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From Flings to Forever: The Evolutionary Psychology of Short-Term and Long-Term Mate Preferences

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Abstract

Human courtship navigates an intricate balance between fleeting liaisons and enduring partnerships. Rooted in evolutionary biology and psychological adaptation, mate selection operates not as an arbitrary cultural artifact, but as a strategic system designed to resolve distinct ancestral challenges. Drawing upon parental investment theory and Sexual Strategies Theory, this paper investigates the cognitive and behavioral architecture governing short-term ("flings") and long-term ("forever") mating orientations. We examine how asymmetries in minimum obligatory parental investment drive sex-differentiated criteria across temporal contexts, why physical cues signaling developmental stability and fertility take precedence in transient encounters, and how mutual cooperation, resource investment, and parental commitment ascend in enduring pair-bonds. Specifically, while ancestral females shouldered metabolic gestation and lactation demands, males faced minimal obligatory somatic costs, establishing profound differences in casual mating thresholds. In brief encounters, male selective standards diminish to prioritize immediate fertility markers and accessibility, whereas female strategies remain discerning, balancing immediate material utility, mate assessment, and genetic vigor against reproductive liabilities. Conversely, enduring pair-bonds shift the selective calculus toward mutual interdependence, where paternal certainty, mutual emotional devotion, cooperative labor, and sustained parental investment dictate fitness outcomes. Under prolonged horizons, selective criteria converge substantially: kindness, dependability, and intelligence emerge as universally valued baseline attributes across sexes. Finally, we integrate contemporary empirical findings regarding trade-offs, budget allocations, and modern mating ecology to illustrate that human mating systems are fundamentally flexible, strategic repertoires. Utilizing microeconomic necessity-versus-luxury paradigms, we demonstrate how individuals negotiate cognitive budgets under real-world constraints, prioritizing non-negotiable minimum phenotypic or socioeconomic

thresholds before expending resources on secondary preferences. Modern digital platforms and shifting socioecological landscapes further demonstrate how ancestral cognitive algorithms respond flexibly to local partner availability, operational sex ratios, and socioeconomic resource distributions. Ultimately, human mating emerges not as a rigid biological script or a disconnected social invention, but as a dynamic, dual-mating architecture calibrated across evolutionary time.

Keywords: Evolutionary psychology, Sexual Strategies Theory, parental investment, mate preferences, short-term mating, long-term pair-bonding, adaptive behavior, mating ecology.

Introduction

Courtship behavior of *Homo sapiens* is one of the most complex behavioral patterns in nature. It is neither purely monogamist nor completely promiscuous — instead, humans occupy a rare middle ground of strategic pluralism (Gangestad & Simpson, 2000). Throughout the human history, people have both engaged in long-term pair-bonding with heavy paternal investment and cooperative labor, as well as engaged in an opportunistic, short-term sexuality (Buss & Schmitt, 1993).

For the majority of the twentieth century, social sciences focused on the proximate processes of socialization — which means that preferences for status, youth, beauty, or the domestic role were considered to be the results of local patriarchal socialization, an arbitrary normative tradition, or economic role segregation (Eagly & Wood, 1999). While social learning undoubtedly shapes the proximate desires of a person, the existence of universals across different cultures — even the ones with very different social organization — seems difficult to explain (Buss, 1989; Schmitt et al., 2003). For all these various societies, from small-scale foraging tribes to the industrial postmodern ones, the psychological structure of attraction seems to have some regularities that cannot be explained by random social influences.

Evolutionary psychology attempts to provide a satisfying explanation for these universals by focusing on the ultimate causes. Mating preferences are viewed as evolved psychological mechanisms (EPMs) that have a special function and were formed by directional selection processes to solve specific adaptive problems experienced by hominids (Tooby & Cosmides, 1992). These problems were different for each sex and each reproductive strategy, and the differences primarily came down to two factors — the biological sex of a person and the expected temporal investment in a relationship (Buss & Schmitt, 1993). By analyzing the differences between the “flings” and the “forever,” this paper will attempt to detail the algorithm of preference within these two strategies and the evolved anatomical and psychological solutions that are used to solve the challenges posed by each.

Theoretical Foundations

Trivers' Theory of Parental Investment and Sexual Selection

The modern evolutionary psychology mating preferences are largely built upon the work of Robert Trivers (1972), who described the fundamental economic law that describes the sexual behavior of all mammals. He extended the understanding of natural selection and sexual selection by emphasizing the importance of parental investment as a mediating variable. By parental investment, Trivers (1972) meant any expenditure of resources (temporal, energetic, and material) that a parent makes that benefits their offspring and, therefore, evolutionary reduces the parent's ability to invest in other offspring.

The most important law described by Trivers (1972) is that, in any relationship where the parental investment of the two is different (which, in mammals, almost always the case), the one who has more parental investment will be sexually selective. This leads to the appearance of two distinct strategies: (i) for the sex that requires less parental investment, their potential reproductive success is limited by the probability of copulation; they compete intensely for mates and are not picky about whom they mate with; (ii) for the sex that requires more parental investment, their reproductive success is limited not by copulation but by the ability to provide care; therefore, they are very selective about mates and very picky in general. They compete not with members of their own sex but with environmental challenges for each potential mate's resources.

Humans are a textbook example of this law (Kheng et al., 2021). The female's minimum parental investment is 9 months of pregnancy, additional energy and time for breastfeeding, and the risk of complications during pregnancy, birthing, and breastfeeding. Moreover, historically, breastfeeding was quite a long process in humans, up to 4 years, due to the unique physiology of human milk. During this time, a woman cannot have another child. Finally, the male's minimum parental investment, theoretically, is the ability to have functional gametes and a brief copulation (Symons, 1979). Therefore, from the evolutionary perspective, females are much more selective about mates and much more willing to invest in a single offspring. Males, however, can theoretically have multiple offspring without additional parental investment. They compete for mates for females and are not picky about whom they mate with. However, for each male, his offspring are an additional challenge to survive and thrive, and he must invest some proportion of his resources into their upbringing. Therefore, an interesting property of the human parental investment is that it appears to be highly dependent on the expected temporal investment in offspring, and humans have evolved a complex psychological mechanism around this.

Sexual Strategies Theory (SST)

In the humans, Robert Trivers' (1972) evolved strategies described either monogamy or promiscuity, but rarely anything in-between. Both sexes have a wide range of potential strategies.

In order to understand these strategies and the value components that are prioritized when people are willing to invest more resources in a relationship, Buss and Schmitt (1993) proposed Sexual Strategies Theory (SST). SST claims that neither men nor women are predisposed to any one particular strategy of either short- or long-term mating, and in accordance with their anatomy, they are capable of a wide range of investment levels and tactical variations depending on context, social opportunity, and the perceived value of a mate.

Table 1

Adaptive Problems and Strategic Solutions by Sex and Temporal Context

Biological Sex	Short-Term Mating Context ("Flings")	Long-Term Mating Context ("Forever")
Male Strategy	• Maximizing partner variety and copulatory volume • Identifying immediate phenotypic fertility markers • Minimizing commitment costs and investment liabilities • Overcoming female sexual coyness and selectivity	• Mitigating paternity uncertainty (guarding fidelity) • Assessing female long-term reproductive value (youth) • Evaluating maternal dedication and parenting ability • Establishing cooperative domestic and economic synergy
Female Strategy	• Securing superior heritable immune competence ("good genes") • Extracting immediate provisions, defense, or social alliances • Evaluating prospective mates for long-term via ability • Facilitating mate switching or securing backup mates	• Ensuring sustained resource holding potential and investment • Securing durable physical protection for self and offspring • Securing high paternal commitment and reliable effort • Evaluating emotional dependability and character stability

Note. Synthesized from Buss and Schmitt (1993), Gangestad and Simpson (2000), and Kheng et al. (2021).

As Table 1 demonstrates, an adaptive strategy often proves to be a maladaptive gamble in a different temporal realm. A man seeking a long-term partner yet applying the indiscriminate criteria appropriate to a short-term partner risks wasting years of his resource capital on another man's child. Likewise, a woman prioritizing status and devotion in a short-term, one-night stand might misdirect her selective attention away from immediate genetic vitality. The mechanisms that guide pair-bonding must therefore be sensitive to the relevant time frame.

The Strategic Pluralism Model

Gangestad and Simpson's (2000) Strategic Pluralism Model (SPM) extends these evolutionary ideas by postulating how mate preferences and strategies might vary according to individual circumstances. SPM incorporates the idea of phenotypic trade-offs (see Section 1.3), and assumes that human mating behaviors are context-sensitive in an evolutionary adaptive sense. The evolutionary history of humans includes wide-ranging variation in the prevalence of pathogens, danger, and resource distribution; therefore, the adaptive value of alternative reproductive tactics would also vary depending on these factors. For instance, in communities where pathogen prevalence was a significant threat to health and survival, having genes that conveyed some resistance to infection became advantageous. Therefore, selection pressures favored short-term extra-pair copulations to acquire such genes, even with the loss of paternal support. In contrast, in communities where a stable food supply, favorable disease conditions, and predictable resource distribution favored pair-bonding as a better strategy to maximize fitness, selection acted to suppress an individual's natural inclination toward extra-pair copulations, thus favoring long-term, monogamous pair-bonding. Humans clearly possess a repertoire of behavioral options, each adapted to meet the demands of different social and ecological conditions.

The Architecture of Short-Term Mating ("Flings")

Short-term mating refers to casual sex, one-night stands, brief affairs, or any kind of uncommitted coupling. It is a domain in which the trade-offs between genes, parental investment, and short-term parental care are laid bare. In short-term mating, the costs of prolonged parental care are foregone, so mate choice criteria are restricted to immediately observable traits.

Male Short-Term Psychology: Quantity, Accessibility, and the Coolidge Effect

Since the capacity for male fertility is limited to the number of mates that can be inseminated (Symons, 1979; Buss & Schmitt, 1993), ancestral men would have been under evolutionary pressure to seek extra-pair copulations with as many females as possible when the opportunity and access arose. This has left its imprint on the psychology of contemporary men in such ways as:

Threshold Relaxation. In a short-term mating context, the selection criteria that men apply to potential partners are significantly relaxed. While men hold firm standards for desirable attributes in a long-term mating partner (intelligence, personality, and status), these criteria are significantly relaxed for a short-term partner (Kenrick et al., 1990). Men are more likely to prioritize a partner's physical accessibility and receptivity over assessments of her character.

Sexual Variety Desires and the Coolidge Effect. It is well-documented cross-culturally that men desire more sexual variety in their lives than do women (Schmitt et al., 2003). In fact, when asked, men report wanting substantially more sexual partners over their lifetime and greater willingness to engage in sexual activity with a new partner than do women. This pattern has been related to the Coolidge effect (Dewsbury, 1981), in which the ability of males to copulate with a new female is not hindered by the refractory period following copulation with another female.

The Sexual Over perception Bias. According to Error Management Theory (Haselton & Buss, 2000), humans have evolved to make cognitive errors systematically depending on the relative costs and benefits of different potential outcomes. When it comes to short-term mating opportunities, men have evolved a sexual over perception bias. The costs to men of a false negative (falsely believing that a female is not interested in them) far outweighed the costs to them of a false positive (inappropriately trying to attract females who have no interest in them). As such, men are biased toward interpreting ambiguous social cues as sexual interest from females, allowing them to maximize their mating opportunities.

Female Short-Term Psychology: Genetic Quality and Strategic Utility

Short-term mating among females is paradoxical because an ancestral female would have risked pregnancy (and attendant costs) for months without any guarantee of male support from an opportunistic encounter. However, evolutionary theorists have identified a number of potential fitness benefits that might explain the evolutionary origins of female short-term mating:

The Good Genes and Ovulatory Shift Hypotheses. The evolutionary basis of short-term mating among females is thought to be related to the acquisition of desirable "good genes" that would enhance the viability of her offspring. This is most consistent with the good genes hypothesis (Gangestad & Thornhill, 2008), which posits that females are more likely to select extra-pair mates who have genes that would improve their own genes (e.g., by increasing disease resistance). The immune competence handicap hypothesis (Zahavi, 1975) suggests that females are attracted to exaggerated sexually dimorphic traits (such as masculine faces, deeper voices, and broad shoulders) that act as an index of the underlying immune competence (ability to resist infectious diseases). In practice, female mate preferences vary cyclically across the menstrual cycle (Gildersleeve et al., 2014). Studies have found that women's self-reported preferences for

masculine facial structure, symmetry, masculine voices, and dominance are greatest during the fertile window of their cycle, and least during the low-fertility days of menstruation. In general, women are most likely to consider masculinity and symmetry desirable traits in a short-term (but not necessarily long-term) mating partner during the ovulatory phase of their menstrual cycle (Penton-Voak et al., 1999; Gangestad et al., 2007). During the low-fertility phase of the cycle, women's preferences shift towards more socially desirable characteristics.

The Mate Switching and Assessment Hypothesis. Short-term mating also provides females with an opportunity to switch mates (Buss et al., 2017). A brief encounter allows the female to assess the potential for a new, more suitable mate to emerge and provide superior parental resources. She can also use this as an opportunity to escape from an abusive or incapacitated primary partner, thus reducing the costs and risks of relationship dissolution (by finding a new mate already willing to have sex and share in the costs of raising a child).

Immediate Resource Extraction. Short-term mating also allowed ancestral females to gain access to resources when they were desperate or available. Such opportunistic access might have been gained from dominant males in the local community by receiving food, alliance, and protection by having sex with them (Buss & Schmitt, 1993). In a short-term mating context, females are likely to be most concerned with whether the male is willing to provide them with access to current resources (e.g., meals, gifts, and protection), rather than judging the partner on an overall assessment of his phenotypic quality.

The Architecture of Long-Term Pair-Bonding ("Forever")

While short-term mating capitalizes on temporary fitness differences between partners, long-term mating ("forever") is the foundation of human socio-ecology. The evolution of the human pair-bond has been a key innovation in hominin evolution that has favored the survival and flourishing of encephalized, highly altricial offspring through multi-generational family support networks (Geary, 2000).

Universal Essentials: The Convergent Domain

When evaluating prospective lifelong mates, the stark sex differences typical of casual encounters attenuate considerably. Long-term commitment requires continuous collaboration across decades; consequently, both sexes prioritize non-negotiable psychological and moral prerequisites (Buss, 1989; Li et al., 2002):

CORE DIMENSIONS OF LONG-TERM CONVERGENCE

- **Mutual Attraction and Love:** Functions as an emotional commitment mechanism, signaling a psychological willingness to bond fitness interests and maintain cooperative fidelity despite external temptations (Frank, 1988).
- **Dependability and Emotional Stability:** Unstable or erratic partners impose severe costs on joint enterprises, escalating domestic conflict and threatening offspring well-being.
- **Kindness and Prosociality:** Serves as a vital proxy for altruistic orientation, indicating that an individual will direct effort toward the partner and shared offspring rather than withholding resources selfishly.
- **Intelligence:** Signals broad neurological functioning, adaptive problem-solving skills, verbal coordination, and general fitness across fluctuating socio-ecological conditions.

Persistent Asymmetries in Long-Term Horizons

Although there is significant convergence on character essentials, sex-differentiated evolutionary problems continue to affect long-term preferences.

Female Priorities: Sustained Resource Holding Potential. Because female reproduction is limited biologically, women in long-term contexts evaluate a mate's ability to secure and provide resources over an extended horizon (Buss, 1989). Interestingly, research suggests that this preference is not simply a coarse preference for immediate wealth. As Jonason et al. (2012) demonstrated, female long-term preferences discriminate carefully between different types of resource control: women show marked preference for partners who earn their resources through personal competence, effort, and social status, over those who simply possess unearned or transient windfall wealth. Traits such as ambition, industriousness, reliable social connections, and professional promise act as predictive indicators of sustained future provisioning throughout child-rearing years.

Male Priorities: Reproductive Value and Paternity Confidence. Ancestral men faced two fundamental biological problems in long-term pair-bonding that did not affect women: discerning female reproductive capacity and managing paternity uncertainty. In short-term contexts, men select for immediate fertility (current probability of conception), which peaks in a woman's mid-twenties. In long-term mating, however, men prioritize reproductive value—the total expected

future reproductive output across a female's lifespan (Symons, 1979; Buss, 1989). This selection pressure explains the universal male preference for youth in permanent mates, as youth directly correlates with remaining reproductive lifespan. Additionally, because human fertilization occurs internally, ancestral men risked cuckoldry— investing finite resources into another male's genetic progeny, yielding an absolute biological loss (Trivers, 1972). Consequently, men in long-term contexts place high value on signals of chastity, fidelity, and low socio-sexuality, viewing prospective sexual infidelity as a severe threat to the pair-bond (Buss & Schmitt, 1993).

Trade-Offs, Budgets, and Empirical Choice Realities

In self-report surveys, research participants routinely construct ideal mates possessing pristine combinations of beauty, immense wealth, absolute fidelity, high social dominance, and boundless kindness. However, real-world mating markets are inherently constrained; high-value mates are scarce, competition is fierce, and individuals must continuously calibrate their expectations against their own relative mate value.

To simulate these ecological constraints, Norman Li and colleagues (2002, 2013) developed a microeconomic budget framework to distinguish between mate selections necessities (items prioritized when resources are constrained) and luxuries (items prioritized only after baseline thresholds are secured).

Table 2

Budgetary Allocation Patterns Across Low- and High-Resource Conditions

Resource Budget	Male Priority Allocation	Female Priority Allocation
Low Budget (Necessity Phase)	Allocates primary budget units to Physical Attractiveness until a minimum acceptable threshold of health and fertility cues is achieved.	Allocates primary budget units to Social Status and Resources until a minimum acceptable threshold of provisioning competence is achieved.
High Budget (Luxury Phase)	Marginal spending on physical attractiveness decreases; surplus points shift toward shared luxuries: Humor, Creativity, Kindness, and Shared Values.	Marginal spending on social status decreases; surplus points shift toward shared luxuries: Humor, Creativity, Kindness, and Shared Values.

Note. Data adapted from experimental microeconomic mate preference paradigms in Li et al. (2002, 2013).

As shown in table 2, under a low budget, sex differences crystallize around core adaptations – men spend a disproportionate sum of their limited budget on achieving physical attractiveness, and

women – for establishing social status and resource capability (Li et al., 2002). At the same time, once these thresholds are passed, both reduce the expenditures on the base factors and begin to channel the remaining budgets into similar luxuries – humor, creative intelligence, artistic ability, and shared interests (Li et al., 2002; 2013). Interactive experiments, such as the ones testing the dating behavior in speed dating, confirm that these mental trade-off algorithms transform directly into behavior; thus, any prospective mate who fails to reach the threshold on the primary necessity is rejected by both sexes regardless of their secondary luxuries, meaning that people have a sequenced decision-making algorithm rather than a simple tally (Li et al., 2013).

Modern Mating Ecology: New Environments and Old Algorithms

The human mind evolved to solve mating problems in small-scale hunter-gatherer bands characterized by high visibility, limited residential mobility, tight kin surveillance, and little mating candidate pools. The modern world, however, presents an evolutionary mismatch – the algorithms now operate in an urbanized and digitally mediated environment (Li et al., 2013).

Digital hyper-choice and mate value distortions. Digital dating applications present an apparent infinity of potential suitors, thus artificially inflating their mate value and engaging the optimization search strategy. When individuals perceive that the broader pool of available partners is limitless, commitment thresholds increase, pair-bond formation is postponed, and willingness to tolerate normative partner flaws declines sharply. Moreover, the swipe interface accentuates the visual heuristics, skewing the romantic attention to a narrow elite of highly photogenic individuals. Decoupling of sex and reproduction. The development of modern chemical contraception represents a radical departure from ancestral biology. By decoupling the intimacy from reproduction, it allows both sexes to pursue short-term strategies with significantly lesser risk of unwanted pregnancy, while the evolved psychological mechanisms operate as if every sexual act was potentially reproductive. Thus, men continue to be attracted to morphological signs of fertility, and women – to various subtle cues of genetic health, status, and paternal viability.

The female economic autonomy. In industrialized societies, where women gain high levels of education and occupation, their structural dependency on male provisioning decreases. The evolutionary models predict two potential pathways of female preferences: either the Structural Powerlessness Hypothesis (preference for wealthy partners will dissipate) or the Evolutionary Trajectory Model (deep psychological biases remain persistent). Cross-cultural data confirm the latter: in economically self-sufficient women, their baseline thresholds frequently escalate, thus, they are seeking to find partners who match or surpass their existing educational and socio-

economic standing – positive assortative mating or hypergamy (Buss, 1989; Jonason et al., 2012). The underlying algorithm continues to value resources, although the woman's own wealth serves as a raised platform rather than a replacement for male provisioning.

Methodological Considerations and Critiques

While evolutionary psychology indeed provides robust and falsified predictions about human mate preferences, several theoretical and methodological debates continue to refine the discipline:

WEIRD Demographics. The early empirical foundations of evolutionary psychology were built upon the data of Western, Educated, Industrialized, Rich, and Democratic (WEIRD) undergraduate students. While the subsequent multinational replications confirmed the universality of the age, status, and body-related preferences (e.g., Schmitt et al., 2003; Walter et al., 2020), there are significant regional variations in sex difference magnitude, mediated by local pathogens, gender equality indices, and operational sex ratios.

Stated versus revealed preferences. One of the criticisms of the evolutionary psychological studies is that the stated preferences on the retrospective psychometric questionnaires may differ significantly from one's real-time mate choice behavior (e.g., speed-dating). While the stated preferences indeed show sex differentiation, the real-time choices can be influenced by the situational variables, mutual idiosyncratic rapport, and dynamic non-verbal interaction (Li et al., 2013).

Neurobiological integration. Modern studies increasingly attempt to integrate the psychological strategies in specific neuroendocrine cascades. Thus, long-term pair-bonding is maintained by oxytocinergic and vasopressinergic pathways responsible for attachment and social buffering and short-term pursuit – by dopaminergic reward pathways and testosterone-mediated competitive drive. The integration of hormonal profiles with evolutionary behavior is a crucial frontier.

Conclusion

The human mating psychology is not a simplistic biological script; it is not an arbitrary social construct – it reflects an evolutionary dual-mating framework that balances the ancestral survival pressures with the individual contemporary realities.

Through the theoretical lens of parental investment and Sexual Strategies Theory, we can see the logic of human courtship over the temporal horizons – in the short-term (“flings”) the selection is

based on the immediate genetic indicators, reproductive viability, and the least structural commitment – a reflection of the biological asymmetry inherent to the mammalian reproduction; while the long-term mating (“forever”) transforms the selective landscape – the shared costs of raising the altricial offspring lead to the profound cognitive convergence on the dependability, kindness, mutual affection, and cooperative competence. Thus, the short-term and long-term mating are not an unbridgeable divide but complementary components of the adaptive repertoire; whether in “flings” or long-term pair-bonds, humans use the evolved algorithms to assess the tangible costs, balance the trade-offs, and move toward the fundamental goals of connection, survival, and genetic continuity.

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