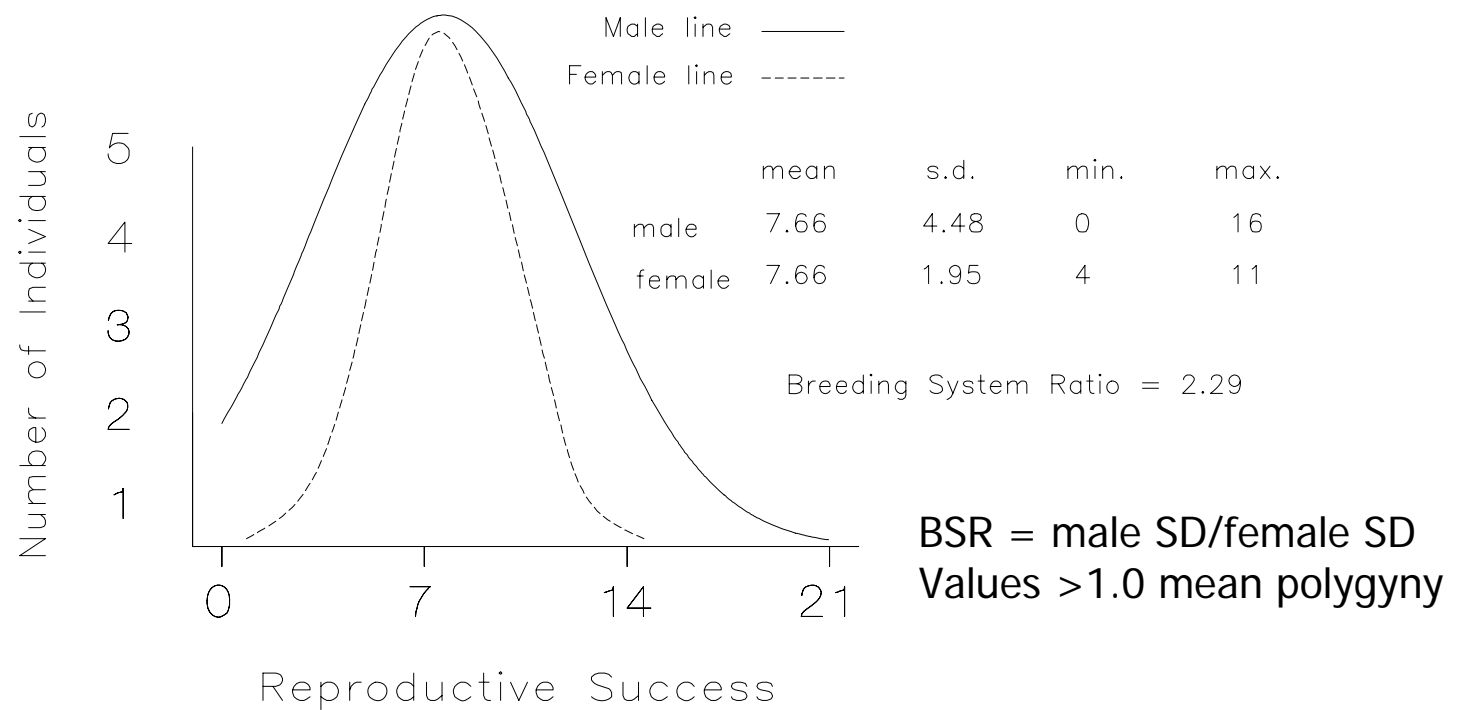


How to Detect Polygyny

- According to Bateson (1948), if male reproductive variance is greater than female reproductive variance then polygyny exists.
- For humans polygyny-like marriage can exist even if it is formally prohibited in the form of male serial polygyny. Some argue that polygyny frequently exists in nominally monogamous societies.
- The next slide shows how to measure of Brown's breeding system ratio: effective polygyny occurs when there is a significant difference between male and female reproductive variances.

Breeding System Ratio

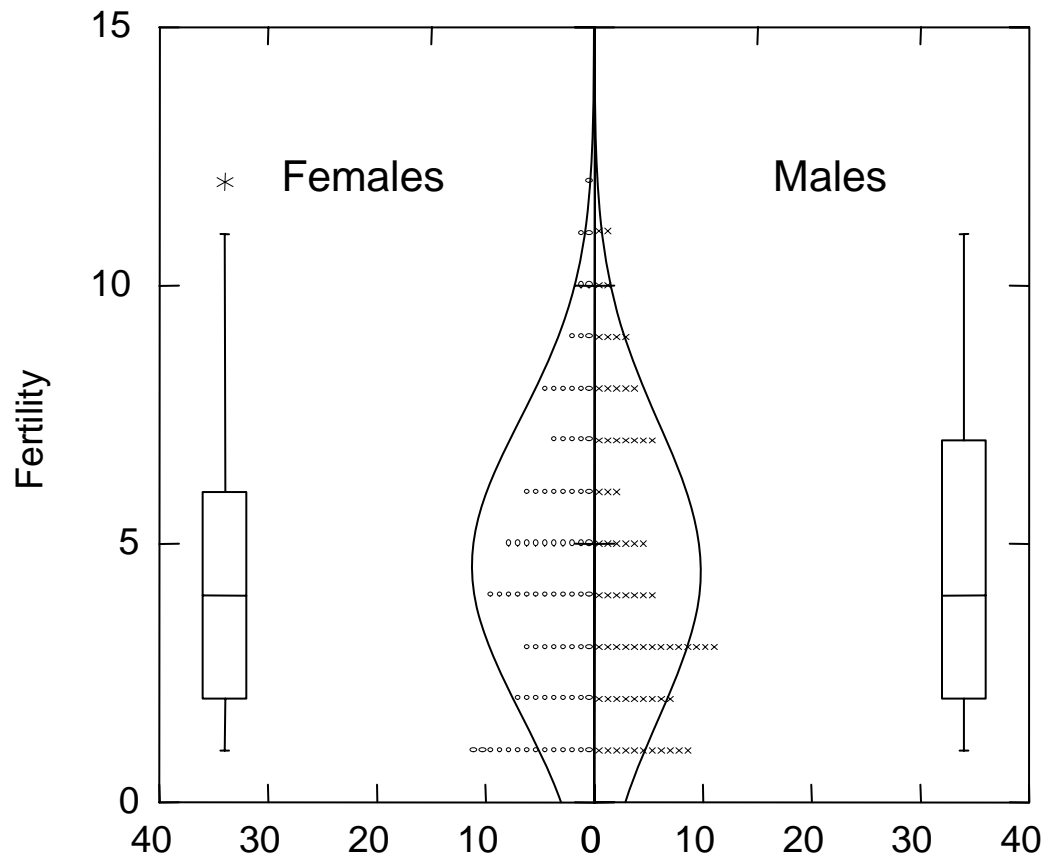
Female and Male Reproductive Variance



Can Effective Monogamy Exist in Human Societies?

- To test the proposition that polygyny may functionally exist in a society that is nominally monogamous Brown created a measure known as the breeding system ratio (BSR) shown in the previous slide. When the ratio exceeds 1.0 then polygyny exists because male reproductive variance is greater than female reproductive variance something found in all polygynous systems. Brown's research on genealogies of survivors of the Bounty mutiny on Pitcairn Island demonstrated that true monogamy can exist.
- In addition unpublished research on male and female reproductive variance among the San also shows that true monogamy exists (from Draper and Hames, n.d., in the next slide).

Reproductive Variance among !Kung Males and Females



Sex	N	Mean	S.D.
Females	80	4.57	2.83
Males	70	4.48	2.85

BSR 0.98

Marriage Forms

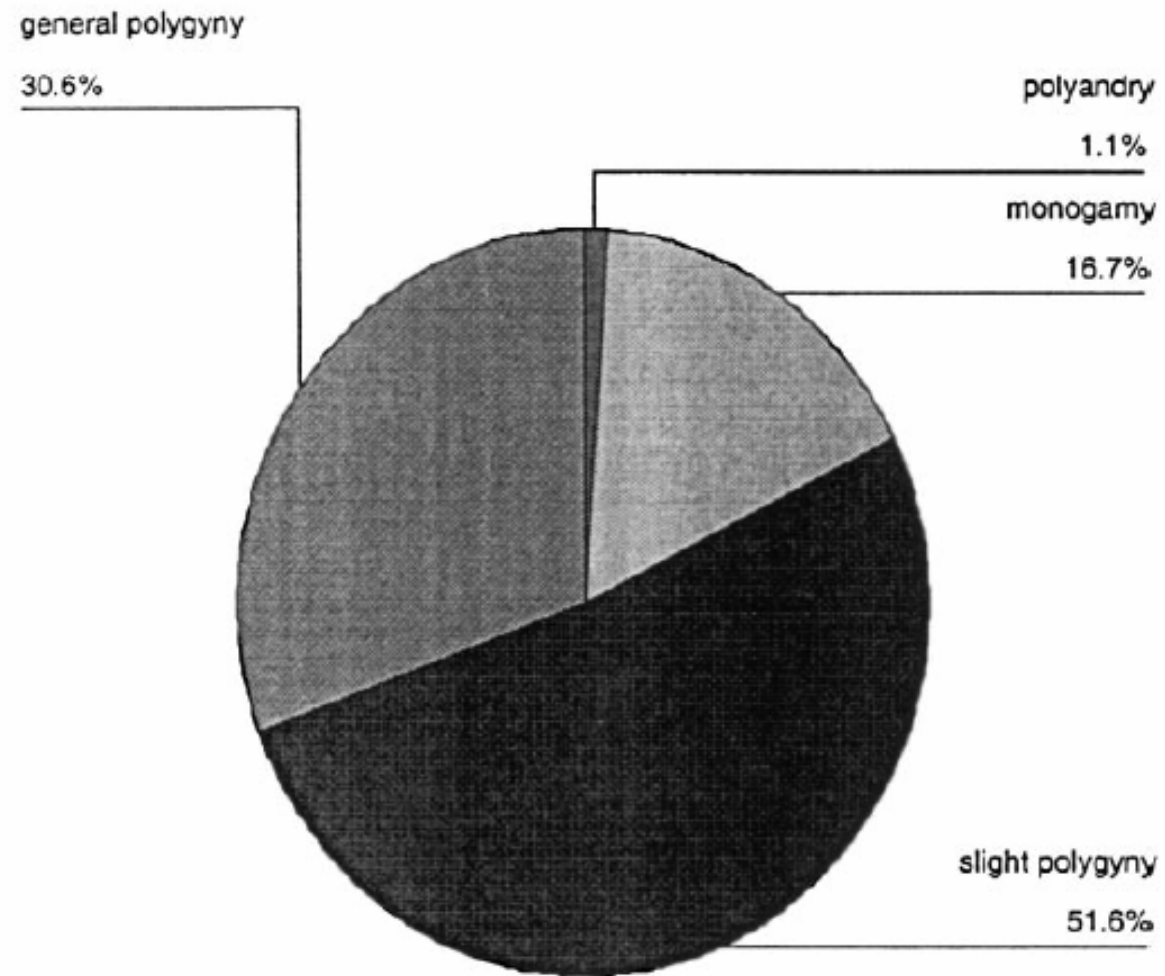


Fig. 5. The human mating system in the Standard Cross-cultural Sample ($n = 186$).

Polygyny and Social Complexity

The following slides show the distribution of polygyny in relation to social organization:

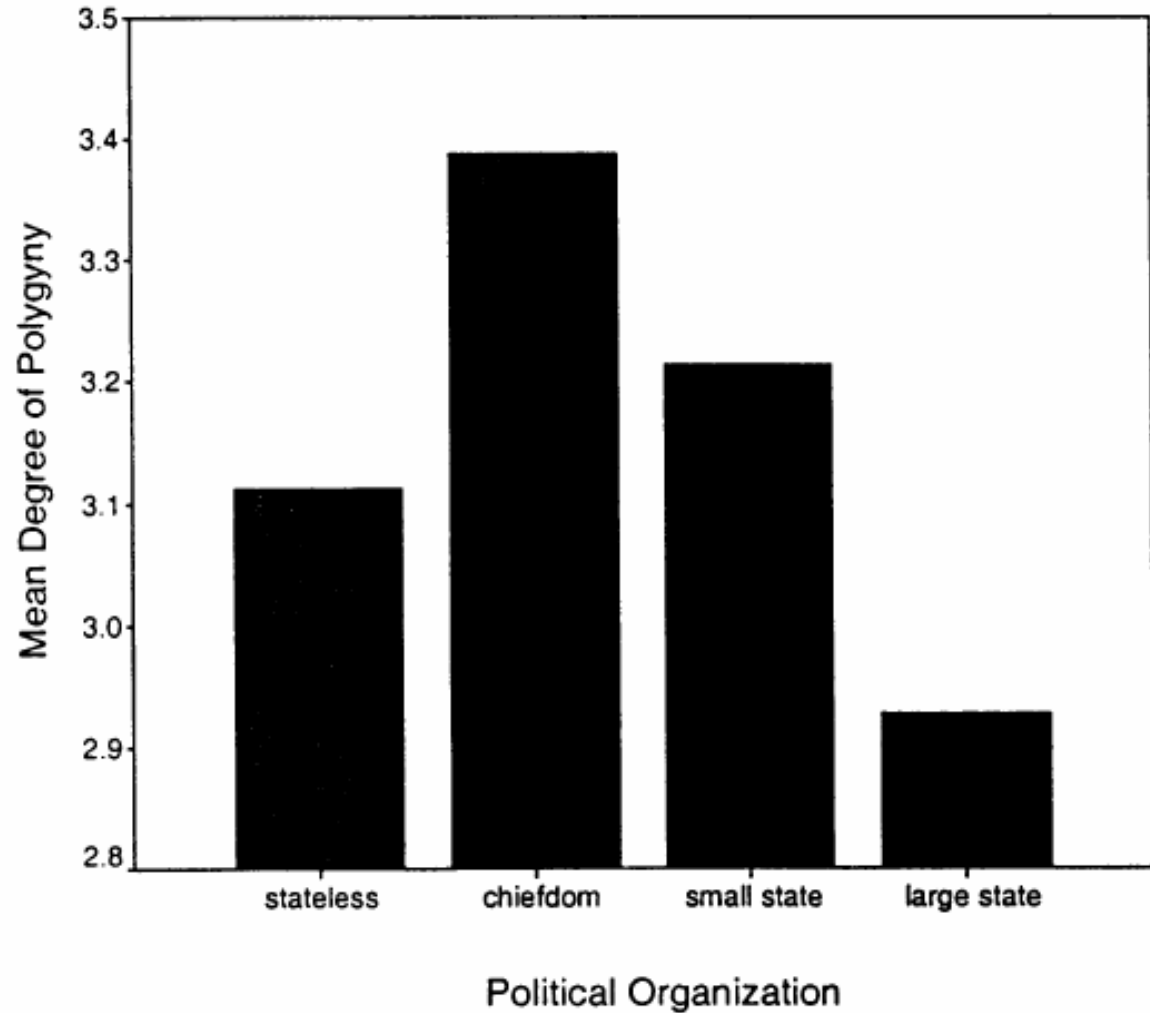


Fig. 6. Degree of polygyny by political organization ($n = 184$).

Stratification and polygyny among foragers and horticulturalists

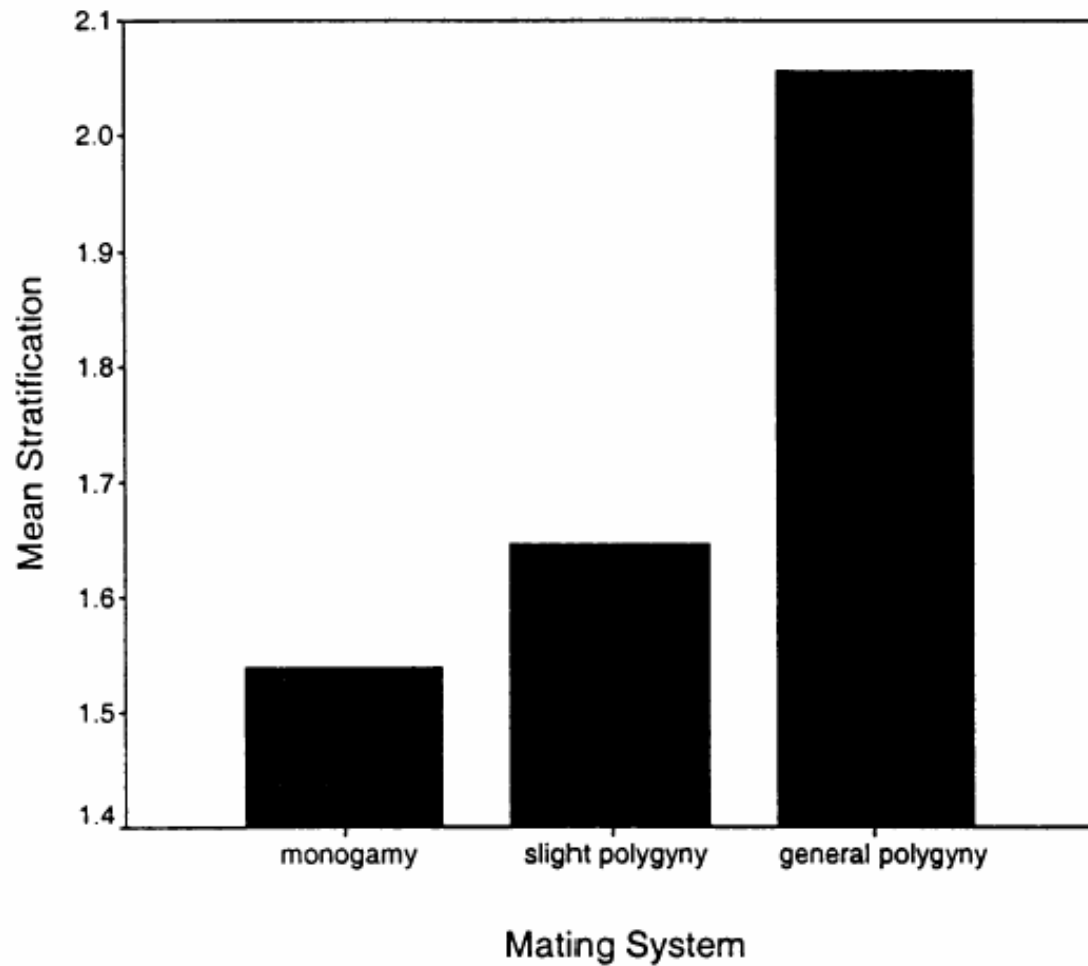
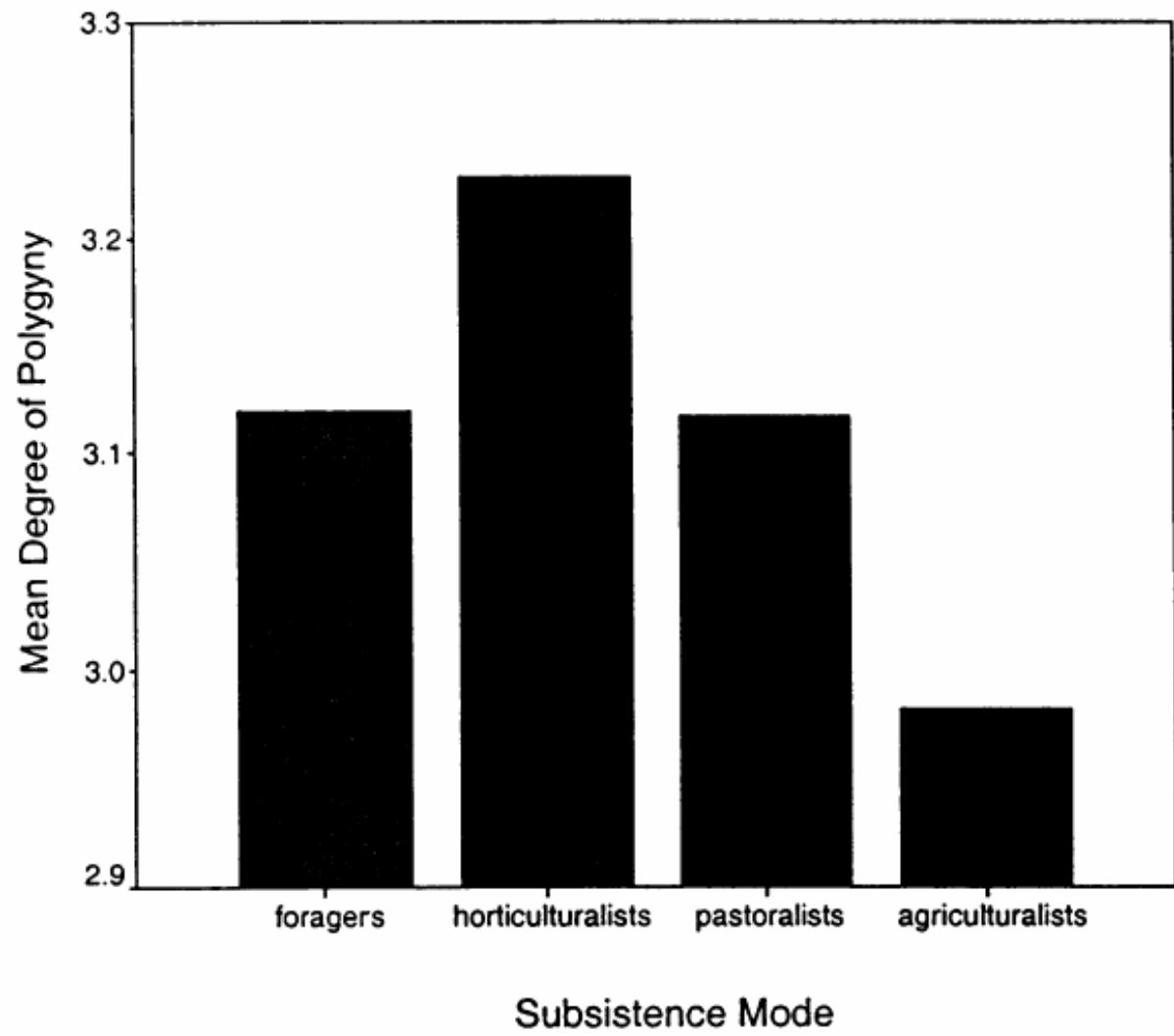


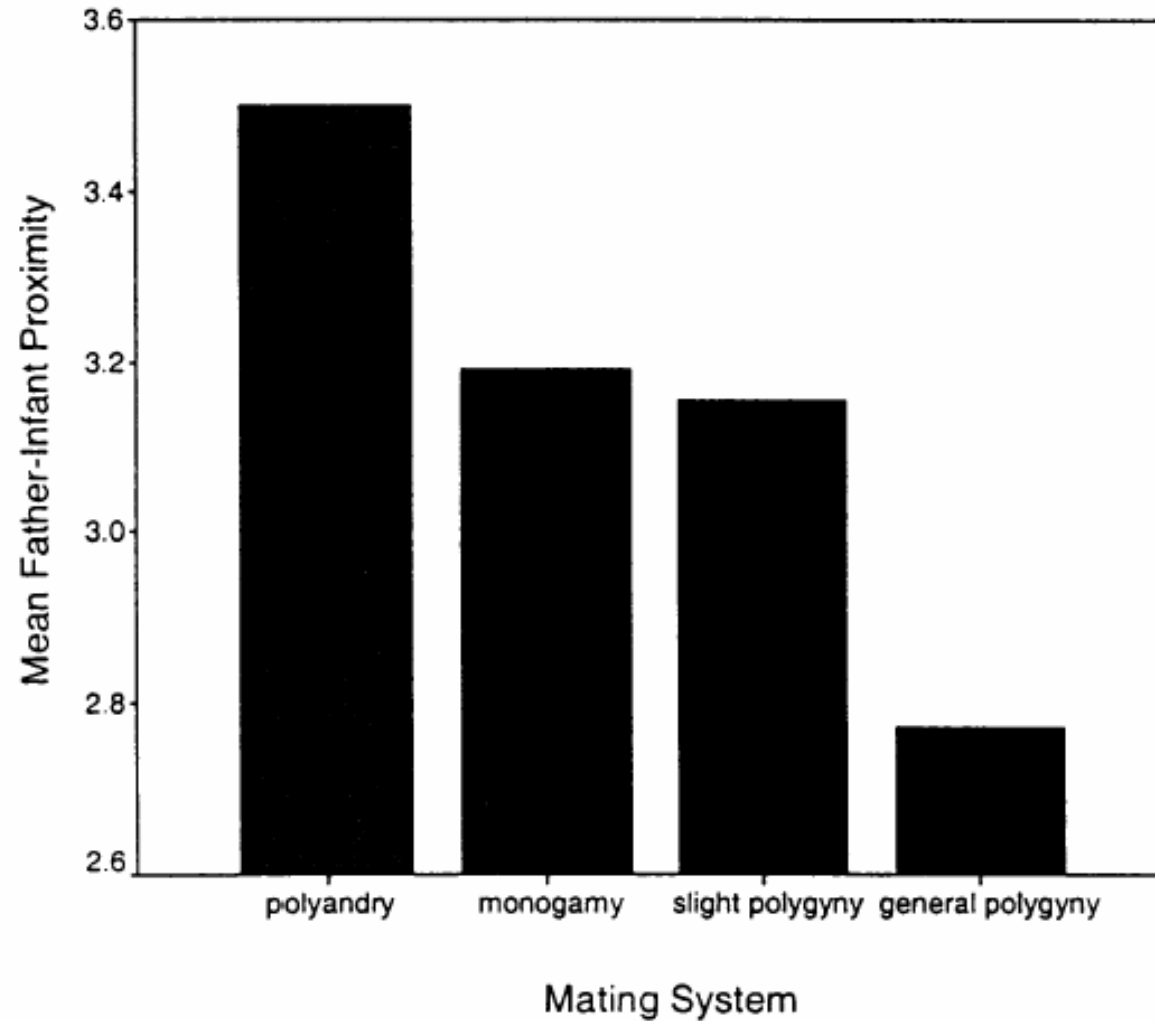
Fig. 7. Social stratification by mating system for foragers and horticulturalists ($n = 111$).

Polygyny and Subsistence



Marriage and Father-Infant Interaction:

Interaction:
polygyny is associated with lower rates of direct care by males. This fact suggests that males invest more in mating effort than parental effort as polygyny rates increase



Male contribution and marriage: the more males contribute to subsistence the less likely they are to be polygynists

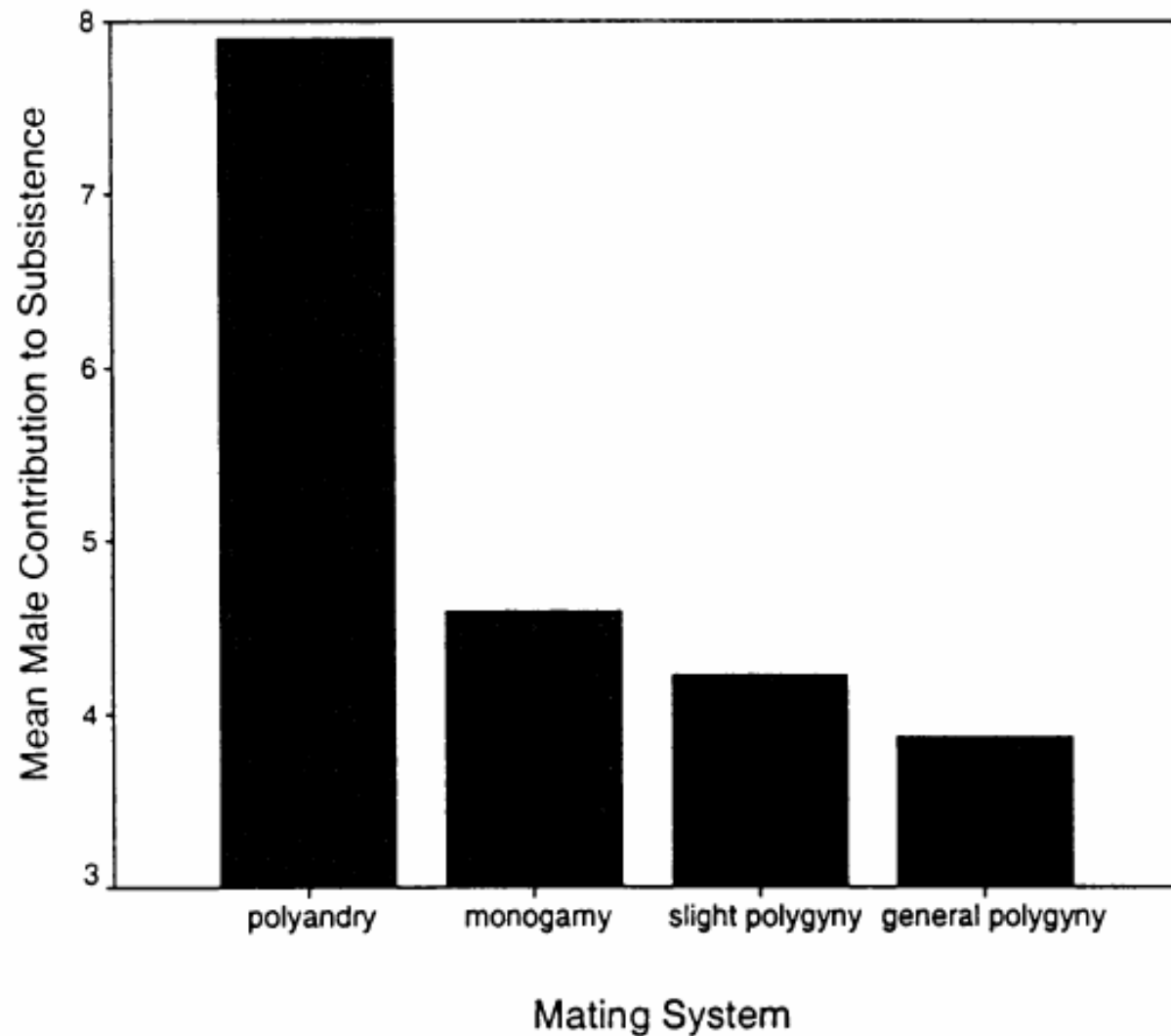


Fig. 10. Male contribution to subsistence by mating system ($n = 92$).