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Journal of Social and Personal Relationships 2005; 22; 155

DOI: 10.1177/0265407505050940

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Mate selection in Jordan: Effects of sex, socio-economic status, and culture

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ABSTRACT

The present study replicated Buss et al.'s (2001) international survey of mate preferences for long-term relationships within an Arab Jordanian context. As predicted, the findings confirmed the existence of commonly reported sex differences, in that our sample of Jordanian male college students showed greater interest in potential mates' good looks and youth compared to female students, who displayed greater preference for mates exhibiting economic ability and commitment. The findings further indicated that women's differential preferences for resource- and commitment-related attributes were mainly determined by sex rather than by socio-economic status. The study also found that Jordanians value the same attributes that have been universally considered important to have in a mate, namely love, kindness, and a pleasing disposition. Belonging to a developing traditional society, this sample of Jordanian students, as anticipated, included religiosity and refinement/neatness among their top preferences. Also, the study corroborated the casually observed social phenomenon of aversion to marrying divorcees among Jordanians, with men in this sample being particularly disinclined to seek this type of mate. The findings are discussed in the context of some evolutionary and socio-cultural notions posited in explanations of mating behavior.

KEY WORDS: culture • Jordanians • mate preferences • sex • socio-economic status • values

Around the world, selecting a mate is a decision of great importance that most humans make at least once in their lives. Mate selection has attracted the attention of social and personality psychologists, sociologists and

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Journal of Social and Personal Relationships Copyright © 2005 SAGE Publications (www.sagepublications.com), Vol. 22(2): 155–168. DOI: 10.1177/0265407505050940

evolutionary biologists (among others) who have attempted to identify the criteria that men and women use in choosing partners. Research on this issue has uncovered a number of differences and similarities related to sex, socio-economic status (SES), and culture. These differences (and similarities) have been explained in terms of adaptive evolutionary processes (e.g., Buss & Schmitt, 1993) and sociocultural influences (e.g., Eagly, Wood, & Johannesen-Schmidt, 2004).

The present study attempted to replicate Buss et al.'s (1990) international findings on mate preferences for long-term relationships, using a sample from a rarely studied Arab society, Jordan. In so doing, the study assessed the effects of variables relevant to evolutionary and sociocultural notions often invoked in interpreting differences between men and women in mate selection behavior. Specifically, the study examined whether Jordanian men and women would exhibit similar patterns of mate preferences, and how such preferences would be influenced by sex, SES, and cultural factors.

Evolutionary influences

From an evolutionary perspective, mate selection is viewed as being determined by males' versus females' sexual strategies, or 'solutions to adaptive problems' (Buss & Schmitt, 1993, p. 206), which have evolved in response to the different challenges and concerns that men and women historically faced in their pursuit of short- and long-term mating. One such challenge for men seeking long-term mating involves identifying and accessing reproductively capable women. Because cues to reproductive capacity (e.g., age and health) are difficult to assess directly, physical attractiveness cues are used instead. Because of the limited number of offspring women can produce, and the extensive parental investment they make in those they do produce, a major challenge for women seeking long-term mating would be to identify mates who are able and willing to provide resources (Buss, 1994; Buss & Schmitt, 1993).

Behaviorally, such concerns have been found to be universally reflected in the search for certain attributes in mates for men and other attributes for women. For example, men more than women, regardless of cultural background, tend to seek physically attractive, younger mates. In contrast, women more than men generally value mates who are older and have more resources and higher social status (Buss et al., 1990). Preferred age differences are suggested to be related to the sexes' 'inherited reproductive strategies' (Kenrick & Keefe, 1992, p. 81), whereby men's reproductive success would benefit more from pursuing women of childbearing age, whereas women's success would be enhanced by seeking older and more capable and committed mates.

More recently, Gangestad and Simpson (2000) have proposed that men and women engage in a 'plurality of mating tactics' (p. 586). According to their theory of 'strategic pluralism,' men and women seek short- or long-term mating contingent on environmental and cultural demands. For example, in environments that are difficult and necessitate care by both

parents, women are apt to put more emphasis on potential mates' willingness to invest in their offspring than on mates' genetic fitness. In contrast, men adjust their own preferences to the behavior of women in a given environmental context, which realistically translates into most men being involved in long- rather than short-term mating. The current investigation sought to assess the validity of these evolutionary notions by exploring men's and women's preferences for long-term mates in a new cultural milieu.

Socio-economic influences

More recently, some investigators (e.g., Eagly & Wood, 1999; Wood & Eagly, 2002) have provided evidence suggesting that sociocultural factors may explain the observed differences in the attributes preferred in mates by males versus females. Upon their analysis of Buss et al.'s (1990) international data, both Kasser and Sharma (1999) and Eagly and Wood (1999) concluded that women place increasingly less emphasis on mates' finances when their SES improves. More recently, Eagly et al. (2004) have provided an elaborate analysis of this issue, upon which they conclude that differences in mate preferences between males and females are related to the different social roles assumed by each of the sexes in the majority of human societies. According to Eagly et al.'s social role theory, the criteria used by men and women in choosing mates 'reflect the divergent responsibilities and obligations that are inherent in their current and anticipated social roles . . . [embedded] in a family system based on a male provider and a female homemaker' (pp. 288–289).

Along similar lines, the structural powerlessness theory (Buss & Barnes, 1986) suggests that the tendency for women to put more emphasis on the male's resources is related to material (structural) inequalities between men and women in human societies. Both social role and structural powerlessness theories imply that improvement in women's SES should result in corresponding changes in their mate preferences. This prediction, however, has not always been borne out by research findings (but see Luszyk, 2001). In fact, several studies have found that women's emphasis on potential mates' economic resources increases rather than decreases with the elevation of women's SES (Townsend, 1989; Wiederman & Allgeier, 1992; see also Todosijevic, Ljubinkovic, & Arancic, 2003). Thus, besides replicating Buss et al.'s study, the current investigation attempted to clarify contradictory conclusions regarding the role of socio-economic factors in accounting for differences, if found, between Jordanian men's and women's mate preferences.

Cultural influences

In addition to evolutionary and socio-economic considerations, preferred mate characteristics appear to be subject to strong cultural influences. For example, individuals from developing or traditional societies tend to assign more importance to the characteristics of chastity, good housekeeping, and desire for home and children than do individuals from industrialized

societies (Buss et al., 1990). Also, preference ordering of mate characteristics by men and women can be similar or different depending on the individual culture. For example, available evidence shows that samples from Asian and African societies show more differences between the sexes than European samples (Buss et al., 1990).

Although little data based on empirical investigations is available with respect to Arab societies, some sociological observations indicate that sex roles are well defined in these societies, where men and women by and large occupy different social domains (see Doumato & Posusney, 2003). In the case of Jordan, some recent accounts (Inglehart & Norris, 2003; see also Brand, 1998) have reported the existence of strong sex-role stereotypes among men and women. For example, in a recent study of prevalent worldwide attitudes toward a variety of social issues (Inglehart & Norris, 2003), Jordan was ranked at the bottom of a list of 61 countries with regard to attitudes toward sex equality. The authors of the study attributed this and similar findings to, among other things, 'common deeply-engrained belief systems' in some societies, where men and women subscribe to the traditional division of sex roles of breadwinner versus caregiver. Both sexes, regardless of the generation they belong to, believe that it is appropriate that men and women have distinct social roles in society (Inglehart & Norris, 2003). Applied to Jordan, this belief in distinct sex roles is reflected in the fact that Jordanian women make up only a small portion (around 20%) of the labor force, most of whom are concentrated in traditional occupations such as primary school teaching, healthcare, and social work (Tzannatos & Kaur, 2003).

Much valuable evidence on long-term mate selection in humans has come from Buss et al.'s (1990) large-scale international study carried out over a decade ago. As cautioned by these authors, however, representative samples were not always possible, and in some cases the samples were too small to draw meaningful and valid conclusions. In particular, aside from a small sample of Palestinians, data from Arab countries were virtually absent. Although Arab societies may share most of the values and qualities that characterize other human societies (Hofstede, 1980; Inglehart & Norris, 2003), these societies also possess their own distinct values and traditions that are closely tied to Arabs' history and religious faith. Accordingly, one would expect to find certain behaviors or preferences that are fairly unique to Arab culture. For example, the tendency for men to group with men and women with women, arranged marriages, dedication to family, and religiosity are salient features of Arab culture. Thus, the present study was designed in part to address Buss et al.'s sampling shortcoming.

The present study also aimed at exploring people's willingness to marry divorcees, another related issue with important cultural influences. Observed casually, Jordanians apparently hold negative attitudes toward marrying a previously married person, especially if the person has children to care for. Relevant to this issue are research findings indicating that parents are more likely to care for their own genetic children than for stepchildren (Daly & Wilson, 1983). Whether the negative attitudes

apparently held by Jordanians toward marriage to a divorced person are linked to this issue of parental investment (see Trivers, 1972), or to some specific cultural norms and beliefs, can only be speculated on here. Nonetheless, this study attempted to provide an empirical assessment of Jordanian attitudes toward divorcees as mates. In this respect, it was predicted that Jordanian participants would be least likely to include a divorced person among their preferences, especially one with children. Moreover, participants, especially men, were expected to show little preference even for a divorced person with no children. Although it is assumed that both men and women will come into a first marriage chaste, there is particular emphasis in Jordanian society on the attributes of female virginity and chastity (Brand, 1998). Although the emphasis on such attributes has been suggested to be of evolutionary significance to issues of fidelity, sexual jealousy, and paternity confidence (Daly, Wilson, & Weghorst, 1982; Dickemann, 1981), some cross-cultural data suggest that the import given to such attributes can be subject to 'proximate cultural influences' (Buss, 1989, p. 12).

Goals of the present study

Based on the foregoing discussion, the present study tested the following hypotheses. *H1* predicts that Jordanian men in this sample will place significantly greater emphasis than women on mates' youth and good looks, whereas women will emphasize, to a greater extent than men, mates' economic resources and dependability. *H2* predicts that preferences for economically viable mates will be expressed more by women than by men, regardless of their SES. *H3* predicts that Jordanian participants will exhibit strong preferences for mutual attraction, kindness, and other universal attributes. *H4* predicts that this sample of Jordanian youths will place greater emphasis than the international sample on such characteristics as religiosity, refinement/neatness, and desire for home and children. Finally, *H5* predicts that Jordanian participants will show a lack of inclination toward marrying divorcees, especially ones with children. Men will be less inclined than women to marry divorcees with no children.

Method

Participants

The sample consisted of 288 (121 male and 167 female) Jordanian college students enrolled in general education classes at a major public university in Jordan during the fall and spring semesters of 2001 to 2002. They belonged to various socio-economic backgrounds and ranged in age between 18 and 32 years ($M = 20.77$, $SD = 1.69$).

Materials

A three-section questionnaire, originally used by Buss et al. (1990), was used in this study. The questionnaire was translated into Arabic by the current author and checked for accuracy by two others fluent in both Arabic and

English. The first section included demographic questions. The second included questions regarding preferred marriage age, preferred age difference between self and mate, and preference for who should be older. The third section asked participants to rate a list of 17 characteristics in terms of their importance in choosing a mate, with a range of 0 (*irrelevant or unimportant*) to 3 (the characteristic is *indispensable*). This was followed by another shorter list of mate characteristics that required ranking from *most desirable* (assigned a score of 1) to *least desirable* (assigned a score of 13) (see Buss et al., 1990, for a more detailed description of the instrument).

One difference between the current and original instruments involved removing the item 'chastity: no previous experience in sexual intercourse' from the list of rated characteristics. Because of the conservative mores of Jordanian society, where sex outside marriage is forbidden and can have severe repercussions (see Brand, 1998), this item was deemed inappropriate. Another difference involved adding questions related to SES (e.g., parents' educational levels, family income).

In order to assess Jordanian participants' attitudes toward marriage to divorced individuals, the items 'divorced with children' and 'divorced with no children' were included in the survey, where answers to each ranged from '*strongly reject*' (assigned a score of 0) to '*strongly accept*' (assigned a score of 3). Although it has other connotations and implications, the item 'divorced with no children' was used to indirectly examine the issue of previous sexual experience as a factor in selecting a mate, in addition to serving as a comparison variable to the item 'divorced with children'.

Procedure

Participants were administered the questionnaire during class time after being informed of the voluntary nature of participation. It took participants 15–20 minutes to complete the questionnaire.

Results

As predicted in *H1*, men in this sample indicated greater preference than women for mates with attributes associated with reproductive capacity, such as youth and good looks. Women put greater emphasis than men on qualities indicative of resource acquisition and commitment, such as good financial prospects, favorable social status, and dependable character (see Table 1).

To test *H2* regarding sex versus SES effects on resource-related preferences, the various socio-economic indicators used in this study were grouped into one variable with two levels, low and high SES, whose effects were analyzed within a 2×2 (Sex \times SES) analysis of variance (ANOVA). As indicated in Table 2, the results of a series of two-way ANOVAs on a number of preferred mate characteristics showed that sex represented the only significant main effect in participants' preferences for mates with good financial prospects, good earning capacity, favorable social status, and dependable character. More specifically, these analyses showed that women emphasized these attributes significantly more than men. Significant sex and SES main effects were found for participants' preferences for mates who are ambitious/industrious, and who are college graduates. No significant interactions between sex and SES were found.

In line with *H3*, the preferences of this group of Jordanian college students showed striking similarities to those found for the international sample

TABLE 1
***t*-Test and size effect results for mate characteristics differentially rated and ranked by males and females**

Characteristic	Males		Females		<i>t</i> -value	<i>P</i>	Effect size (<i>d</i>)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Good looks	2.38 (1.91)	.70 (.26)	1.92 (1.46)	.71 (.28)	5.36	.000	.65
Preferred age difference	-4.23 (-2.66)	2.31	5.46 (3.42)	2.08	-4.71	.000	-.56
Good financial prospects	.91 (1.51)	.87 (.42)	2.29 (1.76)	.70 (.38)	-14.97	.000	-1.75
Dependable character	2.53 (2.50)	.64 (.46)	2.93 (2.69)	.29 (.31)	-7.23	.000	-.80
Favorable social status	1.93 (1.16)	.84 (.28)	2.30 (1.46)	.68 (.39)	-4.11	.000	-.49
Ambitious and industrious	2.28 (1.85)	.76 (.35)	2.60 (2.15)	.64 (.35)	-3.92	.000	-.46
College graduate	8.20 (9.41)	3.73 (1.03)	6.78 (8.73)	3.92 (1.29)	3.07	.002	-.37

Note. Potential mean values can range from 0 (*unimportant*) to 3 (*indispensible*) for the first, third, fourth, fifth, and sixth (rated) items, and from 1 (*most desirable*) to 13 (*least desirable*) for the seventh (ranked) item. The values for the second item reflect number of years. The first two items show characteristics related to reproductive capacity, whereas the remaining five items show characteristics reflecting resource viability. Values in parentheses are those obtained by Buss et al. (1990), for the international sample.

TABLE 2
Results of two-way ANOVAs on preferences for mate characteristics related to resource acquisition and commitment

Variable Characteristic	Sex	SES		Sex × SES	
		Effect size (η^2)	Effect size (η^2)		
GFP	<i>F</i> (1,282)	217.58***	.43	.55	.65
GEC	<i>F</i> (1,277)	101.38***	.27	1.39	1.49
FSS	<i>F</i> (1,284)	15.37***	.05	2.30	.19
CG	<i>F</i> (1,279)	8.51**	.03	27.89***	.09
AI	<i>F</i> (1,281)	15.03***	.05	6.50***	.02
DC	<i>F</i> (1,280)	52.76***	.16	.87	.01

Note. GFP = Good Financial Prospect, GEC = Good Earning Capacity, FSS = Favorable Social Status, CG = College Graduate, AI = Ambitious and Industrious, DC = Dependable Character. ***p* < .01; ****p* < .001.

examined by Buss et al. (1990). For example, among the rated characteristics, 'mutual attraction-love' was placed as number one (*M* = 2.81, *SD* = .47), the same position it occupied for the international sample. Characteristics such as 'pleasing disposition' (*M* = 2.80, *SD* = .48) 'dependable character' (*M* = 2.77,

SD = .51), and ‘good health’ (*M* = 2.68, *SD* = .56) were rated among the five most highly valued attributes, whereas the least important characteristic for this group of participants was ‘similar political background’ (*M* = 1.13, *SD* = .98). Overall, preference ordering for current Jordanian participants had a correlation of .73 (*p* < .01) with that of the international sample. A similar pattern of results was found for the ranked characteristics (see Table 3), with the notable exception of the attribute ‘religious.’

H4 predicted that current Jordanian participants would attach high values to characteristics associated with the mores of a traditional society. As shown in Table 3, this hypothesis was largely supported by the data. For example, these participants ranked ‘religious’ (*M* = 4.03, *SD* = 3.98) as the second most desirable characteristic. This result, which held equally true for both sexes, is in sharp contrast with the very low (13th) position (*M* = 10.38; *SD* = 1.68) given to this attribute by the international group. The current sample also rated highly the attribute ‘refinement, neatness’ (*M* = 2.78, *SD* = .45), which was rated as the most important characteristic by the current sample of men, and the fourth by women. In comparison, this characteristic occupied the ninth position for men and tenth for women in the international sample. Another traditional characteristic, ‘desire for home and children,’ occupied sixth position (*M* = 2.58, *SD* = .67) for the Jordanian sample, compared to eighth for the international sample. Although ‘good cook and housekeeper,’ another traditional attribute, was unexpectedly rated low (*M* = 1.66, *SD* = .99) by the samples of males and females combined, a position somewhat lower than for the international sample, it occupied a higher position (seventh among the ranked and tenth among the rated characteristics) for males than for females.

Confirming casual observations, Jordanian participants expressed strong objections to marrying divorced individuals (*H5*). Both men and women were

TABLE 3
Summary of rankings for Jordanian men versus women

Rank	Men		Women			
	Characteristic	<i>M</i>	<i>SD</i>	Characteristic	<i>M</i>	<i>SD</i>
1.	(1) Kind and understanding	4.13	3.26	(1) Kind and understanding	3.10	2.49
2.	(13) Religious	4.68	4.30	(13) Religious	3.57	3.39
3.	(5) Physically attractive	5.71	3.55	(3) Exciting personality	5.78	3.22
4.	(2) Intelligent	6.17	2.96	(4) Healthy	5.89	2.96
5.	(4) Healthy	6.36	3.19	(5) Easy going	6.19	3.06
6.	(3) Exciting personality	6.44	3.65	(10) College graduate	6.78	3.92
7.	(8) Good housekeeper	6.62	3.20	(9) Good earning capacity	6.81	2.98
8.	(6) Easy going	6.88	3.21	(2) Intelligent	7.02	3.04
9.	(10) Good heredity	7.98	3.62	(12) Good heredity	8.40	3.18
10.	(11) College graduate	8.20	3.73	(7) Physically attractive	8.56	3.17
11.	(9) Wants children	8.39	3.08	(9) Wants children	9.04	3.20
12.	(7) Creative and artistic	8.58	3.22	(6) Creative and artistic	9.04	3.20
13.	(12) Good earning capacity	10.34	2.82	(11) Good housekeeper	10.59	2.76

Note. Values in parantheses reflect rankings obtained by Buss et al. (1990) for males versus females in the international sample.

similarly opposed to the idea of marrying a divorcee with children ($t(263) = -1.76, p > .05$). Men were significantly more opposed than women ($t(263) = -2.59, p < .01$) to marrying a divorcee with no children.

Discussion

In line with Buss et al.'s (1990) international findings, this study confirmed the existence of sex- and culture-related differences and similarities in mate preferences within an Arab Jordanian cultural context. Specifically, Jordanian men and women differed in their judgment of criteria for choosing a long-term mate, in that men were significantly more interested than women in the attribute of good looks, whereas women were significantly more interested than men in those attributes linked to economic ability and commitment. These sex differences were further reflected in the greater preference by men for younger women as mates and, conversely, the greater preference by women for older men as mates, and in women's stronger emphasis on mates being college graduates. Contrary to some accounts (e.g., Eagly & Wood, 1999), but in line with others (e.g., Townsend, 1989), Jordanian participants' preferences for cues to economic resources and commitment were influenced more by participants' sex rather than by their SES. In the cases where SES also had an effect on preferences (e.g., college graduate, ambitious and industrious), the observed effects indicated that higher SES led to greater emphasis on the preferences in question.

This study also demonstrated that Jordanian participants favored what have been shown (e.g., Buss et al., 1990) to be universally desirable qualities, such as love, kindness, and pleasing disposition. In accordance with previous findings for traditional societies, Jordanian participants highly valued characteristically traditional mate attributes, such as religiosity, neatness and refinement, and desire for home and children. In addition to these findings, the present study provided empirical support for the casually observed phenomenon of Jordanians' aversion to marrying a divorcee. Although men and women equally disliked marrying a divorcee with children, men showed more dislike than women of the idea of marrying a divorcee with no children.

Perhaps the most important findings of this study concern the revealed sex differences in mate preferences, particularly men's emphasis on looks and women's emphasis on economics. These differential preferences can be interpreted from an evolutionary perspective (e.g., Buss & Schmitt, 1993), in that these differences reflect evolved adaptive solutions to different problems facing men and women pursuing long-term relationships, prompting men to attend to cues to reproductive capacity (e.g., youth and good looks), and women to attend to cues to economic viability and commitment (e.g. older age, earning capacity, and dependable character). In Jordanian society, which is largely monogamous, the preference for an older mate by women could also serve to pre-empt competition from other

available women. This may especially be the case in a marriage market currently suffering from high rates of unwed women. In line with social exchange considerations (e.g., Kenrick, Groth, Trost, & Sadalla, 1993), an older partner may be more committed to a relationship in which his spouse looks youthful and attractive.

Women's emphasis of mates' resourcefulness can also be attributed to prevalent socio-economic inequalities between the sexes (e.g., Buss & Barnes, 1986). As indicated earlier, however, tests of SES effects in this study did not support this interpretation, and showed sex to be the main determining factor, thus lending additional credence to evolutionary notions. However, this does not mean that socio-economic influences should be completely ruled out. Because the participants in the present study were largely nonworking students, SES was defined in terms of parents' educational levels and family income, whereas the studies revealing a positive relationship between women's SES and preferences for mates with resources had relied either on the participants' own SES (e.g., Luszcz, 2001) or on global measures of women's SES in various societies (e.g., Eagly & Wood, 1999). It would be interesting to see whether Jordanian women, most of whom opt to be homemakers after marriage (Inglehart & Norris, 2003), would still emphasize mates' resources if and when their own SES were to change. However, some pertinent evidence from the US (e.g., Wiederman & Allgeier, 1992) suggests that change in a woman's SES does not necessarily lead to less emphasis on mates' social and economic standing. It may be that a real shift in women's preferences for mates would have to wait for more fundamental changes in the overall economic status of women, as well as in prevalent societal attitudes (see Doosje, Rojahn, & Fischer, 1999) regarding the sexes' 'appropriate' roles, and not just change in status at the individual level (Eagly et al., 2004). Conversely, although Jordanian men did not seem to take their potential mates' resources into account, despite the difficult economic situation many of them currently face (Doumato & Posusney, 2003), shifts in the sexes' preferences do eventually take place (e.g., Buss, Shackelford, Kirkpatrick, & Larsen, 2001) when men's and women's roles, overall, are no longer rigidly delineated, and when women as a group gain more economic power. Moreover, although men may be 'programmed' to seek attractive young women, they often have to make adjustments in their desires, as demanded by a diverse array of environmental factors (Gangestad & Simpson, 2000), including what they themselves have to offer in return.

Although, as predicted, the pattern of results for Jordanian participants was similar to that reported by Buss et al. in the high value given to universally desirable attributes, such as love and kindness, they differed sharply with regard to some other attributes, most notably religiosity. This attribute was ranked second (as opposed to 13th for the international sample) among the 13 ranked characteristics by both men and women. Given that the current sample was made up entirely of college students, the strength of the preference for religiosity in mates was noticeably greater than one might anticipate, even for a conservative society such as Jordan. Although

sociological studies (Inglehart & Norris, 2003) report no significant differences between older and younger generations' social attitudes and values in developing societies such as Jordan, the underlying causes of this strong emphasis on mates' religiosity await explication.

Owing to lack of direct cross-cultural data, one can only speculate as to the implications of the current findings on Jordanians' attitudes toward marriage to divorcees. Pertinent research in the US and Canada (see Daly & Wilson, 1996, for a review), however, indicates that divorced people with children, especially women, are less likely to remarry than those with no children. Moreover, it is reported that the presence of children from previous marriages is associated with an increase in the likelihood of conflict and divorce (Hobart, 1991; White & Booth, 1985). Thus, Jordanian participants' refusal to entertain the thought of marrying a divorced person with children may actually stem from knowledge of troubles arising from such marriages around them. In fact, it is not uncommon to hear a Jordanian woman or her family inquiring whether a divorced man approaching them for marriage has any children. But why the rejection of divorcees with no children? Why is this aversion stronger for men than for women?

One plausible explanation is that, in light of the high value Arab societies attach to the attributes of chastity and virginity (Brand, 1998; El Saadawi, 1980), this attitude may reflect a cultural perception of divorcees as having been tainted. The stronger feelings on the part of men in this regard can be viewed in the context of Buss et al.'s (1990) finding that, although subject to cultural influences, the lack of previous sexual experience in a mate tends to be valued more highly by men than by women (Buss, 1989), possibly due to its evolutionary relevance to men's need for paternal certainty (Dickemann, 1981). Perhaps nowhere is this more true than in Jordanian society, where female virginity and chastity are equated with 'family honor,' whose preservation is of paramount importance.

Strengths and limitations of the present study

A major strength of the present study is that it has simultaneously tested a number of evolutionary and sociocultural notions within a cultural context that had not been previously examined. Thus, the study has contributed to the generalizability of the available database on the issue of mate preferences, and has shed important light on some of the workings of Jordanian society in the area of mate selection. The data obtained from this investigation are useful in pointing out the commonalities as well as the differences between Jordanians, and possibly Arab societies in general, and other cultural groups around the world. Furthermore, the study has, for the first time, tested a phenomenon that had only been observed casually, namely Jordanians' attitudes toward marriage to divorcees. The insights gleaned from the various findings of this study are of particular value at this juncture as Jordanian society undergoes rapid social change, including higher divorce and unemployment rates among a growing population with decreasing resources.

The main limitation of this study is that it relies on a convenience sample

of college students, which may limit the generalizability of the results to the larger population of Jordanians. Another limitation concerns the instrument used to assess mate preferences. In addition to the semantic problems inherent in the translation of research instruments linguistically and cross-culturally (see Smith & Bond, 1998), the current instrument included many items that involved conjunctions (or two qualities) such as 'education and intelligence,' and some items that could be differentially understood, such as 'good financial prospect' (see Buss et al., 2001), any of which could represent a shortcoming to be taken into consideration when interpreting the results. Even so, given that the college population in Jordan constitutes a large proportion of the population of Jordanian youth overall, the population of greatest relevance to the issue under investigation, makes sampling less of a concern. Moreover, the sizable effects revealed in this study, which clearly corroborate previous findings on cultural and sex effects in mate selection, provide ample evidence in support of the generality of the phenomena in question and the suitability of the instrument used in their assessment.

Directions for future research

Further research is needed to examine the mechanisms underlying cross-cultural and sex commonalities as opposed to differences. An important issue in this regard concerns the proximate factors that make men and women from a society such as Jordan emphasize attributes such as religiosity and refinement/neatness so strongly, compared to individuals from many other societies, which de-emphasize these attributes in their preferences for mates.

Another issue that warrants further exploration concerns attitudes toward divorcees, and the relationship between these attitudes and attitudes toward chastity. More specifically, future investigators need to verify whether cultural and sex differences with respect to the attribute of chastity correspond to parallel differences in people's attitudes toward divorce. The answer to this would contribute to better understanding of proximal (e.g., cultural) as well as distal (e.g., evolutionary) mechanisms underlying human mate selection.

Finally, further research is needed to shed more light on the relationship between stated preferences and attitudes and actual mating behavior, in order to assess the extent of environmental and cultural influences in their interaction with presumed evolutionary and biological determinants of mating behavior. In a rapidly changing cultural milieu, as in Jordan, it would be illuminating to see 4 or 5 years hence, for example, how closely the preferences indicated by current cohorts of college students would correspond with actual choices. In this context, an analysis of any possible major changes or adjustments and their causes could provide useful insights into the interplay of biocultural influences on mating behavior, and would further help in assessing the validity of relevant theories.

Conclusion

Taken together, the pattern of results emerging from this study involving a sample of Jordanian men and women adds further support to the validity of previous international findings on human mate preferences for long-term relationships, and attests to the robustness of reported cross-cultural and sex effects in this area of human behavior. Moreover, the results on the question of marriage to divorcees confirm common perceptions of Jordanians' attitudes toward this issue, and extend available evidence on the relationship between mate preferences and some evolutionary and cultural variables.

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