants, was loss of romantic feelings. Although this might suggest that Indian participants' feelings for one another were more stable, it could also be that they are less likely to perceive a

change in feelings as a reason for relationship dissolution. Research has found that European American couples struggle to feel both love and a negative emotion such as jealousy, whilst (East) Asian American couples were able to feel positive and negative emotions simultaneously (Shiota et al., 2010), supporting this idea. Finally, Indian participants were more likely to report that family issues, such as backgrounds not matching, were a cause of their breakup. This will be discussed in more detail in the section on parental influence, below, but these spontaneous responses support past research suggesting that parents in more interdependent and collectivist societies have more influence over their children's mate choices (Buunk et al., 2010).

In Study 3b, participants (who did not write the breakup descriptions) were asked whether they believed the reasons given for breaking up were sufficient, and it was expected that participants would be more likely to agree with reasons from their own cultural group. This study failed to find evidence that participants were more likely to agree with the breakup reasons in descriptions from their own culture, which might be reflective of many of the reasons given for relationship breakups being similar between the two groups. Study 3b did find, however, that those with more traditional gender role ideology were less likely to think that the reason for the breakup was sufficient, suggesting that traditional ideology is related to lower belief that relationships ought to end perhaps due to the importance traditional ideology places on traditional family structures (Chen et al., 2009). This belief might in turn result in fewer relationship breakups in more traditional, typically non-Western cultures (it is impossible to measure prevalence with the sample from Study 3a as only those who had experienced a relationship breakup were recruited), and this may subsequently contribute to the much lower divorce rate observed in these cultures. Past research has identified that collectivist cultures tend to have less favourable

attitudes toward divorce than do individualistic cultures (Toth & Kemmelmeier, 2009), and this finding suggests that this might be as a result of traditional gender role ideology. This finding also offers support to the observations in Study 1 and Study 2 that individual-level factors appear to be stronger predictors of relationship related attitudes and outcomes than do country-level factors, although these associations need to be explored in more detail, especially in cases where country-level factors such as gender inequality and individual-level factors such as gender role ideology might be incongruent.

   Perceptions of Traditionalism and Balance. In order to fill the gap in Study 3a left by a lack of reasons, given in descriptions of breakups, related to gender role ideology, in Study 3b participants were asked to rate each of the descriptions they read for how gender role traditional and gender-balanced they believed them to be. It was expected that both Indian and Western participants would rate the Indian descriptions as more traditional and less equal; this was supported by the data for gender role traditionalism, however whilst Indian descriptions were more likely to be rated as unequal (in favour of the male partner) than Western descriptions this effect was largely driven by ratings from Western participants, suggesting a cultural difference in perception. The finding that Indian relationships and breakups were perceived as more gender role traditional is to be expected given that Indian participants tend to have more traditional gender role ideology, something that was observed in the current study as well as in much of the existing literature (Achyut et al., 2011; Bejanyan et al., 2014). As both Indian and Western participants rated Indian descriptions as more traditional it is possible that participants were paying attention to the influence from parents and family members described, as whilst this is not necessarily reflective of traditional gender roles, it is related to traditional family

norms (Buunk et al., 2010). There may also have been clues about gender roles and related factors, even if these were not explicitly discussed.

The difference in ratings of gender balance between Indian and Western participants, however, suggests that perceptions of equality within relationships might differ between cultures. Western participants rated Indian descriptions as more gender unequal than Western descriptions, perhaps because discussions surrounding gender equality are more frequent in Western media. For example, the 2018 change in legislation meaning that UK companies have to report their gender pay gap (BBC News, April 2018), may have made these ideas more salient for Western participants. That is not to say that discussions about gender equality are not included in Indian media, however; there is currently a lot in the media about India's rape culture and the detrimental effect this has on women (Simon-Kumar, 2014). Perhaps because the Indian discussion is focussed more on an extreme manifestation of gender inequality – sexual violence – more nuanced representations of issues of equality might not be as obvious. It should also be considered that the lens through which these studies are viewing balance might be ethnocentric, and whilst by Western norms the Indian relationships might seem unbalanced this is not necessarily the case by Indian norms, where women might have more perceived power in the domestic sphere.

Parental Influence

Next, these studies aimed to address cultural differences in influence from others over relationships and breakups, particularly from parents. Past research has shown that parents have more influence over the mating decisions of their offspring in more gender traditional, interdependent and collectivist cultures (Buunk et al., 2010; Talbani & Hasanali, 2002), and arranged marriages are more frequently practised in Indian contexts (Desai & Andrist, 2010). When asked directly, in Study 3a, about the

influence of their family in their own breakup, Indian participants were more likely than Westerners to agree that there had been some influence, and Western participants were more likely to say that there had either been no influence of that any influence had come from friends (often in the form of listening to them talk about their issues and come to a conclusion themselves). As noted above, several Indian participants also spontaneously mentioned family issues as a reason for their relationship breakup, without the question prompting them to think about family influence.

When asked, in Study 3b, about their perceptions of the amount of influence in each of the descriptions, no culture or attitudinal differences emerged. It had been expected that Indian descriptions would be perceived to have more influence than Western, and that those with individual higher levels of parental influence would be more likely to say that there was not enough influence in the descriptions, however these differences were not observed. This finding, at odds with the finding above that Indian relationship breakups do involve more parental influence than Western breakups, suggests that the function of parental influence might be reserved to one's own individual relationships and those with their family or ingroup, rather than their perceptions of other people's relationships.

Impact on Wellbeing

The third, and final, research question in Study 3a centred around the impact of relationship breakups on subjective wellbeing. Analysis failed to uncover any associations between the duration of the relationship or the time since the breakup, nor between whose decision or fault the breakup was, on wellbeing of participants. This could be because participants were describing relationships that had broken up some time ago, rather than, for example, in the last month. Almost half of participants also reported that they were currently in a new relationship, which may further impact

wellbeing (Imhoff & Banse, 2011). As discussed above, many participants had broken up with their partner over six months ago and/or were currently in a new relationship, and these factors may have contributed to the lack of impact observed.

Identification

As well as a lack of findings about the impact of breakups on wellbeing in Study 3a, Study 3b found that participants were no more likely to identify with someone from their own culture as the other culture. It was predicted that participants would be more likely to identify with descriptions from their own cultural group, as research suggests that individuals are more likely to assume similarity with those from their ingroup rather than outgroup (Holtz & Miller, 1985). Participants in Study 3b, however, were equally likely to identify with each of the cultural groups. This finding could suggest that perceptions of the descriptions did not significantly vary between the cultural groups, although findings described above suggest that they do, at least in some ways. It could also be that past research on identification has focused on explicit in-group/out-group identification, whereas here participants did not know if the descriptions were written by someone from their own culture or not. In fact, when asked if they thought the descriptions were written by someone from the same culture as them or not, less than a fifth correctly identified that they were not.

Limitations and Further Research Directions

A strength of this study is that it successfully utilised the situation sampling method (Morling et al., 2002) to answer two key questions: are relationship breakups similar or different between cultures, and are subsequent perceptions of these breakups similar or different? Situation sampling is the ideal method to use for research such as this, as it enables researchers to determine not only whether there are similarities and differences between groups, but also whether culture might influence

perceptions. For example, although the reasons given for breakups tended to be quite similar between Western and Indian groups, it was also observed that perceptions of these breakups differed based on individual gender role ideology.

However, one limitation of this research, in Study 3a in particular, is that the nature of data collection did not allow for researchers to seek more detailed responses from participants. Employing a more qualitative approach like structured interviews, such as those used by Simon (1995) in her work on gender and family roles, would have enabled researchers to ask follow-up questions and more accurately determine things such as the level of influence participants experienced in their relationships. The free text response questionnaire included here, however, is an established way of collecting qualitative data that has been used by a number of researchers (Bussolari et al., 2019; Imada & Yussen, 2012), enabling data to be collected from larger groups across different cultural contexts more easily and efficiently. Future research could conduct a smaller number of interviews with participants from Western and Indian contexts, perhaps asking questions focussed on gender role traditionalism and the strain this may place on relationships.

Many of the breakups described in Study 3a were relatively short-term (only 10% of participants had been married or engaged, and the majority of relationships lasted less than two years), and studying more established relationships and marriage breakdowns might uncover more cultural differences. Couples with children, for example, might cite very different reasons for breaking up, and in turn these reasons might be perceived differently. Recruiting participants for this type of research would be difficult, however, especially as the rate of divorce in India is low as 2% (Dommaraju, 2016).

Practical Implications

The findings of this research have important practical implications, and could be used to inform policy surrounding relationships and their dissolution, as well as in the context of relationship therapy. It is important that relationship therapy takes into account differences between individuals and cultural groups, and this study shows that some relationship problems are more common in Western (loss of romantic feelings) or Indian (family issues) contexts. The role of parental influence in relationships and breakups should also be considered, as for those from Indian backgrounds family plays an important role in relationship functioning.

Conclusion

The present study aimed to explore reasons for relationship breakups, the ways in which gender roles might be involved, and whether there are similarities and differences between cultural groups in both reasons for breaking up and perceptions of these breakups. Study 3a identified a number of factors that appear to be related to breakups in India and two Western countries (the UK and US), including adultery and communication issues, and some that are more prevalent in each group, for example lifestyle differences in Western relationships and family issues in Indian relationships. In Study 3b gender role ideology was found to be related to beliefs about whether the relationship ought to have ended, with more traditional participants less likely to agree. Individual parental influence was not related to perceptions of others' breakups, suggesting that this attitude primarily impacts one's own relationships. Finally, Indian relationship breakups were rated as more gender role traditional and less gender balanced than were Western relationships.

The existing literature on relationship breakups is extensive, but this study aimed to expand on this work by exploring reasons for breakups across two cultural

groups. By comparing Western and Indian stories this study has identified similarities and differences in reasons for breakups and influence from others, as well as linking these factors to gender role ideology, which should be useful for practitioners worldwide.

Overall Discussion

These three studies have examined gender inequality, gender role ideology, and related concepts such as sexism and parental influence on mate choice, and how they influence and impact romantic relationships across cultures. Findings suggest that there are broad cultural differences in individual attitudes. For example, those from non-Western countries tend to have more traditional gender role ideology and higher levels of parental influence on mate choice than those from Western countries, but the way these attitudes function in relationships appears to be largely stable across cultural groups. First, in the formation of relationships, parental influence and benevolent sexism were related to gender role ideology in marriage, and these were subsequently associated with relationship longevity in the early stages. Next, individual-level traditional gender role ideology, but not country-level gender inequality, was related to a more traditional division of household labour, such that female partners did more childcare and housework than their male spouse/partner. Lastly, reasons for relationship breakups were largely similar across groups, with the notable exception of more parental influence in Indian relationships, and perceptions of these relationships were more closely associated with individual-level attitudes such as traditional gender role ideology than they were with culture.

Gender Role Ideology

Cultural differences in gender role ideology were observed across all three studies, with Study 1 finding that Indian participants had the most traditional ideology, followed by Brazilian participants, and then those from the US and the UK. Similarly, in Study 3 Indian participants were found to have more traditional gender role ideology than those from the US and the UK. Moreover, Study 2 compared individual-level gender role ideology and country-level gender inequality, observing a

correlation such that individuals in more gender unequal countries (such as India) were more likely to hold more traditional beliefs than those in more gender-equal countries (such as the UK). These findings corroborate past research about gender role ideology and related factors (Bejanyan et al., 2014; Boehnke, 2011; Buunk et al., 2010; Glick et al., 2000) and provide a unique insight into the placement of Brazil on this continuum, as previous comparative research tends to focus on East Asian and Western groups (Ahrold & Meston, 2010; Mori et al., 1995). When, in Study 3, participants were asked to rate descriptions of others' relationships for their gender role traditionalism and the level of gender balance, Indian descriptions were consistently rated as more traditional and less balanced than were Western relationships, suggesting that not only are individual-level attitudes more traditional in India but others' also perceive these relationships as more traditional. This finding could be related to the large cultural differences in relationship structure between Western and Indian relationships, with Indian relationships more likely to have parental involvement (as observed in Study 3) and include the combining of two families rather than two individuals (Desai & Andrist, 2010; Dhar, 2013).

Study 1 was also able to combine different related variables into one model, showing that for all four cultural groups (the UK, US, India and Brazil) higher levels of interdependence predicted more traditional gender role ideology, and this association was through higher levels of parental influence on mate choice and benevolent sexism. This suggests that traditional gender role ideology may be a function of other traditional attitudes, here parental influence and benevolent sexism. The associations between variables were strongest for the Indian group, who also had the highest levels of interdependence (i.e. connectedness with others, especially family members): it would therefore be worthwhile testing the model in another

culture with typically high levels of interdependence, for example China (Markus &

Kitayama, 1991). It is also worth noting that each of the factors in the model for Study

1 were related to one another, meaning that another configuration of the model[18], such

as gender role ideology predicted parental influence on mate choice (for example

those with traditional ideology might seek more parental involvement in their

relationships), might be possible and should be considered in future research.

Turning now to the functions of gender role ideology in romantic

relationships, in Study 2 traditional gender role ideology predicted the share of

childcare through expectations about the share of childcare, such that those with more

traditional ideology tended to be in relationships where the female partner did the

majority of the childcare. Gender role ideology also predicted share of housework,

following the same pattern such that traditional ideology predicted traditional shares

of housework with the female partner doing more. These findings support past

research which has observed gender differences related to gender role ideology in the

division of childcare (Gaunt, 2006; Evertsson, 2014), and housework (Kan & Laurie,

2016; Nitsche & Grunow, 2016). Study 2 failed to observe an effect of country-level

gender inequality on the division of household tasks, however, suggesting that

individual-level gender role ideology might be a stronger predictor and that there are

large variations in individual gender role ideology within each country. This finding

was not expected, especially as some research suggests that societal-level context has

a stronger impact on young people's views than does their home environment

(Mavrokonstantis, 2015), however this illustrates the importance of considering both

country- and individual-level factors together. Whilst this study only compared

partners' hours of housework, other research has found that in countries with higher

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[18] Details of additional models are available in the Appendix.

level of gender equality, such as Norway and Great Britain, fewer housework hours are completed in general, by both men and women, than in less gender equal countries such as Slovenia and Croatia (Treas & Tai, 2016). This finding highlights the importance of country or societal context, suggesting that those in more gender equal countries might be more likely to outsource household tasks or rely on domestic machines more than those in gender unequal countries: washing machine ownership, for example, is estimated at 97% of households in the UK and 17.3% of households in India (Rao & Ummel, 2017).

Gender role ideology also has an impact on relationship breakups. Although Study 3 failed to uncover any explicit descriptions of gender-related reasons for relationship dissolution it is possible that these were either not the most salient reasons for participants (adultery, for example, is likely a more prominent memory), or have been obscured in other reasons such as arguments and miscommunication (as without in-depth interviewing we are unable to determine what these arguments were about). It also appears that traditional ideology is related to a desire to stay in a relationship and beliefs that relationships should not be dissolved. In Study 1 those with more traditional gender role ideology were more likely to enter into a new relationship, especially if they were from non-Western cultures, or remain in a relationship compared with those with less traditional ideology, and in Study 3 those with traditional gender role ideology were less likely to think that the reason given for a breakup was sufficient. These findings suggest that one factor of traditional gender role ideology might be the importance placed on traditional family structures and consistently having a romantic partner (Eastwick et al., 2006; Chen et al., 2009). They also suggest that those with traditional ideology might be less inclined to think people should have different partners across their lifetime (evidenced by the perception that

relationships should not have broken up), which may be related to traditional values surrounding the sanctity of marriage and, in evolutionary terms, the importance placed on female chastity to ensure paternity certainty (Buss, 1989).

Overall, these three studies have shown gender role ideology to be important across the course of relationships. There is evidence for differences between countries in their levels of traditional ideology, with non-Western countries likely to hold more traditional gender role ideology than Western, and whilst this is related to country-level gender inequality it appears that individual-level ideology is a stronger predictor, than country, of traditional actions such as higher female share of household labour and likelihood of remaining in a relationship.

Parental Influence

The importance of finding a partner and maintaining a romantic relationship is also affected across cultures by varying levels of parental influence. Across Studies 1 and 3 it was found that those from non-Western countries (Brazil and India in Study 1; India in Study 3) reported higher levels of parental influence on mate choice than did those from Western cultures (the UK and US). As described above, parental influence on mate choice is related to gender role ideology, such that increased family connectedness (interdependence) is associated with both more traditional gender role ideology and higher levels of parental influence on mate choice. The association between interdependence and parental influence on mate choice, in particular, is to be expected, given the importance both place on family relationships and maintaining harmony with one's ingroup. India, which had the highest parental influence on mate choice across studies, is characterised by strong family bonds and a culture of arranged marriages joining not just two individuals but two families together (Desai & Andrist, 2010; Dhar, 2013).

Parental influence on mate choice is primarily concerned with the initial stages of relationships, including dating and finding a new partner, and in Study 1 higher parental influence was associated with higher likelihood of staying in or entering into a new relationship in all four countries (the UK, US, India and Brazil). For Western (UK and US) participants, separately, however, higher parental influence was also related to increased likelihood of breaking up, potentially due to a mismatch between individual-level attitudes and wider cultural values (Marshall, 2008): to be high in parental influence in a country like the UK that does not place importance on family approval (arranged marriages are not commonplace in the Western world, with the exception of in migrant communities; Penn, 2010) might cause issues within relationships, especially if the other partner does not have similar attitudes (Oláh & Gahler, 2012).

In Study 3a this observation about the impact of parental influence on relationship breakups was extended, with participants asked to describe the influence others had over their relationship and subsequent breakup. Indian participants were more likely to cite that others had influenced their breakup than were Western participants, and they were also more likely to spontaneously mention family issues such as background or caste differences in their descriptions of their breakups. Moreover, in Study 3b other participants were asked about their perceptions of these relationship breakups and the level of influence within them (i.e. '*What do you think about the level of influence from other people (e.g. family, parents, friends) in this description?*'), however findings suggest that individual levels of parental influence on mate choice did not predict these perceptions. It could be that individual parental influence relates more strongly to individuals' own relationships rather than to their perceptions of relationships in general, for example through either influencing or

accepting influence from one's own family members rather than forming opinions about outgroup members' relationships. It might also be possible that parental influence is related more closely to the amount of influence an individual expects to have on their children rather than the influence a child expects from their parents, although this influence would then have a downstream impact on children's attitudes once they become parents themselves.

Although parental influence on relationships was not measured in Study 2 research has shown that children's attitudes and behaviours are often influenced by what they observe their parents doing at home, for example men whose mothers worked when they were children had less traditional gender role ideology and were more likely to participate in housework than men whose mothers stayed home (McGinn et al., 2015). This finding helps to explain the ways in which attitudes and behaviours might be transmitted across generations: through observation of parents (McGinn et al., 2015); specific cultural or religious practices such as arranged marriage (Desai & Andrist, 2010); and policy differences such as shared parental leave encouraging more fathers into the home sphere (Karu & Tremblay, 2018). Parental influence is important across all areas of life and relationships, including modelling healthy relationships for children.

Life Outcomes and Relationship Longevity

As well as examining the impact of gender role ideology and parental influence on relationships, these studies looked at life outcomes including subjective wellbeing, subjective health, and relationship satisfaction, and how these might be related to and impacted at different stages of relationships. Past research shows the value of relationships for wellbeing across cultures (Diener et al., 2000), but does this translate across the course of relationships?

Study 2 explored whether discrepancies between actual and expected division of household tasks (that is, actually doing more or less than one anticipated) affected subjective wellbeing and subjective health. Discrepancies in the amount of childcare or housework had no effect on subjective health, however there were effects on subjective wellbeing such that doing more than expected was related to increased wellbeing. This finding was gendered such that the effect was stronger for women than for men. The directions of these findings were not expected, as past research suggests that higher household work hours and uneven divisions of labour are related to lower satisfaction (Bird, 1999; Ruppanner et al., 2018). It could be, however, that spending more time with children and on household tasks enables women to feel that they are fulfilling their multiple roles well, thus reducing work-family conflict and guilt (Simon, 1995).

Turning to relationship breakups, Study 1 found that subjective wellbeing and relationship satisfaction did not predict relationship change, perhaps because the short duration of these early stage relationships, and the low numbers of participants who experienced relationship change, did not allow any large effects to become apparent. Study 3 looked at the impact of relationship breakups on subjective wellbeing, finding no effect of relationship duration, time since breakup, or which partners' decision or fault the breakup was. Although past research suggests that there are protective effects of being in a relationship on wellbeing (Kim & McKenry, 2002), these effects are likely only present in high quality relationships (Holt-Lunstad et al., 2008), and it is unlikely that the relationships described in Study 3 were of a very high quality considering their fate. It is also possible that, as many participants had not recently broken up with their partners, or had new partners by the time of the study, any

immediate impact on their subjective wellbeing had dissipated (Field et al., 2009; Imhoff & Banse, 2011).

The lack of findings regarding relationships and their associations with subjective wellbeing could be due to other factors. These studies all used measures of wellbeing which combine different aspects, e.g. satisfaction with life in general and family life, but some research suggests that effects might be different across different domains, for example whilst mothers report higher subjective wellbeing in general during time with their children, this involves both lower happiness and increased meaning in life (Musick et al., 2016). Recent research has also identified differences in subjective wellbeing and relationship changes across domains including tenure (homeowners experienced a greater decline in wellbeing than tenants following divorce; André, Dewilde & Muffels, 2019), housing-related financial issues such as mortgage or rent arrears (Coulter & Thomas, 2019), and personality (Boertien & Mortelmans, 2018), and these factors should also be considered in future research.

Cultural Differences

One of the key aims of these studies was to identify differences, or similarities, between Western and non-Western cultures in the sphere of relationships, and examine how gender-related attitudes might impact these. As described above, clear cultural differences in attitudes emerged across the three studies. Those from non-Western countries (including India and Brazil) had more traditional gender role ideology, and higher levels of parental influence on mate choice and benevolent sexism, than those from Western countries (such as the UK and US). In terms of gender role ideology this was also related to country-level gender inequality (associations between country-level inequality and parental influence on mate choice could not be tested due to the small number of countries included in Studies 1 and 3),

supporting past research by finding that individuals in more unequal countries tended to have more traditional gender role ideology (Boehnke, 2011). Attitudinal stability was observed between the three months of data collection in Study 1, suggesting that these gender-related attitudes are fairly stable. Further research across longer timeframes would be needed to confirm this finding, however.

Although attitudes differ between cultural groups, as do some associations between attitudes and relationship factors such as relationship longevity (for example higher levels of parental influence were related to likelihood of staying in a relationship except in Western groups where higher levels of parental influence were related to likelihood of breaking up), the majority of the associations uncovered were broadly similar across groups. Study 2 showed that share of household tasks, for example, was related to individual-level gender role ideology but not country-level gender inequality (although the association between traditional gender role ideology and expectation of a traditional share of housework appeared to be stronger in countries with lower levels of gender inequality). Likewise, in Study 3 the reasons given for relationship breakups were often similar between groups, and individual attitudes rather than the culture being described tended to have a stronger effect on perceptions of these descriptions.

These findings support past research that has observed cultural differences along these dimensions (Brandt, 2011; Buunk et al., 2010; Olson et al., 2007), as well as indicating some universality in the functions of these attitudes. This suggests that whilst the underlying mechanisms relating attitudes to one another, and to behaviours, are similar, there are cultural level influences on these attitudes. These influences, as discussed in previous sections, are diverse: ranging from transmission across generations and observations of parental behaviour (Jan & Janssens, 1998; McGinn et

al., 2015); cultural and religious practices such as arranged marriage (Desai &

Andrist, 2010); to societal level changes such as policy context (Sjöberg, 2004).

The associations between individual-level attitudes and country-level

inequality were also observed in Study 2, finding that individual-level gender role

ideology as a stronger predictor of share of household tasks and subsequent life

outcomes than country-level gender inequality. These findings warrant further

analysis into the associations between these factors, particularly as previous research,

including these studies, has uncovered correlations between inequality and ideology

but are yet to establish a causal relationship or indeed direction.

Gender Differences

One unexpected finding in Studies 1 and 3 was the lack of gender differences

in attitudes. Past research has consistently observed gender differences across the

measures used (Brandt, 2011; Olson et al., 2007), and Study 2 upheld this finding,

observing that men had more traditional gender role ideology than did women. In

Study 1, however, gender differences were observed in benevolent sexism, sense of

power, gender role ideology, and parental influence on mate choice (such that men

had more traditional or higher levels of each), but these differences became non-

significant once country was added, and there were no interaction effects with

country, suggesting that between-country differences are stronger than gender

differences (i.e. non-Western participants in general have more traditional attitudes

than do men across countries). In Study 3 no gender differences were observed across

measures, however there was an interaction effect with culture such that Indian

women actually reported more traditional gender role ideology than did Indian men.

This finding is unexpected as in general men have more traditional attitudes than do

women (Achyut et al., 2011; Brandt, 2011). The Study 2 data comes from samples

that are nationally representative, and it is therefore possible that there is something unique about the data collected for Studies 1 and 3. The majority of data in each of these samples was collected via Amazon's Mechanical Turk where workers are generally younger than the general population (Ipeirotis, 2016: and in Studies 1 and 3 of this thesis the majority of participants were in their twenties or thirties, whereas those in Study 2 were from a wider age range).

Power. Past research into power suggests that men have more power in their relationships, for example over making decisions (Conry-Murray, 2009), and that men have a greater personal sense of power especially in relationships (Meyers-Levy & Loken, 2015). This power differential would be expected in traditional relationships and cultures, whereby roles dictate that women are expected to be submissive to their husbands or partners (Chen et al., 2009).

After Study 1 failed to find a gender difference in sense of power, further analysis of power was included in Study 2. The rationale here was that the large dataset used for Study 2 should enable the detection of a true gender difference if one exists, or alternately a lack thereof. The two measures of power in Study 2 related to power over decisions about raising children and power over choosing weekend activities. Gender differences were observed in both; however, these were such that male participants were more likely to say that they had the power over decisions and female participants were more likely to say that they had the power (i.e. participants said that they themselves held the power), suggesting equal levels of sense of power between men and women. The two items pertaining to power in Study 2 focussed on two specific areas of decision making – raising children and choosing weekend activities – and it is possible that male partners may hold more power over other decisions, such as about finances (Meyers-Levy & Loken, 2015) or division of

household labour (Hiller & Philliber, 1986). It is also worth noting that for these measures the majority of participants chose a middle 'equal/shared' power option, suggesting that at least in the realm of family and relationships men and women have roughly equal power.

Whilst Study 3 did not directly measure power, participants were asked about their perceptions of balance in the relationship descriptions they read. Findings here indicated that Indian relationships were rated as less balanced (more in favour of the male partner: a useful proxy for male power, though results should be interpreted with caution) than were Western relationships, suggesting that raters may have perceived more male power in Indian relationships. There was, however, an effect of rater culture here, such that Westerners were more likely to rate Indian relationships as less balanced than Western relationships, whilst Indian raters perceived both the same. This effect might be due to cultural differences in the meaning of power and balance: for example in Indian couples, both partners may be deemed to have similar levels of power but in different domains, with the male partner having power over financial decisions whilst the female partner has power over running the household. This interpretation could be extended to the other findings across these studies, and is supported by the data in Study 2 suggesting that individuals often perceive themselves as having equal power as their spouse.

Limitations and Further Research Directions

As with any research, these studies have both strengths and limitations. Cross-cultural research can be difficult, especially for a single researcher attempting to collect data from multiple groups. Using large international datasets, as demonstrated here in Study 2, is one way to overcome this issue, although secondary analysis in

itself poses issues such as limited variables and items not specifically related to research questions.

The attrition rate for Study 1b was high, resulting in a smaller sample size than optimal (although still within the recommended range; Lakens & Evers, 2014), and although Study 1a oversampled in an attempt to control for this (the proposed number of participants per group was 95 and the final sample was 105+ in each group), future research should attempt to recruit a higher number of participants, or use a method such as panel research whereby follow-up participation is more likely. The sample size in Study 3a was also smaller than optimal, especially for female Indian participants, although this is likely a flaw with the recruitment strategies used (Amazon's Mechanical Turk is known for having large numbers of male workers; Ipeirotis, 2010).

The majority of the methodology used here was quantitative in nature, with the exception of the open-ended questions used in Study 3a. Future research could further utilise this mixed methods approach, in particular using qualitative methods such as interviews to gain a more in-depth understanding of some of the issues uncovered. Research by Simon (1995), on working mothers and their multiple roles, has successfully used interview methods to explore the role strain women feel and how this impacts their family and work lives.

Another methodology that could have been utilised in these studies is dyadic research. Using dyads to study couples could have been used to improve findings across all stages of this thesis: asking both members of a newly formed couple could enable testing of whether congruent gender role ideologies and other attitudes predict relationship stability collecting information about household work from cohabiting couples would enable comparisons of perceptions of division of labour; and asking

both partners in a recently dissolved couple would give a more rounded idea of the factors involved in relationship breakups. Including the attitudes of both members of a couple could give an interesting view of relationships, for example past research has found that incongruency between partners' attitudes might be a stronger predictor of relationship problems than more or less traditional attitudes (Minnotte et al., 2010; Oláh & Gahler, 2012), and relationship assessments from both partners were a better predictor of relationship stability than assessments from just one partner (Attridge, Berscheid & Simpson, 1995). Similarly, recent research has found that a shared egalitarian ideology is required between couples for there to be an equal gender division of domestic tasks including household, childcare, and adult care (McMunn, Bird, Webb & Sacker, 2019). Dyadic research, however, is time-consuming and can be costly. Oversampling is required in order to get both partners to complete the research, and this would be especially difficult in harder to reach groups, for example the sampling of individuals in Brazil proved to be more difficult than anticipated, so sampling couples would not have been possible.

Moving on from methodological changes, future research should also endeavour to answer questions left open and inspired by these findings. Research suggests that gender role ideology may be socially learned, passing from parents to children and influenced by societal context (Dasgupta, 1998; Sjöberg, 2004), but how does this transmission of attitudes occur? Do romantic relationships play a role in this, for example if one partner is more dominant does the other partner's ideology converge with theirs? Next, how does moving to a new culture impact attitudes, and does this differ between men and women? Those from typically traditional cultures who have moved to less traditional cultures tend to have less traditional ideology than those who remained in the heritage culture (Hojat et al., 1999), but how does this

impact men and women? What are the potential effects of moving to a new culture on relationship stability, especially if one partners' attitudes adapt more rapidly to the host culture?

Although two of the studies included here failed to observe gender differences, supporting one another in this unexpected finding, this is still an unlikely finding given the wealth of existing research in this area (Achyut et al., 2011; Brandt, 2011; Olson et al., 2007). It would be useful, therefore, for future research to continue to look at gender differences in gender role ideology and other attitudes, with larger samples and across many cultural groups. Longitudinal research, or cross-sectional studies comparing different timeframes, would also enable researchers to observe whether gender differences have in fact converged over time.

Practical and Theoretical Implications

These findings have theoretical implications for future research into relationships, and practical implications for policymakers and practitioners. Theoretically, these studies show that relationships appear to function in similar ways across cultures, and that it is important to consider individual-level attitudes as well as the country-level context in the study of relationships and other areas across cultures. This theoretical contribution is especially timely, given some research in this area is currently focussing on country-level data such as gender inequality scores and overall workforce participation (Ruppanner, 2010), and other research suggests that societal environment might have a stronger effect on the ideology of young people than do family norms (Mavrokonstantis, 2015). Whilst past research has shown an association between country-level gender inequality and traditional ideology (Sjöberg, 2004), the causal direction remains unclear (i.e. whether individual attitudes drive country-level equality or country-level change results in less traditional attitudes), and whilst the

current research suggests no effect of country-level gender inequality it could be that

the effects of change have not yet become apparent, and it is therefore important for

researchers to continue to consider the impact of both country- and individual-level

factors.

Practically, these studies show the importance of considering individual and

cultural differences in attitudes for practitioners and policymakers. For relationship

therapists, for example, an awareness of different levels of parental influence on mate

choice is important when treating couples, especially those from non-Western

backgrounds, as the opinions of family members and parents are particularly

important in these contexts. In terms of designing policies, policymakers should be

aware of differing attitudes such as traditional gender role ideology and how this

relates to family context (e.g. prevalent belief that women ought to stay home with

children) when implementing policies to facilitate increased access for women into

the workforce.

Contribution

These studies have aimed to expand our knowledge of gender inequality and

gender role ideology and how they function in the domain of romantic relationships

by examining cultural differences and similarities. Comparing typically traditional

countries with high levels of gender inequality with countries that tend to be less

traditional and have increased gender equality, we are able to see that often the pattern

of attitudes is similar across groups, although there are strong individual differences

in the level of these attitudes (e.g. Indian participants tended to be more traditional).

As discussed above, gender-related attitudes are prevalent across the course of

relationships, and there are a number of different ways in which these attitudes might

be transmitted across generations, through choosing like-minded partners, displaying

behaviours such as share of household tasks to children, and through accepting parental involvement in relationship breakups.

A number of different methodologies have been utilised across these studies, from longitudinal data, secondary analysis of large international datasets, and situation sampling. A variety of analytic strategies have also been employed, from structural equation modelling and multilevel modelling to qualitative coding. These methodologies and analyses were chosen to fit the specific research questions and data they were used with, in order to appropriately answer questions and examine the cultural influences on gender inequality and gender role ideology in relationships.

Conclusion

Relationships are an important part of lives around the world, and these studies have shown some of the ways in which gender inequality, gender role ideology, and related attitudes function in them. Traditional gender role ideology is related to more traditional share of childcare and housework, increased likelihood of entering into or staying in a relationship, and perceptions of reasons for relationship breakups is not sufficient (i.e. belief that the relationship should not have ended for that reason). Indian relationships were also rated as more traditional than were Western relationships. Higher levels of parental influence on mate choice are related to more traditional gender role ideology, increased likelihood of entering into or staying in a relationship (although also related to likelihood of breaking up in contexts where parental influence is not commonplace), and Indian participants were more likely to cite family issues as a reason for breaking up. In terms of life outcomes, subjective wellbeing and relationship satisfaction did not predict likelihood of relationship change, nor did breakups appear to affect subjective wellbeing. Doing more housework and childcare than anticipated was related to higher subjective

wellbeing, especially for women, suggesting that feeling able to balance multiple

roles both inside and outside the home might be beneficial. Together these studies

show the impact of gender role ideology across the course of relationships, and more

often than not suggest that there are broad cultural similarities in the functions of

these attitudes, rather than differences. Whilst there are some differences, for example

parental influence in Indian relationships, broadly speaking the way that our

relationships function, and the wellbeing we derive from them, is much the same.

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Appendix

Alternative Models for Study 1

Table A1. *Results for testing of alternative models*

| | Test Statistic | | | | Difference |
	χ^2	CFI	RMSEA [95% CI]	SRMR	from Model 1
Model 1	$\chi^2(94) = 32.23$, $p < .001$	.97	.07, [.06, .08]	.07	-
Model 2	$\chi^2(59) = 189.19, p < .001$	.98	.07, [.06, .08]	.04	$\chi^2(35) = 137.04, p < .001$
Model 3	$\chi^2(94) = 326.23, p < .001$	.97	.07, [.06, .08]	.07	$\chi^2(1) = .001, p = .974$
Model 4	$\chi^2(5) = 101.43$, $p < .001$	.91	.20, [.17, .23]	.07	$\chi^2(89) = 224.80, p < .001$

Notes.
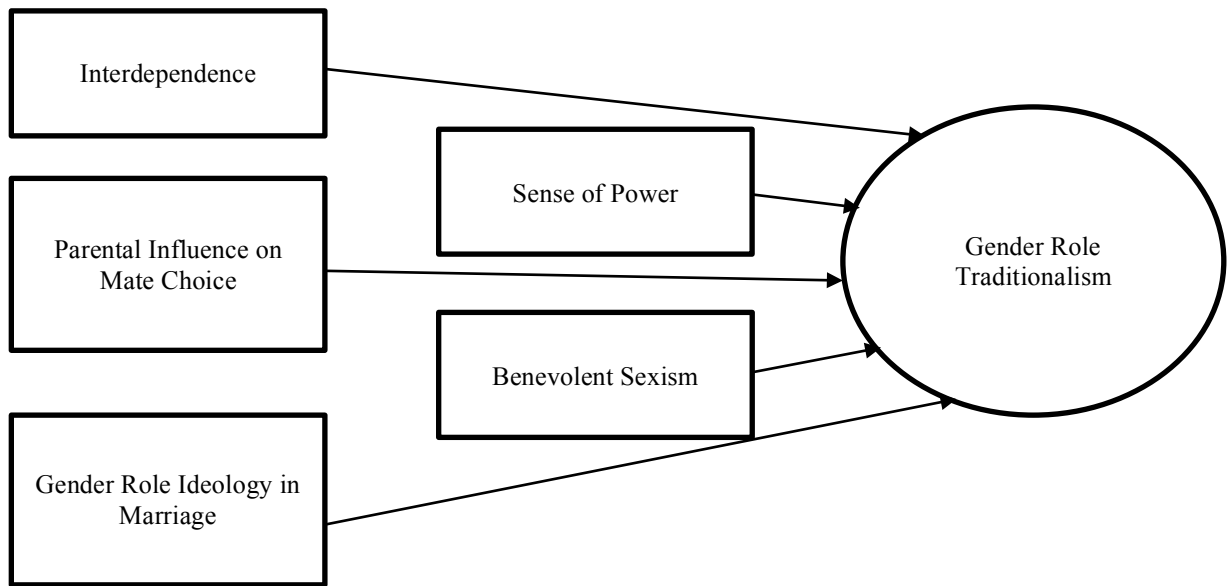1. *Figures for each of the models are depicted below.*
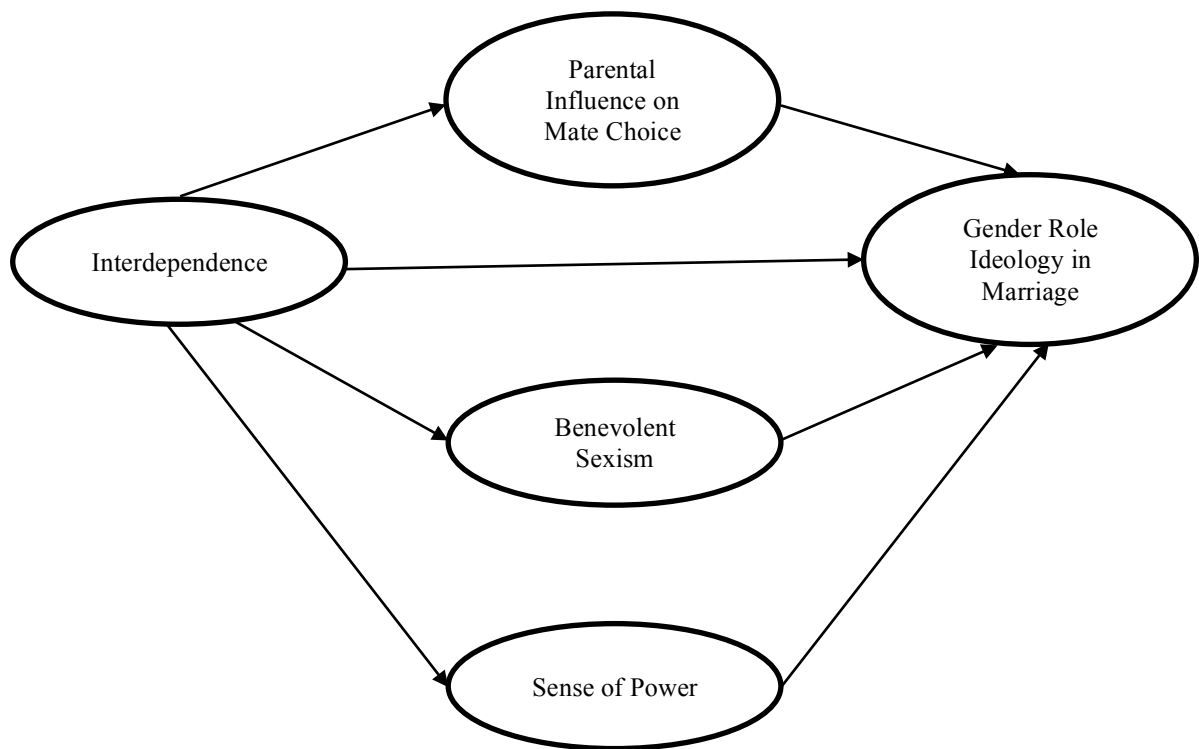
Model 1: Original Theorised Model
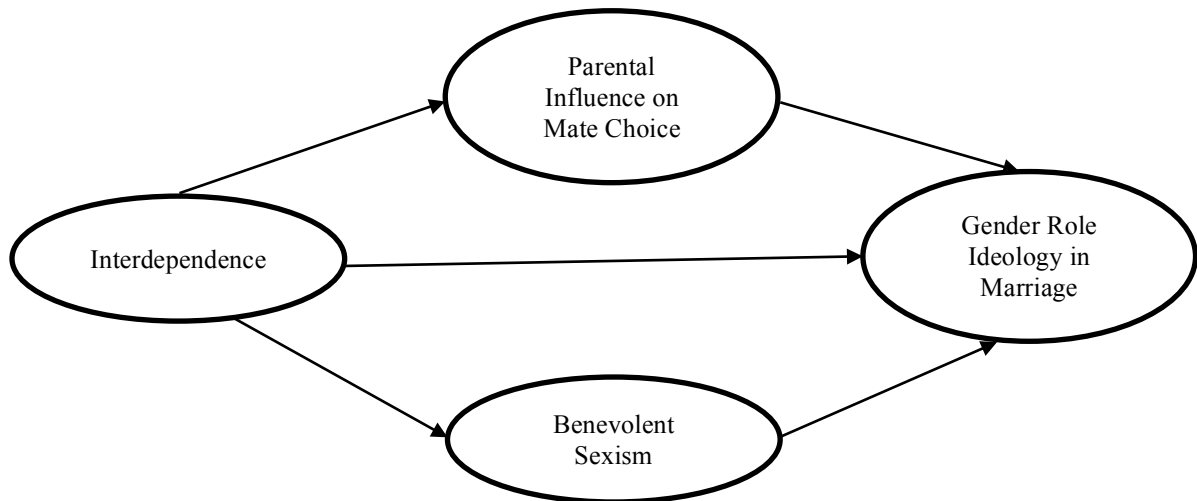
Model 2: Theorised Model without Sense of Power
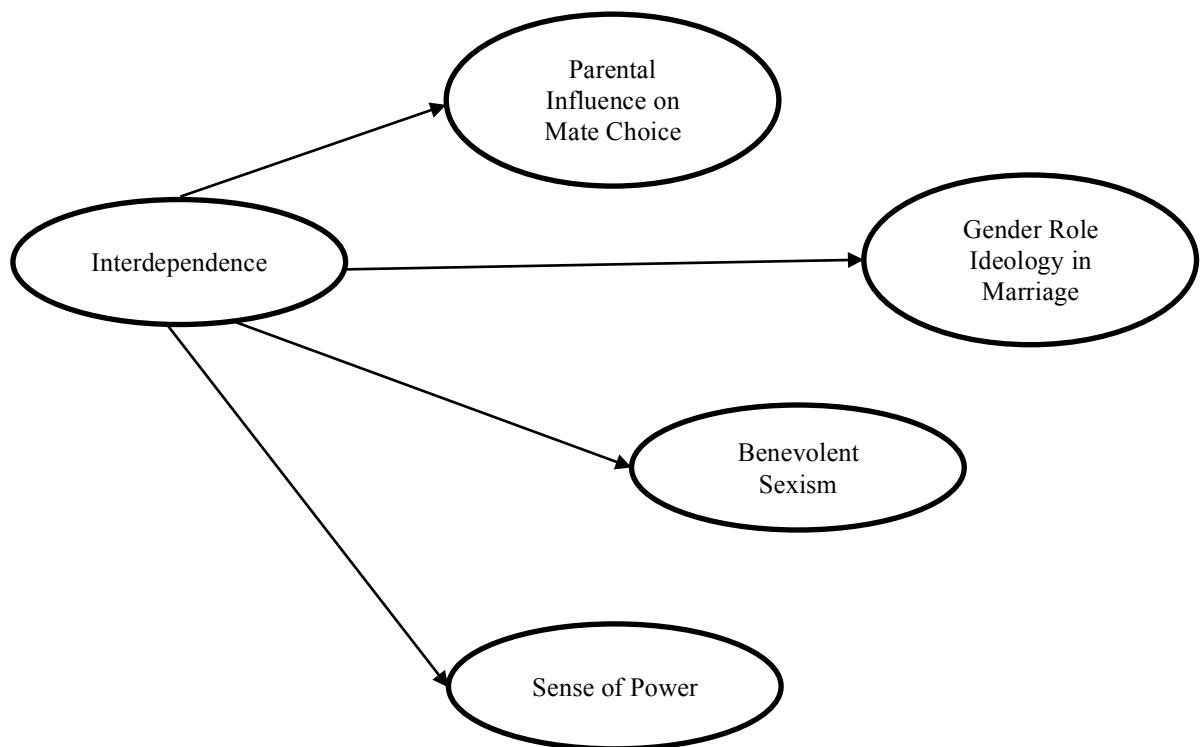
Model 3: Interdependence predicting 4 Gender-related Attitudes (no mediators)

Model 4: Predicting Gender Role Traditionalism

Example Descriptions for Study 3b

In a previous study we asked people to write about their most recent breakup. The descriptions described below are from that study and focus on relationship breakups between heterosexual (one man and one woman) couples. We would like you to read the descriptions carefully and try to put yourself in the position of the people described. You will then be asked a series of questions about the person in the description.

[*It was my decision to end the relationship. We had gotten to a point where I was the only one putting in effort. He later revealed to me that he had stopped liking me after we started seriously dating. It seems like he was just in it for the chase and once he had me, he got bored. There was no influence [from parents/family/friends].* Western Female]

[*Me and my partner always had conflict with each other on financial issues. I was not satisfied with the spending habits of my partner. So I decided to end the relationship. They [parents/family/friends] did not have any influence and the decision was our own.* Indian Female]

[*We gradually fell out of love and my partner was stressed and wanted to go travelling. There was a slight influence [from parents/family/friends], in terms of encouraging her to do her own thing and her seeing other people, travelling etc.* Western Male]

[*This decision was made by my partner due to family conflict. I never agreed to end the relationship but my partner wanted to end it since their family members didn't want our relationship to continue. Plenty of influence on my partner. Parents and family members caused our relationship to break up.* Indian Male]