The Evolution of Human Social Behavior

Subjects: Behavioral Sciences Contributor: Bjørn Grinde

Social life is a key feature in humans; without it, language, science, and technology would not have appeared. The inclination to engage with others is also a main source of pleasure and pain and as such a key factor for quality of life. In this paper, I shall present current knowledge on the evolutionary trajectory leading to the four main types of relations: parent–child, pair-bonding, kinship, and social life (bonding between non-kin for purposes other than breeding). These relationships are not unique to humans; they have evolved independently multiple times across the animal kingdom. In our lineage, the origins of parent–child bonding may be traced back to the early amniotes some 320 Mya (million years ago). Pair-bonding and social life most likely evolved recently. Understanding how these affiliations are rooted in the brain, particularly the role of feelings, provides valuable insights that can help us improve society.

Keywords: society ; evolution ; happiness ; affiliations ; friendship ; cooperation ; brain ; rewards

Social behavior is arguably the most important human feature to understand. An evolutionary perspective offers insight that supplements the social sciences. Dobzhansky's famous quote "Nothing in biology makes sense except in the light of evolution" [1] is therefore relevant.

Affiliations between individuals, collectively referred to as *social behavior*, have evolved independently in a wide range of animal lineages. The presence of affiliations is a question of balancing the benefits of solitary living against the compensations offered by associating with others. The various forms, such as parent–child, parental bonding, kinship, and larger constellations (referred to as *social life*), offer distinct advantages and disadvantages ^[2]. The main evolutionary advantage of the former two is reasonably obvious—to ensure necessary care for offspring—while social life can serve various functions. It offers, for example, increased vigilance and protection against predators, help in laying down prey, control of territory, and the construction of living quarters as in ants.

I shall focus on our branch of the evolutionary tree. I wish to present current knowledge as to the evolutionary rationale and history behind human affiliations. The neurobiology responsible will be covered briefly.

Affiliations vary from weak to strong, whether one considers differences between species or individuals. In the case of social life, bird colonies typically represent weak bonds with limited impact on behavior. In contrast, the bonds in eusocial animals such as ants and naked mole-rats control much of the observed behavior. There are also considerable variations as to what extent the neurobiology responsible is hard-wired or designed to be molded by experience. In social insects, it is presumably reasonably hard-wired, although even here the behavior is modulated by learning ^[3]. In the human brain, social behavior is soft-wired, as it is meant to develop and adapt throughout life.

How we relate to each other is arguably the most important factor in creating a society where the inhabitants flourish. If we understand the innate tendencies behind our social behavior and how these tendencies can be molded, we stand a better chance in this endeavor. There are several examples of a similar perspective in the literature ^{[2][4][5][6]}, yet I believe the present text offers novel information and insight.

Feelings are an important factor in the human brain, not the least in connection with social behavior. In the following section, I discuss their role. In Section 3, I look at the evolution and neurobiology of various forms of affiliations. Section 4 deals with how our innate tendencies play out today. In the final section, I comment on the prospects for improving society.

References

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