

I use observations of foraging and social strategies among hunter-gatherers to help explain what happened in human evolution. For example, three current collaborative projects are 1) modeling life history evolution in our lineage and 2) measuring aspects of aging in captive chimpanzees. All build on previous work on life history evolution that began with ethnographic findings in two large field projects studying the behavioral ecology of hunter-gatherer populations, one the Ache of eastern Paraguay and the other the Hadza of northern Tanzania. Results of our systematic quantitative observations suggested that, contrary to long-standing expectations, men's hunting was aimed more at status competition than at provisioning mates and offspring. Grandmothers played the key role in providing for youngsters when the mothers of those youngsters bore their next baby. These findings, combined with theory about mammalian life history evolution, indicated that the provisioning role played by grandmothers might explain the evolution of human longevity. That grandmother hypothesis highlights key differences in life history between people and our closest living relatives, chimpanzees, including the substantially greater longevity in humans - even though female fertility ends at about the same age in both species - and the strongly male biased sex ratio in the fertile ages that is a distinctive feature of human populations. Mathematical modeling confirms the plausible role of helpful grandmothers and its consequences for the evolution of post-menopausal longevity, later maturity, and shorter birth intervals, as well as male biased mating sex ratios in our lineage. Each of those features likely had profound effects on the evolution of human social behavior. I continue both the modeling collaborations and also data collection and analysis aimed at improving estimates of the effects of fire on ancestral foraging strategies and quantitative measures of aging in captive chimpanzees for comparison with measures made on people.