

## Evolution of alternative mating systems in human and non-human primates

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Alternative mating systems evolve when different strategies return equivalent reproductive success within a population and are not traits that “make the best of a bad job” by minimizing the loss of reproductive success due to poor competitive status. Alternative mating systems in non-human primates include intrasexual selection of male-male competition and intersexual selection of female choice and are more common when paternal investment in offspring is minimal. In humans and other primates with high paternal investment, it is less clear why females choose males displaying an alternative, non-investing strategy. We use game theoretic modeling of female choice to examine the evolutionary thresholds under which a female in a pair-bond would choose an extra-pair copulation with a non-investing male. Our model shows when females with a typical mating system of long-term mate choice for investing males should make a short-term choice of a non-investing male.