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Self-Awareness, Auto-Imprinting, and Sexual Preferences in Humans

Humans may be the only animal species in which a significant proportion of individuals show strong or exclusive preferences for engaging in sexual behavior with members of their own sex, and for engaging exclusively or primarily in sexual practices that have no possibility of leading to the production of offspring. Although homosexual behavior has frequently been cited for many animal species (e.g., Ford and Beach, 1951), most of those cases appear to involve juveniles, fleeting contacts, novel circumstances (such as unisexual groups in confinement), or misinterpretations (as an example in the last category, homosexual mounts in cattle performed by females in oestrus on other females attract the attention of bulls, thus increasing the female's likelihood of producing offspring by the dominant bull). Even if human homosexual behavior is eventually identified as a developmental accident or a result of environmental novelty, we must deal with the question of why such accidents happen so frequently in our own species or the nature of the novelties responsible.

At the outset, one suspects that three factors might be involved in the high frequency of homosexuality in humans: (1) the fact that sexuality is connected not merely to ovulation and the fertilization of ova but also to pair bonding and the maintenance of effective parental care (i.e., sexuality occurs outside the context of fertilization per se, and thus may be more susceptible to being misdirected), (2) the facts that (a) human learning is so massive and (b) consciousness and self-awareness may connect to auto-imprinting in ways that promote interest in same-sex sexuality, and (3) human social and sexual environments have probably been modified more than those of any other species. Two or all three of these features may combine to increase the likelihood of homosexual behavior.

To a certain extent I am skeptical about the pair-bonding effects of human sexuality being involved in homosexuality, partly because these tendencies seem stronger in human females than in males, yet homosexuality seems more prevalent in males. There may, however, be two obfuscating factors: first, males are likely to be more active sexually because of a history of polygynous tendencies -- as probably in all group-living mammals -- and this might cause them to exhibit more sexuality in all modes, including homosexuality. Second, female homosexuality may be more prevalent than is understood, partly because homosexual females have tended to keep their preferences suppressed, in the interests of maintaining pair bonds or retaining resources. I note here that female homosexuality ought not to have been selected against as strongly as that of males, if it was expressed primarily in bonding, as between women in the same harem or married to close relatives such as brothers. Moreover, homosexual females may not have suffered reproductively, at least not as much as homosexual males, because the physical and political dominance of male probably caused virtually every female of reproductive age to be "married" and to become pregnant regularly. I don't wish to abandon completely the idea of pair-bonding being involved in sexual preferences, because I have not yet figured out what it might mean that men are evidently evolved to be interested in sex with women at any time during the menstrual cycle.

Presumably, humans, like other higher vertebrates, learn a great deal about how to perform sexually, including how to choose sexual partners. Curiously, little or nothing is known about why any animals should have evolved to learn to identify conspecific individuals of the opposite sex as appropriate mating partners (Alexander, ms.). For the vast majority of animals (invertebrates) there seems to be no evidence that any kind of learning experience -- at least involving interactions with other individuals -- is required in order to recognize conspecifics of the opposite sex. Moreover, it is well-known that learning is an occasional source of error in those species in which it is used, and a frequent source in species reared in unusual environments (e.g., domestic birds that imprint early in life). One is led to suppose that some

considerable benefit must be realized as a result of involving learning in this initial gross step in mate selection. What this benefit might be has not been explored, perhaps in part because the question why animals should learn the nature of appropriate sexual partners has not previously been raised.

The ability or tendency to focus on conspecifics of the opposite sex by such organisms as arthropods, which commonly have had no prior experience with any conspecifics, is usually described as an innate or instinctual behavior. Such labels do not describe specific mechanisms but rather exclude certain ones: they assume that no learning involving other individuals has occurred. Although insects might learn from their own characteristics, in the various vertebrates that have been studied, efforts to demonstrate auto-imprinting with respect to nepotism have apparently not demonstrated any cases with a significant chance of operating under natural conditions (see review by Alexander, ms.).

For various reasons, auto-imprinting appears more likely to evolve in sexual selection than in nepotism (Alexander, 1979, ms), though it has not been analyzed there. Perhaps it has been overlooked partly because labels such as instinctive and innate have discouraged investigation into mechanisms, and partly because its demonstration would be so difficult.

It would appear that no highly social organism, such as a human, is likely to require auto-imprinting to identify its appropriate class of mating partners. Perhaps it could use how others like itself treat the other individuals in its species. If this were true, though, then children of homosexuals would tend themselves to be homosexuals. Or perhaps sexual activities among one's closest associates have little effect, since these would always involve inappropriate sexual partners.

I suspect that understanding homosexuality will turn out not to be as different as might be supposed from understanding other unusual sexual preferences, such as pedophily, bestiality, onanism, or even rape. In these seemingly disparate cases there is the commonality of a tendency -- often also appearing irreversible to one or another extent -- to favor an unusual kind of sexual partner or an unusual kind of sexual activity.

In part I wish to move toward an argument that the rise of self-awareness in humans may have caused us to become much more vulnerable to homosexual (and autosexual) preferences, because through consciousness and self-awareness we can see ourselves almost as separate from ourselves -- as different entities. Hence, we may be unusually susceptible to a particular form of sexual own homosexual tendencies or preferences. If there is a link among causal explanations for all of the above "deviant" behaviors, however, that might argue against this particular suggestion.