



For better or worse? How we pick our partners

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According to a well-known T-shirt slogan, 'sex is good for one - but it's even better for two.' The problem is this requires the co-operation of another person.

How do we choose a mate? The principles of beauty and sex appeal described in my previous lecture are important and there are many other traits like intelligence, sense of humour, kindness and good temper that are fairly universally valued. Ideally, we would all like a stunningly beautiful and perfect partner, but that is seldom practical and so prioritisation, compromise and trade-offs are necessary.

Of course, men and women have different shopping lists (Davis, 1990). Women place a higher value on attributes that favour provision of resources (things like wealth, social status, creativity, intelligence) and supportiveness (kindness, honesty, loyalty, and generosity). Men put a higher premium on youth and sexual desirability. Hence a common trade-off is for an older, socially powerful man to date or marry a younger, more beautiful woman. The reverse trade-off (rich older woman with hunky young man) is much less common and rather unstable.

The term 'trade-off' implies that an economic market operates in the sphere of human mating. This is indeed the case. It appears that we assess our own mate value and seek a partner who measures up to it, providing equity (Li et al, 2002). Studies of lonely heart advertisements reveal that women who describe themselves as physically desirable set higher criteria for the sought partner with respect to financial and occupational status. Reciprocally, the more resources a man offers the greater are his requirements with respect to physical attractiveness. Men with few resources stress domestic virtues and willingness to 'commit' (Bereczkei, et al, 1997). Implicit in all this is the concept of fair exchange.

For both men and women, physical attractiveness is the primary gate-keeper, minimum standards being set in accordance with the value set upon oneself. This first screening in the mating market may occur very quickly, even within the first 30 seconds according to the speed-date research (Kurban & Weedon, 2005). If partners are rejected at the first-pass filter (immediate impression) they will never get to be appreciated for their finer virtues.

Even at the stage of first impressions women are more discriminating than men (Wilson, Cousins & Fink, 2006). This is because errors in mating are more 'costly' for women, as described by the principle of parental investment (Trivers, 1972). Women 'invest' more in parenthood than do men. Pregnancy takes a woman out of circulation for a year or so, whereas a man can cultivate oats in one place while simultaneously sowing wild ones elsewhere. It follows that women are generally more selective about the genetic quality of their partners and more oriented toward long-term considerations. The difference between men and women is typified in a little exchange in Woody Allen's film *Annie Hall*. She: 'sex without love is an empty experience'. He: 'Yes, but as empty experiences go it's one of the best.'

Both men and women prioritise physical attractiveness for a short-term sexual fling and shift their criteria towards other attributes such as personality and intelligence when a long-term romantic relationship is considered (Regan et al, 2000). In fact, the main difference between men and women may be the likelihood of seeking a short-term vs long-term relationship in the first place, rather than behaviour displayed within each of these two modes (Li & Kenrick, 2006). There also seems to be a tendency for successful men to favour short-term liaisons, while less successful men, perhaps having less option, go for long-term strategies (Landolt, Lalumiere & Quinsey, 1995).

If people are asked how they choose their partners they often claim they are looking for someone complementary to themselves, citing the popular notion that 'opposites attract' (Dijkstra & Barelds, 2008). But this is not the way they actually behave. In practice, people tend to choose 'birds of a feather' (partners similar to themselves). What is more, such relationships are generally happier and longer lasting. Among the traits on which assortative mating has been documented are physical attractiveness, body build, height, intelligence, personality, attachment style, religion, politics, interests and values. This is not just a matter of growing to be alike over time, the similarity is almost as strong among newlyweds (Watson, et al, 2004). Any increases in similarity over time that are observed are mostly down to 'chalk and cheese' couples breaking up. As we shall see, certain differences are known to be 'deal breakers'.

Where there is a typical difference between men and women we are usually better off with a partner who differs from ourselves in the standard direction. Height is a good example. Men are on average about 5 inches taller than women, so people's preferences are adjusted in accordance with their own physique (Pawlowski, 2003). Tall men mate with women who are tall, but not as tall as themselves, and the same goes for shorter people. The ideal seems to be a ratio of about 1.09. This makes the Beckhams about right at 6ft & 5ft 7ins. The reversal of this (e.g. Tom Cruise and Nicole Kidman) is unusual and unstable. The same principle applies to many gender related traits like personality dominance and sensitivity and it may be partly this that validates the complementation principle in the minds of some people.

Another trait where similarity applies, but with a standard difference, is age. The tendency for men to seek younger partners and women to prefer older men is well known (Kenrick & Keefe, 1992). It occurs because the prime commodity values of women (fertility) and men (resource provision) peak at different ages. The pattern is seen in all cultures and throughout history, so it is not surprising that it has reproductive significance. A study of 10,000 Swedish men and women who did not change their partner between the birth of their first and last child found that couples in which the man is around 4-6 years older than the woman are the most fertile (Fieder & Huber, 2007). Couples with this kind of age-gap are also least likely to divorce. Canadian statistics derived from six million married and divorced couples in 1994 showed that the lowest divorce rate occurred where the husband was six years older than the wife. Data from 1500 Swiss couples showed that when a wife is five or more years older than her husband there is a three-fold increased likelihood of divorce compared to same-age couples (Cao et al, 2009).

The priority of the similarity principle in partner choice has led to the development of a Compatibility Quotient (CQ) that predicts the long-term prospects of a couple (Wilson & Cousins, 2003, 2005). The CQ compares the separate answers of two people on a series of questions such as 'How important to you is sexual fidelity?' and 'How do you think domestic chores should be allocated?' If one person demands sexual exclusivity throughout life and the other wants an open 'swinging' relationship there is likely to be trouble down the line. If one believes household tasks should be shared equally while the other thinks women should do the lot, then again conflict is inevitable. Other issues tapped include body build and attractiveness, intelligence and education, personality and life style, religious and political attitudes, and views about sexual permissiveness, children, money and tidiness.

The CQ test consists of 25 items spanning such areas of potential conflict that are answered independently by two potential partners. The sum of all discrepancies is calculated and referred to a 'normal' distribution like that of IQ scores, such that scores above 100 indicate compatibility, while those below suggest a poorer prognosis. Validation studies have shown that happy couples have higher CQs than those who are dissatisfied. Since CQ scores can be calculated for pairs of people who have not yet met, the method is ideal for on-line dating but it also applies to pre-nuptial counselling and marriage guidance. Given the importance of stable relationships both to society and to individual happiness this seems worthwhile.

What are the origins of the similarity principle in mating? Various ideas have been mooted such as propinquity - mating with people who live and work close to us and are therefore likely to be similar. After all, 'mating requires meeting' and the 'one and only' usually lives within driving distance. The fact that we have more successful relationships with people who share our same interests and values might be attributed partly to the amount of time spent together ('those who play together stay together').

Egotism is also involved. We feel more comfortable with people who share our physical and attitude traits because they validate us. An overweight person will be less fearful of criticism if their partner is fat. If they vote for the same politicians they are 'sensible'; if they pray to the same god they are 'true believers'. There is evidence that people with alliterative first names (like Barry and Barbara) pair off more than would be expected by chance, as do people with similar surnames. Across three Southern states in the US in the years 1809-1920 there were 198 Smith-Smith marriages, 125 Jones-Jones marriages, but only 62 Jones-

Smith pairings. A study in which details of potential partners were arbitrarily coded so as resemble the participant's birthdate (or not), found that those with a code resembling their own birthdate were judged more likeable (Jones et al, 2004). Apparently we are attracted to people who remind us of ourselves.

Part of our preference for similar mates comes from genetics. Rushton & Bons (2005) studied 174 identical (MZ) and 148 non-identical (DZ) twin pairs, as well as their best friends and spouses. Assortative mating was confirmed for many traits (e.g., occupation .74, political views .60, education, .55, religion .41, cognitive structure .29). In other words, people were pairing off with similar others on these traits. But most interesting was the finding that MZ twins chose partners (& friends) that were more similar to those of their co-twins than did DZ twins. This was especially so with respect to the most heritable traits. Variation in partner choice was calculated as being 34% genetic, 12% shared environment (e.g., family values) & 54% unique environment (e.g., being at right place/right time). The authors argue that choosing genetically similar partners helps to perpetuate one's own genes.

The mechanism by which we detect partners who are genetically similar is not entirely clear, but one possibility is early experience of close relatives. The story of Oedipus, the man who unwittingly married his mother, has fascinated many intellectuals over the centuries, including Wagner and Freud, who sensed a profound truth in the myth. When fostered individuals meet siblings after a long separation they sometimes experience a sexual attraction so intense that they cannot resist incest (Greenberg & Littlewood, 1995). This observation supports the idea that genetic similarity is a powerful force in mate choice and modelling our partner on a template derived from viewing our parents at some critical period in childhood is a likely cause.

There is strong animal evidence for parental imprinting of adult sex targets. For example, Kendrick, et al (1998) showed that kids reared by a sheep mother and lambs reared by a goat grow up to fancy the 'wrong' species, the effect being most noticeable with males. Similar effects have been found with humans. Our partner is more likely to match our opposite-sex parent than our same-sex parent in age, race, dominance, eye colour and hair colour and judges are able to match a man's wife with his mother-in-law beyond chance (Wilson & Barrett, 1987; Little et al, 2003; Bereczkei, 2004). However, it appears that the relationship (good or bad) with the opposite-sex parent moderates this relationship to some degree. Women who rate their childhood relationship with their father as positive show a stronger match to their partner (Wiszevska, et al, 2007) and a parallel effect has been observed for men.

If we fall in love with an image of our parent, how is it that few of us make the mistake of Oedipus and pursue close relatives sexually? Most cultures and religions have powerful taboos against incest but it is doubtful that these are much needed. The parent on whom we founded our sexual template has grown much older by the time we are sexually mature and so fits the template rather badly. As for our siblings, we are protected from desiring them by a process of 'familiarity breeds contempt' (called the Westermarck Effect after the Finnish anthropologist who identified it). Animals generally do not like to mate with others they have been reared with, regardless of whether or not they are genetically similar, but this brake is not applied if they are reared apart.

Smell may help to protect us from excessive inbreeding. The major histocompatibility complex (MHC) governs our immune system and is detectable through smell. Animals generally prefer to mate with individuals of differing MHC, thus promoting hybrid vigour by broadening the immune spectrum of their offspring. There is some evidence that this applies to humans also but women, who are generally more smell-oriented, vary with their breeding mode. When mid-cycle, not pregnant, not on the pill and engaged in extra-pair mating, they prefer individuals of dissimilar MHC. When not breeding and in need of security and support (e.g. already pregnant or end of cycle) they tend to prefer familial smells (Havlicek & Roberts, 2009). The use of fragrances may disrupt human mating behaviour, although there is some evidence that women choose perfumes that amplify their own natural, biological signals (Milenski & Wedekind, 2001).

We have discussed some of the factors, both rational and mysterious, that determine mating choices. We now turn to the forces which operate to tear relationships asunder. We have seen that dissimilarity in key areas can cause relationships to come unstuck. But there are other powerful instincts that operate to threaten marriage, such as boredom and the genetic desire for partner variety. Monogamy is not totally natural in humans and lifelong marriage not necessarily ordained.

There may some truth to the idea of a 'seven year itch', popularised by the 1950s Marilyn Monroe comedy film. A MORI poll of nearly 1000 married British adults, conducted for Reader's Digest, asked 'Have you ever wished you could just wake up one morning and not be married anymore?' One in five wives said yes, compared with one in seven husbands and these figures doubled if the woman had children or was

working. Peak discontent occurred between years six and nine of marriage, when a third of respondents answered yes (again more women than men).

The mode for actual divorce occurs earlier than this, averaging about 4 years across cultures. Fisher (1989) reckons this fits with an ancestral adaptive strategy to remain pair-bonded at least long enough to raise an infant through the period of lactation. Most people who divorce do so quite early, especially childless females whose modal divorce age is 25-29. Divorce is initiated mainly by females at younger ages, husbands not catching up till age 60. Men seek divorce primarily on grounds of adultery while women more often cite abandonment and lack of support (Buckle, Gallup & Rodd, 1996). These data may be interpreted in terms of 'resale value' and the central priorities of men and women.

Some degree of wanderlust seems instinctive in males in accordance with parental investment theory. A farmer needs only one bull and one ram to ensure that all his cows and sheep are fertilised and the human residue of this variety-seeking trait is evident (c.f., Tiger Woods). Such behaviour is promoted by the male hormone testosterone, particularly its prenatal effects on the brain, and its adaptive significance is clear. Males who succeed in multiple matings pass more genes to the following generation, including a similar inclination toward sexual variety in their sons.

However polygyny is not the only strategy that can benefit males, hence there are variations in the novelty drive. Proneness to infidelity in men connects with a pituitary hormone called vasopressin. Transplanted from a promiscuous meadow vole, a gene controlling vasopressin levels can render the normally monogamous prairie vole unfaithful. In human males, a vasopressin receptor gene has been identified that seems to link with bonding and relationship problems (Walum et al, 2008). According to Taylor et al (2010), vasopressin is a bonding hormone similar in chemical structure to oxytocin but regulated by testosterone and therefore may be thought of as a male equivalent.

It should not be imagined that only men have cheating instincts. There is increasing recognition of the fact that females also have motives for 'extra-pair copulation'. One of these is fertility insurance. Birkhead (2000) cites the case of a man who went for a vasectomy after his wife gave birth to her third child only to discover he had a congenital defect that meant he could not have been the father of any of them. Evidence for the fact that human females are naturally promiscuous to some degree comes from comparisons of testicle size across different primates. Where there is little sperm competition the males have less incentive to out-flood their rivals. Thus Gorillas, who guard their harems by massive strength, have small testicles because they do not need to produce so much sperm. Female chimps are famously promiscuous, hence the males need large testicles. Human males have midsized testicles (.8% of body weight), suggesting moderate promiscuity among their ancestral females.

Once again, there are individual variations and this is a heritable trait. A study of 1600 female twin pairs at St Thomas Hospital (Cherkas, 2004) found that 22% had been unfaithful to a long-term partner and that identical twins were twice as likely to be concordant (compared to 1.5x for non-identical twins). This suggests that female infidelity is 41% genetic. The number of sexual partners reported by the women was also partly genetic (38%).

Apart from actual infidelity and the pursuit of 'good genes', women may benefit from flirtatious behaviour because it keeps their partner on his toes. The male who is inclined to stray may feel he has to stay around to guard his female against the attentions of intruders. In recent years, mate poaching and mate retention have become important topics in evolutionary psychology. In mate poaching, people advertise the characteristics that are most important to the opposite sex. Females tend to use displays of physical attractiveness (e.g. dressing provocatively) while men use displays of dominance and resources (e.g. expensive gifts). Both sexes may also use a sense of humour, flattery, befriending the established couple and awaiting an opportunity, or getting the partner drunk. Strategies of mate retention, used by both females and males to varying degree, include vigilance, appearance enhancement, concealment of the mate, monopolising their time, signals of possession and public commitment, threatening infidelity, punishment for infidelity, being derogatory about competitors or offering them violence (Miner & Shackelford, 2010).

Jealousy is an emotion that has evolved for mate retention purposes and its focus is different for men and women. Men are more concerned about sexual infidelity (since their paternity is less guaranteed), while women are more upset about emotional infidelity (which would threaten their relationship). The biological underpinning of these differing jealousies is evidenced by correlations within-sex with the 2D:4D finger ratio, a marker of prenatal testosterone (Park et al, 2008)

Men and women also differ as regards their motives for infidelity. Men most often do it 'just for a change', while simultaneously reporting their marriage as happy. Notoriously, they want to 'have their cake and eat it'. Women report more complex reasons for entering into affairs and usually say their marriage is unhappy. They may be 'paying back' their husband for his transgressions, find their lover more attentive or superior in some way to their husband, or are testing the water elsewhere with a view to moving on (Wilson & McLaughlin, 2001).

On the other hand, unfaithful women sometimes seem just to be seeking good genes, without any intention of changing their provider. Women are more likely to dress provocatively and to have sex with a lover when in the fertile phase of their cycle, but only when they have a long-term partner at home (Baker & Oram, 2000). Women without a partner show no such variation. The implication is that until a woman has a permanent partner behind her she is less likely to pursue one-off sexual adventures.

So women also like to have their cake and eat it. According to the famous aria from Verdi's *Rigoletto*, 'La donna e mobile' ('Woman is fickle'). This may be because women have evolved different inclinations according to the phase of their cycle, so they can get the best of both worlds - good dads at one time and good genes at another. This complex agenda is largely hidden and baffling to the men in their lives (Haselton & Miller, 2006).

The Victorian psychologist William James once dreamed that he had discovered the secret of the universe. Fearing that he might forget it, he woke up long enough to jot it down on a piece of paper at his bedside. When he awoke he reached eagerly for his note to see what he had written. It read: 'Higgamus, hoggamus woman's monogamous - hoggamus, higgamus men are polygamous'. Although not quite the secret of the universe, there is a kernel of truth in it. Modern evolutionary psychology teaches us that men and women are engaged in a kind of 'arms race', with cryptic strategies for choosing, attracting, retaining, or disposing of mates. These overlap and are equally devious, and they differ according to whether we are in short or long-term mating mode. All are geared to maximising the chances that our genes will be passed to the next generation.

As Schopenhauer put it in 1819, 'the final aim of all love intrigues, be they comic or tragic, is really of more importance than all other ends in human life. What it all turns upon is nothing less than the composition of the next generation.'

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