

ABSTRACT

The aim of this research was to explore whether a model including psychological predictors at the individual, interpersonal and cultural level could predict romantic attitudes. Attachment style, cultural orientation, gender, and relationship length were tested as predictors for each of the six love styles conceptualized by Lee (1977). Adults from Britain (N=56) and Hong Kong (N=52) who were in a romantic relationship completed four self-report measures; a demographic questionnaire, The Individualism and Collectivism Scale (IC-S), The Experiences in Close Relationship Scale-Short Form (ECR-S) and The Love Attitude Scale short form (LAS). The model successfully predicted each love style and in one case (Mania) accounted for 52% of the variance in this love style. Each love attitude had a different profile, and no one predictor dominated any one style which supports Lee's original idea that the styles are qualitatively different.

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Predictors of Love Attitudes: The contribution of cultural orientation, gender attachment style, relationship length and age in participants from the UK and Hong Kong.

This study seeks to explain romantic love by investigating the impact a range of factors have on it; specifically the study explores how relationship length, gender, cultural values, and attachment style influence the experience of love, using Lee's (1977) Colours of Love Theory. Romantic love is among the most vital features of the experience of being human (Neto, 2007) and romantic relationships comprise a central part of people's lives (Demir, 2008). Finding a romantic partner and establishing and maintaining a long-term relationship with that particular person is a crucial social process that various individuals strive to achieve (Holmes & Johnson, 2009). Love style pertains to people's attitudes and beliefs about love that are brought to a relationship and which direct their experiences and behaviour towards the person they love (McGuirk & Pettijohn, 2008). However, love can be conceptualized as a social construct that varies between individuals because cultural norms and values as well as early childhood experiences have a great impact on the meaning individuals ascribe to romantic love (Jackson, Chen, Guo, & Gao, 2006). Consequently, some features of love are relatively culture-specific and time-bound and therefore it is of critical importance to investigate how these factors change the way this emotional state of love is manifested and experienced (Shahrazad, Hoesni, & Chong, 2012). This study will look at the love experience from an intrapersonal, interpersonal and intergroup perspective, drawing from two culturally different samples from the UK and Hong Kong. In doing so, this research hopes to address existing cultural bias and add to an understanding of one of humanity's most intense experiences.

Colours of Love Theory

One of the major love theories in romantic relationship research was conceptualised by Lee (1977) who originally proposed the Colours of Love Theory. Lee claimed that individuals have distinct approaches or attitudes toward love and therefore love is a multi-dimensional concept consisting of six distinct types of love.

The first style of love is Eros, an extremely emotional experience that is similar to passionate love. An erotic individual takes a romantic approach to love and experiences a powerful attraction to the person and tends to fall completely and immediately in love. The erotic lover is particularly attracted by a specific physical type of the partner (Lee, 1977). Ludus is the second love colour. The ludic lover considers love as a game to be played, frequently with various partners at the same time and he or she believes that lies and deception are acceptable (Hendrick & Hendrick, 1986). The ludic lover avoids and excludes the current partner from any future life plans and is perturbed about any indication of growing dependence or commitment (Hensley, 1996). The third colour of love is Storge which is based on companionship, trust and respect. The storgic lover has a strong commitment toward the relationship and considers the partner as an old friend who has similar attitudes and values and therefore the storgic lover does not experience powerful emotions to the romantic partner (Lee, 1973).

The fourth love style, Pragma, is characterised as having a practical view on love which entails a conscious consideration of the demographic features of the potential partner. The pragmatic lover is searching for similarities of background and interests that can potentially make that person a good partner for life (Hendrick & Hendrick, 1992). Another love style is Mania. This extremely jealous and obsessive-dependent approach to love is

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identified by great emotional intensity and an effort to force love and commitment from the partner. Manic lovers feel desperate to be loved and often question the lover's sincerity. Consequently, manic lovers often feel unhappy in their relationships (Lee, 1977). Agape which represents a selfless and all-giving love style is the last colour of love. People who endorse an agapic style tend to have satisfying and long-lasting relationships. Agape is characterised by altruism and entails a responsibility to love and care for the partner in the absence of any expectation of reciprocity (Hendrick & Hendrick, 1986).

It is important to note that Lee does not see the love styles as traits; it is entirely possible that the same person may have one relationship that is more characteristic of one style and another more characteristic of an entirely different style. It is even possible that the same relationship may change over time. This would fit in with the popular western idea that love becomes less passionate or even fades away over time and there is some evidence for this occurring; Hatfield, Pillemer, O'Brien, & Le, (2008) conducted research in the US on newlyweds and participants who had been married for years and found that both passionate and companionate love faded over time, which could be interpreted as a drop in Eros and Storge. However, other researchers who have approached the issue of love over time have reported quite different findings.

Hammock and Richardson (2011) claimed that the obsession that is related to the manic love style appears at the beginning stages of a romantic relationship when the couple is not certain about their feelings and the future of the relationship but that as love develops those feelings are replaced by feelings more like agape. Le and Agnew (2003) argued that commitment which generally maintains the relationship over time and intimacy evolve more slowly but become more significant at the later stages, providing a long-term romantic relationship with an entirely different character from the unstable and intense feelings of its beginning suggesting it is Mania not Eros that fades over time. This conclusion is supported by Acevedo and Aron (2009) in their meta-analysis of research on the same topic which found that passionate love in long-term relationships can be lasting, it is the obsessional features often found in early stage love that is not. Long term relationships do not necessarily evolve into companionate love.

It should be pointed out at this stage that the research reported here was conducted on western samples; samples drawn from East Asian countries may reveal a different story. Cross cultural comparisons of romantic love often focus on the primacy of love in decisions to marry (Dion and Dion (1996) concluding that it is less important in collectivist cultures in which marriages are often arranged by parents, relatives or friends who focus on the potential partner's social standing and socioeconomic background. This has led some to claim that cultures like China are less romantic, (Kline, Horton, Zhang, 2008).

Culture and Love

A complete understanding of romantic relationships must take account of the contribution of culture (Neto, 2007). Aumer-Ryan, Hatfield and Frey (2007) argued that cultural variations have a critical influence on the way individuals define and experience love but also on who they tend to fall in love with and therefore culture related dimensions are crucial in the study of love. At psychological and social levels, the dimensions of individualism and collectivism provide insights into the essential features of romantic love and its significance for marriage (Dion & Dion, 1996). Collectivist values evolve in cultures with strong extended family relationships that emphasise social relations with others,

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interdependence and in-group goals whereas individualism develops in cultures where people value independence, the pursuit of personal goals, and to be unique from others (Triandis, 2001). An earlier study by Hofstede (1984) identified that people in Asian societies including Hong Kong, Singapore and Taiwan scored high on collectivism whereas the USA, the UK, the Netherlands and Australia scored high on individualism. A more recent meta-analysis suggested that people from China consistently endorsed strong collectivistic values compared to people from Western countries (Oyserman, Coon, & Kemmelmeier, 2002).

The ideology of romantic love focuses on striving for personal fulfilment and following personal desires, even if they contradict those of a person's family and relatives (Lieberman & Hatfield, 2006). This ideology complies with individualistic societies in which romantic love is a very personal experience and choosing a partner is a private matter (Adams, Anderson, & Adonu, 2004). In comparison, a person in love from a collectivist society has to respect the expectations of family and other group members (Hatfield & Rapson, 2006). The concept of romantic love is therefore not in accordance with a Chinese cultural orientation where individuals are required to consider not only their own personal feelings but also their obligations to their parents (Smith, Spillane, & Annus, 2006).

Toro-Morn & Sprecher, (2003) have argued that East Asian couples are less likely to report experiencing romantic passion than people from Western countries. A cross-cultural study was conducted by Gao (2001) which looked at intimacy, passion and commitment, the three elements of love according to Sternberg (1986), in which he expected to find the Chinese were higher in commitment and the Americans in intimacy and passion. Instead he found that Chinese people are less passionate than Americans but there was no difference on the other factors. Similarly, Dion and Dion (1996) indicated that young Chinese adults in Canada endorsed the friendship style of love more than young adults from European backgrounds. However, the reports that Chinese culture is less romantic and passionate may be consistently found because the psychological study of romantic love is culturally biased as it uses scales of measurement devised and validated in the west. In addition the observed differences between the cultures could reflect differences in norms surrounding self-disclosure and communication. Klein, Horton and Zhang (2008) have shown that East Asian participants express love differently to American participants.

In different cultural groups, individuals often value very distinct attributes in romantic partners (Ingoldsby, Schvaneveldt, & Uribe, 2003) but also have distinct expectations about relationships such as responsibilities, obligations and roles of romantic partners (Zhang & Kline, 2009). In China, high income and other pragmatic features are seen as desirable attributes in a romantic partner (Hatfield & Rapson, 2010). A study by Goodwin and Findley (1997) indicated that students from Hong Kong strongly endorsed the Chinese concept of *Yuan* which signifies predestined love and reported that the belief in *Yuan* was positively correlated with agapic and pragmatic love styles but negatively correlated with the erotic love style. Surprisingly, the British individuals scored also highly on various *Yuan* items which is a very important finding as it shows that Eastern beliefs of obligation and fatalism may be present in Western concepts of love as well.

It has been argued that cross cultural similarities are a product of globalisation, for example, Park and Kim (2006) stated that East Asian people experience pressure to acquire more individualistic cultural values because of an increasingly Western-oriented culture. Kim and Hatfield (2004) argued that through globalisation and the media, Western views of romantic love and ways of finding a romantic partner have started to pervade collectivist cultures. Levine, Sato, Hashimoto and Verma (1995) found that only a very few university

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students from Hong Kong (5.8%) would agree to marry without being 'in love' compared to a higher percentage of students from England (7.3%). Traditional collectivist societies such as Hong Kong experience changes in values toward more psychological individualism which contradicts with the traditional image of Chinese culture (Cho, Mallinckrodt, & Yune, 2010). It is therefore timely to conduct a cross-cultural study.

Gender Differences in Love Experiences

Much of the research on gender differences and romance focuses on mate selection strategies from an evolutionary psychology perspective (e.g. Buss & Schmidt 1993). Gender difference is consistently reported in research on close relationships within such a context but the scope of this paper means we shall focus on literature directly relevant to love attitudes.

Hendrick and Hendrick (1986) found that males scored more highly than females on Ludus and Frazier and Esterly (1990) found males more likely to endorse a game-playing love style which is essentially the same thing. Females scored more highly on Storge, Pragma and Mania than males (Hendrick and Hendrick 1986) This research showed no gender differences on Agape or Eros. Dion and Dion, (1993) found that women were more friendship orientated (or Storgic) than men and again, more likely to endorse pragmatic attitudes towards love.

Female pragmatism may be responsible for differences in mate selection strategies as shown by Eastwick and Finkel (2008) who reported that men value physical attractiveness in romantic partners more than women, whereas women desire partners who have good earning potential. Buunk, Dijkstra, Fetchenhauer and Kenrick (2002), also found that when selecting a partner women were more interested in level of education, income, intelligence and self-confidence than men, who focus more on physical attributes.

Lin and Huddleston-Casas (2005) conducted a study focusing on Agape love attitudes and found males scored more highly than females on this selfless, altruistic love style. Such a finding seems somewhat at odds with research conducted in the UK by Davies (2001) who investigated gender differences in perceived social desirability of different love styles. He found Agape was a socially desirable style for females, but undesirable for males.

Once again, it should be pointed out that much of this research was conducted in North America and Western Europe. To counter this, Neto (2007) researched the love concepts within a Chinese context and found that Chinese men reported higher endorsement of the Storge and Agape love styles whereas Chinese women tend to endorse a Pragmatic love style. Sprecher and Toro-Morn (2002) provided further support that Chinese men are more storgic but also more romantic than Chinese women. Brown (2001) found that East Asian women seek romantic partners who are well educated and of the same nationality but also desire that their relationship is approved by their families. In contrast, East Asian men were more romantic and considered a good family background as unimportant but the most valued features of their partners were attractiveness and affection. Most recently research conducted by Zenner and Mitura (2012) has shown that gender differences decrease as the gender equality of a country increases.

Adult Attachment Style

As well as gender and culture, attachment style has been shown to have a profound effect on the nature and success of romantic relationships; Hazan and Shaver (1987) have

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applied the classic developmental theory of attachment (Bowlby, 1979) to adult romantic relationships.

In adulthood, a romantic partner functions as a major source of security and support (Brennon, Clark, & Shaver, 1998) and therefore becomes an individual's primary attachment figure who provides a secure base and safe haven (Shaver & Mikulincer, 2010). Hazan and Shaver (1987) claimed that the secure, avoidant, and anxious-ambivalent styles of attachment in infancy, identified by Ainsworth, Blehar, Waters and Wall (1978), can be adapted to the context of romantic relationships in adulthood and impact on the ways in which adults experience romantic love.

Individuals with a secure attachment style possess a positive model of the self as worthy of love and a positive model of others as mainly responsive and accepting to their expressions of love (Holmes & Johnson, 2009). Moreover, research revealed that they feel comfortable opening up to and depending on their romantic partners (Fraley & Bonanno, 2004) and find it easy to get close to them (Fuller & Fincham, 1995). Secure adults who describe their love experiences to be happy, trusting, and enduring (Collins & Read, 1990), tend to form satisfying, committed long-term relationships throughout their life, (Mikulincer & Shaver, 2003).

Adults with a high score on the avoidant attachment dimension find it difficult to trust and to allow themselves to depend on their partners and would rather remain self-contained (Ho, Chen, Bond, Hui, Chan, & Friedman, 2012). Avoidant attached lovers manifest a discomfort with intimacy in relationships and become nervous when a romantic partner gets too close (Collins, Cooper, Albino, & Allard, 2002). Kirkpatrick & Hazan (1994) argued that avoidant attachment is correlated with distrusting the romantic partner and acting in an emotionally distant manner. The dimension of attachment-related avoidance is not solely marked by feelings of distress concerning being dependent and close to the romantic partner but also experiencing problems in expressing emotions and thoughts (McCarthy & Taylor, 1999).

Insecure anxious adults have a strong desire to become close to the other person but also have a strong fear of rejection and experience romantic love with high levels of jealousy and obsession (Campbell, Simpson, Boldry, & Kashy, 2005). They view their partners as reluctant to get as close to them as they would prefer and therefore individuals anxiously seek to gain validation of their partner's love and desire to stay with them (Stroebe, Schut, & Stroebe, 2006). This excessive reassurance-seeking from the romantic partner (Shaver, Schachner, & Mikulincer, 2005) might be explained by anxious attached individuals' lack of self-confidence in their own value as a romantic partner and in their ability to manage a partnership effectively (Ho et al., 2011).

Research has shown that attachment style effects love attitudes, for example, Fricker & Moore (2002) conducted a study with dating couples and revealed that secure romantic attachment correlated positively with the Agape and Eros love styles whereas the anxious attachment was positively related to the Manic love style. Feeney & Noller, (1990) also found the anxious attachment style was related to Mania and furthermore that the avoidant style was related to Ludus. The idea that love is a game may help avoidant individuals to keep partners at a distance whilst the obsessive features of Mania may be characteristic of anxious individuals who struggle finding reciprocity for the intense emotions they feel for their partners.

Attachment and Culture

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Since adult attachment style is largely assumed to be shaped if not fixed in childhood (Bowlby, 1979) it is important to consider cultural differences that may arise through different child rearing norms. Cross-cultural research suggests that children learn to behave in accordance with the cultural norms in their society (Rothbaum, Weisz, Pott, Miyake & Morelli, 2000) and that Chinese culture values parents who emphasize emotional harmony and control in relationships (Chen et al., 1994). Schmitt, Alcalay, Allensworth, Allik, Ault, and Austers, (2004) conducted a study of 56 nations and found that the anxious attachment style was especially prevalent in East Asian cultures. You and Malley–Morrison (2000) claimed that East Asians are particularly prone to anxious romantic attachments as they strive for self-acceptance by gaining the romantic approval of highly valued others. Whether this apparent difference impacts upon love attitudes remains to be seen.

The Present Study

The proposed study aims to explore the extent to which culture, gender, attachment style, and relationship length predict each of the six love styles. It will draw samples of participants from the UK and Hong Kong as examples of Western individualist and Eastern collectivist cultures and explore Dion and Dion's claims concerning individualism leading to Eros and Collectivism to Pragma. In terms of attachment styles, the insecure anxious style is expected to positively predict Mania, and the avoidant style to positively predict Ludus. Relationship length is expected to reduce Eros and increase Storge, and gender is expected to be particularly important in predicting Pragma and Ludus.

Method

Design

The study employed a multiple regression where the variables, attachment style, culture, nationality, gender, relationship length and age were explored as predictors of love styles.

Participants

108 participants were recruited; 56 from the UK and 52 from Hong Kong, all of whom were currently in romantic relationships. Across the sample 51 were male and 57 were female with an overall average age of 28.96, (ranging from 20-61). Age and gender were not quite evenly distributed across the two samples; in Hong Kong participants were on average a little older (Mean= 30.33, SD=12.21) than the UK participants (Mean=27.12, SD=10.14), but a t test revealed that this difference was not significant $t(106)=1.46, p>0.05$. In line with the age difference, participants from Hong Kong had on average been in their relationships for longer (Mean=87.08 months, or seven and a quarter years, SD= 88.47), than their UK counterparts (mean=60.66, just over five years, SD=103.34), but again, this difference was not significant $t(106)=1.42, p>0.05$. Finally, a Chi-square test was performed in order to check the gender distribution across the two samples (Hong Kong $m=27$ $F= 25$, and UK $m=24$, $f=32$), which was not significantly different either. All participants were in relationships and 97% of them responded 'yes' when asked if they were in love.

Materials

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Since the research required participants to complete questions on a wide range of topics, wherever possible the shorter forms of scales were used so as to avoid fatigue and boredom. All materials were presented in English.

The Individualism and Collectivism Scale (IC-S; Triandis & Gelfand, 1998). The IC-S was designed to measure participants' cultural orientation and originally included four dimensions of vertical and horizontal individualism and collectivism but for the purposes of the present study only the two horizontal dimensions of individualism and collectivism were utilized which we conceptualized as more relevant to close interpersonal relationships than the vertical dimensions which is more concerned with hierarchical power structures. The scale comprised 8 items to which participants respond on a scale of one to nine and has been shown to have excellent internal consistency reliability and discriminant and convergent validity in a study conducted with university students from America and Korea (Triandis & Gelfand, 1998).

The Experiences in Close Relationship Scale-Short Form (ECR-S; Wei, Russell, Mallinckrodt, & Vogel, 2007) was used to assess attachment style. It provides data on two continuous scales concerning the extent to which participants show attachment dimensions: anxiety and avoidance. The ECR-S consists of 12 items which participants respond to on a seven point scale. The lower the score the more securely attached the participant. Items were chosen from the original ECR self-report measure with 36-items developed by Brennan, Clark, and Shaver (1998). The ECR-S has been found to have acceptable internal consistency and test-retest reliability for the adult attachment anxiety and avoidance subscales (Wei et al., 2007).

The Love Attitude Scale: Short Form (LAS; Hendrick, Hendrick, & Dicke, 1998) was used to assess the six love styles as identified by Lee (1973). The LAS is a 24-item scale and contains six subscales that represent each of the six different love dimensions: Eros, Ludus, Storge, Pragma, Mania and Agape.

Each of the six subscales has four items which participants respond to on a 5-point scale. The 24-item LAS has superior psychometric properties than the original 42-item version of the LAS by Hendrick and Hendrick (1986). The LAS has been evidenced to be a valid and reliable scale of the six love dimensions (Graham & Christiansen, 2008) and found to be appropriate for cross-cultural context (Shahrazad, Hoesni, & Chong, 2012).

Demographic data was also collected concerning the gender and age of the participant, the length of time they had been in their relationship and whether they were in love.

Procedure

The study took place in two countries, Hong Kong and the UK and participants were recruited via opportunity sampling of people who were currently in romantic relationships. Before the study began, all participants were informed about the procedure, ethical issues and the basic aims of the study. Participants were told that their participation was voluntary and that they were free to terminate their participation and to withdraw their data at any time during and also after the study. They were further reassured that their results would be kept confidential and anonymous. Participants were also informed that some of the questions were personal involving sensitive topics about their current romantic relationship and if this would make them feel uncomfortable they were not obligated to continue. Afterwards, they were debriefed and provided with contact details for support resources should they need them. All

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questionnaires were administered in English language and therefore Hong Kong participants were reassured to complete the questions at their own pace.

Results

Cross cultural comparisons

A key reason for comparing a Hong Kong sample with a British one was that it allowed us to compare a more collectivist culture with an individualist one and so it was crucial to test this assumption. The table below shows the mean total scores (and standard deviations) on the horizontal subscales of individualism and collectivism according to country. T-tests revealed that collectivism scores were significantly higher in Hong Kong ($t(106)=2.21, p=0.029$) and individualism scores were significantly higher in the UK ($t(106)=10.23, p=0.001$)

Table 1: Mean scores for cultural orientation and attachment style for UK and Hong Kong participants

	UK	Hong Kong
Collectivism	26.10 (4.81)	28.00 (4.10)
Individualism	28.07 (4.52)	19.10 (4.60)
Attachment anxiety	17.91 (5.10)	15.02 (5.10)
Attachment avoidance	11.09 (3.90)	10.62 (3.90)

We also compared the attachment insecurity dimension scores for across the samples, the mean scores above show overall lower scores for the Hong Kong participants suggesting they are more secure. T-tests revealed this difference was significant on the anxiety dimension, $t(106)=2.97, p<0.005$, but not for the avoidant dimension; $t(106)=.63, p>0.05$.

To ensure that the LAS short form was reliable for both samples reliability analysis was conducted for each and overall, the Cronbach Alpha for each and overall is shown below in table 2.

Table 2: Reliability α for each love style subscale for UK and Hong Kong participants

	Hong Kong	U.K	Total
Eros	.332	.661	.546
Ludus	.641	.647	.690
Storge	.885	.876	.880
Pragma	.875	.669	.838
Mania	.700	.742	.731
Agape	.861	.848	.854

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Multiple regression was performed using our six predictor variables for the six different love styles. Initial correlations were conducted and are displayed in table 3.

Table 3; Correlation matrix for predictor variables and love styles

	Gender	Length	Collectivism	Individualism	Anxious	Avoidant
Gender						
Length of Relationship	.16					
Collectivism	.02	.38**				
Individualism	-.09	-.23*	-.30**			
Anxious	.25**	-.14	-.19	.14		
Avoidant	-.11	-.29**	-.08	.02	.03	
Eros	.16	.37**	-.27**	-.20*	.05	.07
Ludus	.17	.35**	.20*	-.41**	.00	-.36**
Storge	-.38**	-.30	-.10	.22*	-.01	.07
Pragma	-.30**	-.13	-.18	.33**	.08	.10
Mania	-.14	.38	.34	-.11	-.58**	-.23*
Agape	.35**	-.18	-.02	.11	-.05	.13

Gender was entered as a dummy variable and additionally table 4 shows the mean scores by gender for each love style.

Table 4; mean (and SD) love style scores by gender

	Male	Female	Total
Eros	17.43 (1.81)	16.86 (1.92)	17.13 (1.88)
Ludus	9.27 (3.72)	8.12 (3.19)	8.67 (3.48)
Storge	13.06 (4.06)	9.72 (3.96)	11.30 (4.33)
Pragma	8.73 (3.35)	11.39 (4.71)	10.13 (4.32)
Mania	15.06 (3.51)	14.57 (3.75)	14.81 (3.63)
Agape	14.35 (3.48)	11.54 (3.68)	12.87 (3.84)

Eros

The overall model for Eros was significant ($F(6,101)= 4.77, p<0.001$), and explained 22% of the variance on this love style however this was due mainly to relationship length which was the only significant individual predictor, the longer the participant had been in their relationship, the less Eros they endorsed as a love style.

Table 5. Summary of multiple regression analysis for variables predicting Eros

Variable	B	S.E. B	β
Gender	-0.23	.35	-.06
Relationship length	-0.01	.00	-.38**
Avoidance	-0.07	.05	-.14
Anxiety	-0.05	.03	-.14
Individualism	0.03	.03	.09
Collectivism	-0.05	.04	-.12
**p<0.01			

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R²=0.22
R² Adjusted= 0.18

Ludus

The multiple regression revealed that these variables predicted Ludus scores, $F(6,101)=8.24$, $p<0.001$, this time accounting for 33% of the variance in scores. The predictor variables which made an independent contribution were individualism and insecure avoidance, both of which positively predicted this game playing attitude toward love. As individualism relates to the cross cultural aspect to this research a t-test was conducted showing a significantly higher endorsement of Ludus from UK participants than from the Hong Kong participants ($t(106)=4.07$, $p<0.001$).

Table 6. Summary of multiple regression analysis for variables predicting Ludus

Variable	B	S.E. B	β
Gender	-0.43	.60	-.06
Relationship length	-0.01	.00	-.16
Avoidance	0.28	.08	.31**
Anxiety	-0.03	.06	-.05
Individualism	0.19	.05	.36**
Collectivism	-0.01	.07	-.02
** $p<0.01$			
R ² =.33			
R ² Adjusted= .29			

Storge

The model was significant; $F(6,101)=5.07$, $p<0.001$, explaining 23% of the variance on the Storge scale. The summary table below illustrates that Gender and relationship length were the key predictors for this Love style; males scored more highly ($M=13.06$) than females ($M=9.72$) and the longer the relationship the less this 'love as friendship' attitude was endorsed.

Table 7. Summary of multiple regression analysis for variables predicting Storge

Variable	B	S.E. B	β
Gender	-2.94	.80	-.34**
Relationship length	-0.01	.01	-.25*
Avoidance	-0.04	.10	-.04
Anxiety	0.04	.08	.01
Individualism	0.10	.06	.14
Collectivism	0.03	.09	.04
* $p<0.05$			
** $p<0.01$			
R ² =.23			
R ² Adjusted = .19			

Pragma

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Again, our model significantly predicted scores on this love attitude, $F(6,101)= 4.85$, accounting for 22% of the variance. The variables that independently predict the pragmatic love style were gender and individualism. Females scored more highly than males and the more individualist the participant the less they endorsed pragma as a love style. The latter is of interest as it relates to the cross cultural aspect of this research and so, in order to explore it further a t test was conducted upon the Pragma scores for participants from the UK and Hong Kong which revealed that the Hong Kong participants scored more highly on this love style ($t(106)=4.70$, $p<0.001$).

Table 8. Summary of multiple regression analysis for variables predicting Pragma

Variable	B	S.E. B	β
Gender	2.65	.80	.31**
Relationship length	-0.00	.01	-.03
Avoidance	-0.09	.10	-.08
Anxiety	-0.10	.08	-.12
Individualism	-0.20	.06	-.29**
Collectivism	0.07	.09	.08
**p<0.01			
R²= .22			
R² Adjusted= .18			

Mania

This model was the most successful, accounting for 52% of the variance of mania scores it was highly significant ($F(6,101)= 18.39$, $p<0.001$), and three variables made a significant independent impact on this scale; relationship length, anxious insecurity and collectivism. The longer the individual was in a relationship the less they expressed manic love attitudes. Scores on the anxious attachment dimension were also negatively related to this love style, however collectivism positively predicted it. Again, a this cultural effect had cross cultural implications a t-test was used to compare the UK and Hong Kong participants but failed to show a significant difference, ($t(106)=1,89$, $p>0.05$).

Table 9. Summary of multiple regression analysis for variables predicting Mania

Variable	B	S.E. B	β
Gender	0.01	.53	.00
Relationship length	0.00	.00	.24**
Avoidance	-0.16	.07	-0.17
Anxiety	-0.35	.05	-0.50**
Individualism	0.02	.04	0.03
Collectivism	0.17	.06	0.21**
**p<0.01			
R²= .52			
R² Adjusted= .49			

Agape

The final love attitude to be analysed was agape, as with each of the others, the overall model was significant, $F(6,101)= 5.65$, $p= 0.001$, and explained 25% of the variance. The variables

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to make a significant individual impact were gender, relationship length and insecure anxiety. Males (14.35) endorsed this love style more than females (11.54) and the longer the participants had been in a relationship the more they saw it as Agape in nature. Scores on the insecure anxious dimension also positively predicted this love style.

Table 10. Summary of multiple regression analysis for variables predicting Agape

Variable	B	S.E. B	β
Gender	-3.70	0.70	-.48**
Relationship length	0.01	0.00	.24*
Avoidance	-0.11	0.09	-.11
Anxiety	0.16	0.07	0.22*
Individualism	-0.08	0.06	-.13
Collectivism	-0.05	0.08	-.06
*p<0.05			
**p<0.01			
R²= 0.25			
R² Adjusted=0.21			

Discussion

This study explored whether cultural orientation, gender, attachment style, and relationship could be combined to predict each of the different love styles, and the results revealed that they did. In the case of mania the model accounted for 52% of the total variance for this love attitude but even on the Storge where the model had its lowest predictive value of 22% it is worth remarking on how a significant amount of love can be explained by social rather than personality factors. Although the model was significant for each love style, the relative contribution of each predictor variable was different for each. This supports Lee's concept of six separate love styles as all six had unique profiles.

A central concern of this investigation was to add to the body of research that draws from samples from different cultures to redress the existing Western bias. By including participants from Hong Kong and the UK it was possible to test Dion and Dion's (1996) theory concerning the difference between individualist and collectivist cultures' attitudes toward love and the results provided partial support. The UK sample was more individualist than their Hong Kong counterparts who were more collectivist. The authors argue that the individualist romantic notion of all-consuming passion means this culture will be higher on Eros however neither of the cultural predictors made a significant independent contribution in predicting this love attitude. Dion and Dion's research has largely been with participants living in Canada who were either of European or Chinese ethnicity whereas the current study recruited across two different nations with a degree of shared history which may be why the present study failed to add support for Dion and Dion on this issue, however it must be pointed out that the Eros scale was not particularly reliable, especially for the Hong Kong participants which may be an alternative explanation. Dion and Dion's (1996) prediction concerning greater Pragma in collectivist cultures was upheld, although it was a lack of individualism, rather than an increased collectivist score that was key in predicting this love style. Follow-up comparisons between the two nationalities showed that the Hong Kong participants endorsed this love attitude more highly than those from the UK. The inverse pattern was found for Ludus, where again, individualism was an independent predictor of this

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love style, but this time the relationship was positive. Follow-up analysis revealed that it was the UK who endorsed this love style most highly. Taken together these findings support Dion and Dion's (1996) argument that collectivist cultures promote concern for family and societal expectations resulting in Pragma, whilst the more selfish individualist culture allows for the game-playing attitude toward love which emphasises enjoyment over commitment. The collectivism scale was also a positive independent predictor of love but for the style of Mania, yet this time there was not a significant difference between the UK and Hong Kong samples, however it is still an interesting result. It may be that collectivist values are more consistent with the dependency element of the manic love attitude but that is not a key factor distinguishing the two nations.

Of all of the predictor variables included in this research, relationship length had the greatest independent impact on four of the six love styles. It was the only variable to independently predict participants endorsement of Erotic love attitudes and in line with we found the longer the participant was in a relationship the less they reported this passionate love style. Further support for this idea comes from the finding for Mania, which was also negatively predicted by relationship length this was also reported by who interprets it as the early obsessive features of love not lasting into a relationship. On the other hand Hatfield et al (1993) have argued that this drop in passion as time passes is accompanied by an increase companionate love but, the analysis for Storge, (which most closely resembles companionate love) showed that relationship length was an independent but negative predictor of this love style, the opposite to what was expected. Could it be that all types of love simply fade with time? Not according to our data, the love style Agape, the selfless altruistic love style was positively predicted by relationship length which echoes the findings reported by Hammock & Richardson (2011). Agape has been described by as the idealised love style which many seek to attain but often evades us (Lee, 1973). An optimist may interpret the results concerning relationship length as showing that with time, relationships that last become more ideal, or it could be that this effect indicates the self-sacrifice required for a lasting relationship.

Gender is one of the most widely researched factor within the field of close personal relationships and as such it would be foolish to exclude it from the model. Indeed, it independently predicted three of the six love styles, Pragma, Storge and Agape. In line with previous research females were higher than males in Pragma, the practical, shopping list approach to relationships. This gender difference has been interpreted as an evolutionary strategy used to ensure offspring are provided for (Buss and Schmidt 1993), however it could equally reflect socialisation processes concerning gender roles. Agape and Storge also showed gender difference but this time it was the males that scored more highly, this is a more unusual finding, running counter to Hendrick and Hendrick (1986) who found females scoring higher in Storge but supported Lin and Huddleston-Casas (2005) who found males scored more highly in Agape.

The final factor included in our model was attachment style which was measured on the anxious and avoidant dimensions, both of which were independent predictors of different love styles. The anxious attachment style was a positive predictor of Agape and a negative predictor for Mania, which runs counter to our predictions as this; the more dependent and 'needy' attachment style was expected to display the manic style with its obsessive features, but the reverse was true. Instead it was related to the selfless idealistic Agape. It could be that the low self-esteem associated with insecure anxious participants (Feeney and Noller 1990) may result in the participant putting their partner first. The relationship with Mania is harder to interpret but it could be that since the Anxious insecure attachment style is the least common style and as such it is likely that there were relatively few in the sample, and

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consequentially participants scored too low on this scale to have the expected effect. This is purely speculative though. In terms of the avoidant attachment style, this made a unique contribution in predicting the Ludus love style which supports our hypothesis and the argument that the game playing love style that avoids commitment would be attractive to avoidant participants as it allows them to keep partners at arm's length. Further research is needed to fully support this interpretation but the initial findings are promising. Additional analysis was conducted on the attachment style data to investigate You and Malley-Morrison's (2000) claim that east Asians were more prone to anxious attachment style, but which the data did not support, on the contrary, the UK participants were significantly higher on this dimension.

Overall, the model was successful in predicting all six love styles however there were a number of limitations. Firstly, whilst the intention of this research was the add to the cross cultural body of work, it still retains western bias as all of the questionnaires were administered in English. As such the experience of participation would be different for the Hong Kong sample to the UK sample. Furthermore both were relatively small samples which make it difficult to generalise. Since this study included a broad range of measures, the shortened versions were used where available but this could have been at the cost of sensitivity. Improvements could be made by including a full collectivism/individualism scale or an alternative measure such as dependency/independency could be used to measure cultural differences as used by (Green, Deschamps and Paez, 2005). To get a fuller picture of gender related issues a measure of gender roles identification or self-stereotyping could also be incorporated.

Research could be extended to include relationship maintenance or conflict resolution of different strategies within relationship with an eye to developing culturally sensitive therapeutic approaches to improving relationship satisfaction. To this end it would be useful to include partner ratings to assess the dynamic aspects of love which are missing from the current study. Alternatively research could focus more on individual differences and include single people as well as those in relationships which would be a more effective way to assess the impact of attachment style.

In conclusion the study has shown that by including participants from both East and West quite different profiles of the different love styles become apparent than have been reported in the past. Each of the predictor variables; cultural orientation, gender, attachment style, and relationship length made an independent contribution to each love style and the model significantly predicted each of the love styles, which in turn were unique. The complexity of this issue is clear but so is its value since love for many is the most vital aspect of human existence for people the world over.

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