

Women's Mating Strategies

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What does a woman want? The traditional evolutionist's answer to Freud's famous query is that a woman's extensive investment in each child implies that she can maximize her fitness by restricting her sexual activity to one or at most a few high-quality males. Because acquiring resources for her offspring is of paramount importance, a woman will try to attract wealthy, high-status men who are willing and able to help her. She must be coy and choosy, limiting her attentions to men worthy of her and emphasizing her chastity so as not to threaten the paternity confidence of her mate.

The lady has been getting more complicated of late, however. As Sarah Hrdy¹ predicted, we now have evidence that women, like other female primates, are also competitive, randy creatures. Women have been seen competing with their rivals using both physical aggression^{2,3} and more subtle derogation of competitors.⁴ While they are still sometimes coy and chaste, women have also been described recently as sexy and sometimes promiscuous creatures, manipulating fatherhood by the timing of orgasm^{5,6} and using their sexuality to garner resources from men.

The real answer to Freud's query, of course, is that a woman wants it all: a man with the resources and inclination to invest, and with genes that make him attractive to other women so that her sons will inherit his success. Her strategies for attaining these somewhat conflicting aims, and her success in doing so, are shaped by her own resources and options and by conflicts of interest with men and other women. I begin this review by considering women's mating preferences unconstrained by resource limitation or conflicts of interest. The literature has only recently begun to tackle the more interesting problem of how women get what they want in spite of other women who want the same thing and men whose preferences differ from theirs. Most of this paper is concerned with the trade-offs engendered by these conflicts of interest.

A caveat is in order before we explore these issues. The preferences and strategies discussed here are assumed to be evolved psychological tendencies. They are not necessarily conscious strategies, nor are they necessarily de-

sirable, except within the limited framework of fitness maximization. Here, as elsewhere in evolutionary anthropology, the assumption is that natural selection has favored preferences and behaviors that maximize reproductive success. There is nothing in evolutionary theory to suggest that the route to high fitness is necessarily the route to happiness, or that it forms a useful guide for living.

What type of man does a woman want?

Good condition

Women, like men, want healthy mates. We might expect a man in good physical condition to be desirable both because he is likely to be a better provider and because the cause of his good health may be heritable, hence of genetic benefit to her offspring. The trouble, here as always, is how to detect an honest signal of good condition. Such a signal must be one that is not easily displayed by cheaters, either because it is sufficiently expensive that it cannot easily be faked or because failure to display it is a natural byproduct of ill-health. The most intriguing example of the latter is the recent finding that women prefer males with low “fluctuating asymmetry.” Fluctuating asymmetry, the deviation from symmetry in bilateral features that are normally symmetrical, is assumed to result from disruptions in development, as might be caused by parasites or environmental toxins. An individual with the genetic constitution to withstand such environmental insults will show less fluctuating asymmetry, other things equal, and should be favored as a mate.

Gangestad et al. measured the bilateral asymmetry in seven non-facial features in their subjects and took photographs of the subjects’ faces. Subjects with the lowest fluctuating asymmetry were judged to have the most attractive faces, especially in women’s judgments of men.⁷ Men with low fluctuating asymmetry also had more sexual partners, on the average, and had their first sexual encounter at an earlier age.⁸ Although it is not yet known what facial cues women are using to assess fluctuating asymmetry, it is clear that natural selection has shaped female preferences to be acute evaluative mechanisms for good condition in a mate.

Resources

Females in a wide variety of species (insects, birds, mammals) prefer males with resources, and the same is true for humans. Buss’s cross-cultural ques-

tionnaire study of 37 societies showed that women in all of them placed a higher value on the financial prospects of a prospective mate than men did, although the actual values were not as high as might be expected.^{9,10} Women cross-culturally also expressed a greater preference for mates who had attributes likely to correlate with financial success—maturity, ambition, and industriousness. Closer questioning of an American sample showed that women prefer immediate access to resources when seeking short-term matings but place greater value on cues to future resource acquisition when evaluating long-term mates.¹¹

If women act on these stated preferences we would expect wealthy men to have more mates, and there is ample cross-cultural evidence that they do (see Low¹² and citations therein). The importance of resources to women is apparent even in egalitarian societies such as the Ache and the Sharanahua, where the best hunters are able to attract the most sexual partners.^{13–14,15(pp158–165)}

The relationship between wealth and male mating success is consistent with female choice for wealthy males, but it could also indicate differences in competitive ability among men, since a wealthy high-status man is more likely to out-compete his rivals for control over women.¹⁶ It is difficult to disentangle these causes of polygyny, and a discussion of this problem is beyond the scope of this paper. It seems likely, however, that female choice for wealthy, high-status males (or the choice of her kinsmen on her behalf) is an important factor in many polygynous societies. Borgerhoff-Mulder's fieldwork among the agro-pastoral Kipsigis provides some of the best evidence that polygyny is a consequence of women's preferences for wealthy men. In a longitudinal study that followed the marriage histories of pioneers over a 17-year period, Borgerhoff-Mulder¹⁷ showed that women new to the area were more likely to choose as husbands men who could offer them more land (i.e., land available to the prospective wife after division among existing wives). Total wealth (i.e., before division) was unrelated to a man's chances of getting a mate, which indicates that female choice rather than direct male competition is the key to polygyny in this society.

Status

High status men are wealthy men in a wide range of societies, from subsistence pastoralists and agriculturalists^{18,19} to complex stratified states.¹⁶ However, status may hold other attractions as well. The children of high-status men may be better-treated by others¹³ and the traits that led to high status in a woman's mate may be inherited by her sons. Powerful, high-status men may also be more likely to protect a woman from the unwanted

attentions of other men.^{11,20}

It is not surprising, therefore, that indicators of status are highly valued by women. Some of these indicators, such as large size, strength, and maturity, have ancient phylogenetic roots. Women cross-culturally prefer men who are taller and older than themselves.²¹ Tall men in our own society tend to be wealthier, and the politically important “big men” in non-state societies are sometimes described as being physically big as well.¹⁰ Maturity is also associated with higher status, at least in males, and this apparently translates into attractiveness in the eyes of women. Keating manipulated various facial features using the Identi-Kit materials developed for police agencies, and found that women judge men with more mature facial features (prominent jaw, bushy eyebrows, small eyes, and thin lips) to be both more dominant and more attractive.²² The female preference for testosterone-associated features such as broad shoulders relative to waist and hip size²³ is probably also related to social dominance.

The importance of status, irrespective of its associated material benefits, has been shown by Chagnon for the Yanomamo.²⁴ In this economically-egalitarian population, men who have killed enemies have both higher status and more wives. At least some of this appears to be due to their greater attractiveness as mates.

While wealth and status may be attractive to women the world over, societies differ in the ways wealth and status are attained, and the particular traits most desired by women can be expected to vary accordingly. Hill and Hurtado have shown that male hunting success is associated with fertility among forest-living Ache foragers, whereas socio-economic status, but not hunting success, is associated with fertility on the reservation. They infer from this that “Ache women have probably shifted mate choice criteria from favoring good hunters to favoring those who accumulate resources through farming and wage labor.”^{25(p318)}

Conflicts of interest with other women

The ideal man described above is worth competing for, and women may use a variety of weapons to do so. Some methods are direct, such as hitting their opponents or spreading nasty rumors about them. Others are indirect, such as enticing men with the promise of fidelity, youthful attractiveness, and sometimes dowries. What circumstances favor these different tactics?

Direct competition

Daly and Wilson²⁶ have shown clearly that same-sex homicide is overwhelmingly a male affair, as would be expected in a polygynous species where males compete more strongly for females than vice versa. Nonetheless, women sometimes do resort to violence against other women. In a cross-cultural survey, Burbank found that female-female aggression, when it did occur, usually took place between women who were competing for the attentions of a man.²⁷ Co-wives in polygynous societies are often reported to be hostile toward each other, particularly in agricultural, as opposed to pastoral, societies.²⁸ Even in monogamous societies, jealousy among women may erupt into violence.^{2,29}

Accusations of promiscuity or infidelity are a frequent cause of female-female aggression. Campbell, who studied working-class British schoolgirls, found that 73% of her sample had been involved in at least one fight with another girl, usually involving punching, kicking, or slapping.² The most frequent cause of fighting among these girls, and among the youngest of the lower-class teenage girls studied by Marsh and Paton, was defence of a girl's integrity and sexual reputation.^{2,29} A reputation for fidelity is clearly important to a woman who wants to secure a long-term mate, since men are often unwilling to invest in a child not their own. Paternity issues, such as accusations that a rival's children have been fathered by many men, are also a frequent cause of fighting among women on the Venezuelan island of Margarita.³⁰ Even among American college women, derogation of female competitors usually takes the form of attacking the other woman's sexual reputation.⁴

Campbell found that fighting in her British samples was sometimes provoked by jealousy over a particular romantic partner, particularly in her samples of older girls and adult women.² The same was true for the adult urban Zambian women studied by Schuster, where the chief cause of female-female aggression was fighting over a particular man.³ Schuster reports fierce competition in this society for high-status men and the resources they provide, and the attempts by one woman to attract another's man not infrequently resulted in violent aggression and sometimes serious injury.

Readers of this article may be surprised at the level of female aggression reported by these authors, but most readers probably did not come of age in the types of communities these authors studied. What circumstances, then, are likely to make fighting worth the risk? Campbell argues that competitive aggression should be favored where women are able to choose their own mates, where there is a shortage of men, and where there is high

variance in male quality.² High effective variance in male quality should be exacerbated in stratified societies with socially-imposed monogamy (see below), and shortage of males should be most acute in the lower classes of such societies, where male homicide rates are high and more males are in prison. Perhaps, then, the large number of same-sex fights among girls in working-class urban communities is not so surprising.

Yet there are some unresolved questions about this picture. Why should teenage girls be more concerned with their reputations, whereas adult women are more likely to fight about getting and keeping a particular man? And why the concern with a reputation for fidelity in societies where male investment is low? Paternal investment is described as being low in both Zambia and Margarita.^{30,31} It is typically low in poorer communities within complex societies also, so the same may be true of the British schoolgirls. If so, why should these young women be concerned with a reputation for fidelity? Societies with low paternal investment are generally associated with sexual freedom for women,^{32,33} and American women who expect little paternal investment are more likely to flaunt their sexuality than women who expect to find investing men.³⁴ Shouldn't the concern with a reputation for fidelity be more acute among the latter, and lower in societies such as Zambia and Margarita, where paternal investment is low? So why are women in societies with investing males less likely to fight? Two things that merit further consideration in answering these questions are (a) how likely women are to form sexual relationships with another woman's mate, and (b) age changes in what a woman wants and how much paternal investment she expects. I discuss these in turn below.

Adult women, both in the U.S. and in Zambia, are in competition for material resources and the men that provide them. The Zambian sub-elite women studied by Schuster are described as being sexually assertive,³¹ and the matrilineal tradition of most Zambian tribes suggests that paternal confidence would not be high even among more traditional Zambians. The same is likely to be true in the matrifocal communities found toward the bottom of the social ladder in stratified industrial societies. A woman in such a community, therefore, could expect many direct attempts by other women to attract her mate for a short-term relationship, whereas this would be less of a threat to women in communities where male investment is high and women are less interested in short-term relationships. A larger number of sexually unrestricted competitors, rather than just a shortage of desirable men, may lie behind the greater female-female aggression found in communities with low male parental investment.

The fighting over reputation (rather than over a particular man) found

in Campbell's and Marsh and Paton's young adolescent girls may stem from age effects on their economic circumstances and their expectations of male investment. They are presumably living at home and are perhaps less in need of resources than they will be later. They may also be more optimistic about securing the investment of a high-status mate. Schuster describes the Zambian women she studied as being optimistic and "starry-eyed" when young, expecting "to find a handsome, wealthy, educated man and marry, then to go on to life in a big house, with the ideal four children. . ." After a series of disappointing encounters, however, they typically become tough, get themselves a number of boyfriends, and become manipulative toward men. In the words of one jaded Zambian woman, "Why put all your eggs in one basket, especially since nearly all of them are rotten anyway?"^{31(pp66-91)} A concern with a good sexual reputation may have mattered when they were young, but the women have other problems facing them now. Optimism about finding a desirable mate has also been described for young women in Abidjan, Ivory Coast, for whom "youth is a temporary asset that they utilize to the fullest extent. [Among those who] have been befriended by more successful men. . . a particular combination of entrepreneurship and delusion often prevails."^{35(p172)}

A period of mating optimism among young adult women may be a regular feature of female psychology. A woman's reproductive value—hence her chances of marrying upward in the social scale—is at its height when she is young. These odds may favor the type of sexual restraint and concern with sexual reputation that would make finding such a mate more likely. As a woman ages, particularly if she experiences disappointments that suggest she is unlikely to get what she wants, a shift in mating tactics may be expected. Schuster's informants, in other words, may be behaving quite rationally; it would be interesting to know if their experience is widely shared. There is a hint of this shift in Marsh and Paton's teenage girls. They report that the younger ones were ambivalent about their aggressiveness because they were aware that it is not regarded as feminine, whereas the older teens were uninhibited about their aggressiveness and unconcerned about appearing unfeminine.

Indirect competition

The literature paints a consistent picture of what a man wants in a woman: she should be young (at an age when her reproductive value is highest), beautiful (healthy, fertile, and young), chaste (except with him), and rich. She should also (though the evidence here is indirect) be careful not to

threaten his reputation for dominance with his peers. One way in which women compete for men, then, is to give them more of what they want.

Looking youthful. Youth and health are strong indicators of fertility, so it is not surprising that signs of beauty in a woman indicate youth (smooth skin, good muscle tone, etc.) and health.³⁶ Men the world over prefer (and mate with) women who are younger than they are,^{9,21} and women with youthful facial features are judged to be more attractive.^{22,37,38} Women who avail themselves of cosmetics and other beauty aids in a quest for “younger-looking skin,” therefore, are rationally attempting to manipulate evolved male preferences. A figure with small waist relative to hip size (low waist-hip ratio) is also judged to be more attractive, not only by American males and females but by other ethnic groups as well.^{39,40} Low waist-hip ratio, an estrogen-dependent trait, is a particularly effective marker of good female condition because it is associated with both higher fertility and decreased susceptibility to many degenerative diseases.³⁹ Fashion, of course, has found many ways to mimic and exaggerate it.

Appearing faithful. Because men are more willing to invest in offspring when they can be assured of their paternity, women have good reason to reassure them on this score. Mothers—but not fathers!—are more likely to report that their newborn infants look just like Dad.⁴¹ In societies where men invest heavily in their offspring, women are more likely to behave in ways that will ensure greater paternity confidence.^{32,33} Dickemann argues that concern about female chastity reaches a peak in highly stratified polygynous societies, where “large numbers of beggars, outcasts, floater males, and celibates exist at the bottom while intense polygyny in the form of secondary wives, concubines, and harems occurs at the top.”⁴² Extreme concern about female chastity is adaptive for husbands in these societies not only because of high male investment but because of increased competition from a sea of unmated men with little to lose. It is noteworthy that claustration and other forms of sexual control are often enforced by women, not just by men. Clitoridectomy and infibulation, usually viewed as a form of male control over female sexuality,⁴³ are performed on women by women. Mothers willingly put their daughters through these brutal procedures, presumably because without them their daughters will be unable to secure a desirable mate.

Dowry. Men worldwide value female beauty and fidelity,^{9,21} and it is reasonable to expect that women worldwide are concerned to advertise these traits, though to variable degree. Sweetening the pot with economic incentives through dowry, however, is limited to comparatively few societies in the world. Where do we find dowry, and why?

Dowry has been viewed as a form of female-female competition for high quality mates,⁴² and Gaulin and Boster⁴⁴ predict that it should be found where such competition is most acute. What circumstances give rise to such intense competition? When resources held by males differ widely in quality, polygyny is normally favored; yet polygyny itself acts to mitigate these differences because wealthy males have to share their resources among more wives. The fiercest competition among women for desirable men, therefore, should be in societies that are both (a) highly stratified and (b) strictly monogamous. As predicted, Gaulin and Boster's cross-cultural analysis shows that the co-occurrence of stratification with socially-imposed monogamy is the best predictor of dowry,⁴⁴ although it is also found in the upper strata of some extremely stratified polygynous societies.⁴² We might wish to add to the criteria of stratification and socially-imposed monogamy the additional one of degree of female dependence on male investment. Competition for investing mates should be most intense where the payoffs to such investment are highest, hence greater economic independence of women might be expected to discourage the prevalence of dowry payments, even in monogamous, stratified societies. These arguments suggest that the direction of marriage payments may be a useful proxy for the relative strength of male-male vs. female-female mate competition.

Conflicts of interest with men

Because males and females can best enhance their fitness in different ways, conflicts of interest between women and men are, unfortunately, an intrinsic part of the mating game.

A man can enhance his fitness by investing in his children and by maximizing his number of mates, but time and resources devoted to one interfere with the other. These trade-offs lead to variation in male strategies, with the polar types immortalized in the words of Draper and Harpending⁴⁵ as "cads" (low investment males seeking to maximize mating opportunities) and "dads" (high investment males committed to one sexual partner).

The trade-offs facing men define the choices facing women. Should a woman try to secure an investing mate (who may have lower mate value in

other respects) or should she content herself with getting good genes and immediate resources from a non-investing cad? She will have trouble doing both at the same time, because the behavior that attracts a cad (flaunting her sexuality) will put off a dad (who wants evidence of fidelity), and vice versa.

Having it both ways: mixed strategies

Recent research suggests that the difficulty of having it both ways is not always insurmountable. Women may try to get investment from one man while mating with another who is desirable in different respects. Baker and Bellis have found that when married women have affairs, the matings with the “extra-pair” male occur disproportionately during the woman’s fertile period.^{6,46} This finding suggests that one goal of short-term matings for women is to secure “good genes” from another mate, and that women may use deception to play a mixed sexual strategy.

The detailed investigations of Baker and Bellis on human sexual behavior show that this strategy also exists on a more covert level. They have found that “high retention” female orgasms (those that retain the largest amount of sperm) are those occurring between one minute before and forty-five minutes after the male’s ejaculation. Questionnaire data from a large sample of women indicates that those who had extra-marital affairs were more likely to have high-retention orgasms with the extra-pair partner than with their regular mate.⁵ Baker and Bellis argue, further, that non-copulatory orgasms also affect sperm retention, thereby endowing women with considerable flexibility in attaining their reproductive aims. These data suggest, among other things, that males have good reason to be concerned about the sexual satisfaction of their partners.

The good-genes interpretation of short-term liaisons is supported by findings that women place a higher value on physical attractiveness in a short-term partner than a long-term mate.^{11,21} Other reasons that have been suggested for women’s short-term matings are the securing of immediate resources, the promotion of sperm competition,⁴⁶ the evaluation of men as prospective marriage partners,²¹ and enhanced survival of offspring through confusion of paternity.¹

Making a choice: sexual restrictedness

Proximate determinants. Male vigilance limits a woman’s ability to play the mixed strategy described above, and this forces her to make a choice.

Should she flaunt her sexuality to get a high-quality cad (with good genes, immediate resources, and perhaps the possibility of changing his mind later)? Or should she advertise her fidelity and other charms to attract a long-term, investing dad? Gangestad and Simpson have measured how much time and commitment a woman requires before entering a sexual relationship (a variable they term “sexual restrictedness”), and have explored its genetic underpinnings with twin studies. They argue that some of the personality traits underlying this behavior are heritable, and that the genetic variation is bimodally distributed.⁴⁷ This finding is consistent with the notion that the costs and benefits of sexual restrictedness impose trade-offs, and that a woman may be better off trying to maximize one thing or the other.

There is also evidence supporting the role of early learning in sexual restrictedness, although it is difficult to separate this effect from genetic influence. Hetherington did behavior observation studies of “father-absent” adolescents (those whose mothers divorced when they were very young) and compared them to adolescents whose fathers were present when they were growing up and to adolescents whose mothers were widowed rather than divorced. The girls who were father-absent due to divorce behaved in a more seductive fashion towards men than either of the other two groups.⁴⁸ These and related results have been interpreted as evidence of early learning of appropriate mating strategies.^{45,49} If true, the difference between daughters whose mothers were divorced and those whose mothers were widowed suggests that they are learning about men from their mothers, not from father absence per se. The lesson they are learning is presumably “don’t count on male investment—get what resources you can through short-term liaisons with high-status men.” The proximate mechanisms leading to differences in sexual restrictedness may, of course, be both genetic and environmental. Evidence for one does not rule out the other.

Adaptive explanations. What factors favor these different female strategies? Much probably depends on the woman’s other economic options, as discussed below. Much also depends on the likelihood that a woman will be able to secure an investing mate. In a study of undergraduates, I found that women were less likely to flaunt their sexuality and engage in sex with their romantic partners when their expectations of paternal investment were high.³⁴ High expectations of paternal investment (and its associated female mating strategies) should be favored in the following circumstances:

- when the ratio of men to women is high (creating a “buyer’s market” from the female perspective)

- when other women are restricted in their sexuality (so that a man cannot get sexual access without investment)
- when males are able to provide significant investment, and
- when male investment significantly enhances offspring survival.

There is some evidence in favor of these propositions, which I will discuss in turn.

Can males get what they want without having to invest? Low sex ratios make it more likely, because an excess of marriageable women in the relevant age brackets increases competition for males. The rapidly rising birth rate during the U.S. baby boom (1946–1957) created such a situation, since women born during this period were seeking mates from the smaller cohort born a few years earlier. Guttentag and Secord have related this phenomenon to the sharp increase in illegitimate births, unmarried couples living together, divorce, and matrifocal families—all reflections of weakened commitment—that began in the 1960s.⁵⁰ The effects of the marriage squeeze have also been felt by South American (Hiwi and Ache) foragers. Among the Hiwi, a shortage of available women has promoted monogamy and high male investment in spite of relatively low returns to that investment, while the greater availability of women among the Ache has favored males with a low investment strategy. This is true in spite of the fact that fathers have a greater effect on offspring survivorship among the Ache than the Hiwi.⁵¹ This result underscores the fact that a man's investment patterns are shaped as much by his other reproductive options as by the fitness returns on his investment.

Do males have the resources to invest? An inability to provide significant investment due to high unemployment has frequently been suggested as a factor promoting matrifocal families in the lower classes of stratified societies in the U.S. and elsewhere. On the other hand, where there is heterogeneity in the males available to a woman, a man with few material resources may compensate in other ways, such as by providing more direct care of infants and children. This appears to be the case among Aka foragers, where hunters who do less infant holding are more likely than other men to have high status, an influential father, and more brothers.⁵²

Does paternal investment pay significant returns? This question is complicated by the fact that when men acquire and distribute resources, and perhaps even when they care directly for children, they may be doing so more to attract additional mates than to enhance the survivorship of their offspring.^{53,54} This raises the question of whether it is even appropriate

to classify such behavior as “paternal investment.” Irrespective of the father’s motivation, however, the fitness benefits (for the offspring) for a given amount of male effort should be lower when women are able to provide their children with abundant resources without the father’s help. Such a woman should also be less willing to make compromises in the interest of securing male investment. For these reasons, we can expect economic self-sufficiency for women to be associated with higher divorce rates and greater female sexual freedom.

Economic independence from men can come from a woman’s own efforts, from state aid (as in wealthy socialist countries), or from the help of female kin. Irons has argued that “marriage becomes attenuated when female coalitions are more effective at gaining what is scarce in a particular environment than are either individual men or male coalitions.”⁵⁵ The clearest example of this is found in matrilineal horticultural societies, where a woman’s closest relationships are typically with her female kin, and where the women of the kin group are responsible for most of the food production. Matrilineal, matrilineal societies are famous for the independence of their women and for their comparative lack of concern with female chastity.⁵⁶ The same dynamic appears to operate in matrifocal households in lower-class stratified societies. The unreliability of male support in these communities favors investment from maternal kin, particularly the woman’s mother. In one poor black community with little male investment, women explicitly favored teenage childbearing because it enabled the child’s grandmother to be young and healthy enough to take on the main childrearing role.⁵⁷

The causal nature of the relationship between women’s economic independence and low male investment could logically go both ways. Where a woman’s economic independence comes from supportive female kin or from her own efforts in the labor market, it may sometimes be a *response* to low male investment (brought on by low sex ratios or unemployment) rather than a cause of it. The role of women’s economic independence in *causing* lower male investment is perhaps most compelling in wealthy socialist countries such as Sweden, where economic independence is a result of state support. In Sweden “the . . . taxpayers effectively provide what husbands formerly provided, freeing women from their economic dependence on men. . . . Thus, practically no Swedish women are virgins at marriage and hence the value men place on chastity has commensurately declined to a worldwide low.” ^{21(pp68–69)}

Making a choice: Competing against men

Women may find the combination of economic self-sufficiency and an investing, long-term mate to be desirable but difficult to attain. Men should be less likely to invest when returns on their investment are small, as they are likely to be if the mother is economically self-sufficient. In addition, the very traits that favor economic success (maturity, dominance, successful competition with men) may make her less attractive as a mate if they threaten the man's status with his peers.

There is some evidence that mature features in a woman inhibit both sexual interest and investment from men. Women with youthful facial features are, as we have seen, judged to be more attractive. But attractive for what? Cunningham found that a suite of neonatal facial features (large eyes, small nose and chin) as well as two mature facial features (narrow cheeks and wide cheekbones) made women more attractive to his American male subjects. The subjects reported that they would also be more likely to hire women with these features for a job. However, only the neonatal features, not the mature ones, made a woman more attractive for sex and more likely to elicit male investment (monetary investment, physical risk, and self-sacrifice).³⁸ It is not clear whether youthful features have this effect because they signal high reproductive value or because neonatal features elicit caretaking (or both), but the fact that they do suggests that women face a dilemma.

This dilemma is even more clearly seen in the self-deprecating behavior that women often display around males. Women and girls have been found to perform less well when competing against males than when competing in all-female groups, and this has been shown for a variety of tasks, both stereotypically masculine and sex-neutral (see review by Weisfeld⁵⁸). Women also use more subordinate body posture in mixed-sex than in same-sex group discussions,⁵⁹ and girls from coed elementary schools are less likely to overrate their toughness than girls in an all-girls' school⁶⁰ One possibility that I have considered is that this type of behavior advertises a woman's need for investment. Some of my data support this expectation; for example, women who expect little paternal investment are more likely than other women to display their own competence and resources as a way of attracting a mate.³⁴ The hypothesis was not well supported by other data in my study, however, and another plausible explanation is that a woman who is more successful than her mate threatens his own position in the male hierarchy. Economic success may make a woman an attractive mate, in other words, but she must be careful not to threaten her man's status in the process of attaining

it, particularly when other men are watching. Either explanation poses a dilemma between the attainment of economic self-sufficiency and the acquisition of a desirable mate. As with the dilemma about sexual restrictiveness (should she flaunt sexuality to attract many short-term mates or should she advertise fidelity to attract a long-term one?), a woman's optimal strategy here may depend on both her chances of finding an investing mate and on her own resources and competitive ability.

Conclusion

We have learned a great deal in the last decade about what women want in a mate. It is clear that women value wealthy, high-status men in good physical condition, both for the resources such men can provide and for the genetic quality that they can give the woman's offspring. Women particularly value high-quality men who are willing as well as able to invest.

There has been much less research on how women secure such a mate in the face of competition from other women and conflicts of interest with the men they seek. We have known for a long time that one way women compete with other women is by making themselves more attractive. We are now learning that women also compete more directly, and that physical aggression is part of the repertoire. The challenge in both cases is understanding when women choose one competitive "weapon" over another. Thus far, it appears that physical aggression may be favored in populations where a shortage of desirable mates exists together with an abundance of women desirous of short-term liaisons with a variety of men.

Women face conflicts of interest with men also, since men are better able to maximize their reproductive success by mating with a variety of mates. In search of this aim, men will be attracted to youthful, sexually unrestricted women, yet they may be unwilling to invest in a woman's offspring unless she can assure him that the children are his. He will be attracted to an economically independent woman but he may be less likely to invest in her, and he will not want his status with his peers to be threatened by her pursuit of economic success. Women sometimes try to get around these trade-offs by playing a mixed sexual strategy, but male vigilance places limits on this ability and imposes choices. Should a woman compete openly with men (which will enhance her economic independence but may make her less desirable as a mate)? Should she flaunt her sexuality (which will attract males but at the risk of losing a male's continued investment)? Here, too, the challenge is understanding the factors that favor one strategy over the other. In gen-

eral, it appears that a woman's optimal strategy will be affected both by her other economic options and by her expectations of paternal investment. There is evidence that the likelihood of male investment is affected by the sex ratio, the sexual restrictiveness of other women, the economic position of the men she is able to attract, and the payoffs to male investment. We are only just beginning to understand how women's strategies are shaped by these factors, and clarifying this remains the primary challenge for future research.

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