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Leonetti et al. present a significant and interesting paper combining theory from evolutionary ecology with anthropological and demographic data to explore conflict arising between Khasi mothers and husbands who compete to manipulate women's reproductive lives. Their paper represents a significant advance over other studies of grandmother investment by exploring the contingency of this support within one matrilineal population. The findings are consistent with the notion of maternal grandmothers' playing an important protective and supportive role; in addition, Khasi mothers closely monitor their daughters' marital and reproductive careers, adjusting their level of support where necessary.

While the paper clearly demonstrates conflicting sex-specific reproductive strategies in humans, it does leave some unanswered questions about mechanisms. It would be interesting to know if the negative effect of husband status on child survival is mediated by male quality (e.g., labor contributions, social status). The authors do cite previous studies which show that second husbands contribute materially as much as first husbands; however, the mortality data presented for the Khasi suggest that there are real costs in terms of child survival. This may suggest that second husbands are unable to provide the same level of care as first husbands.

This paper raises a range of additional evolutionary questions relating to parental investment that may merit further investigation. It would be interesting to determine the level of competition between female siblings in the household, given that same-sex conflict influences the reproductive success of males in patrilineal societies. Assuming that only one daughter inherits and benefits from extra maternal support following marriage, both the number and the order of same-sex siblings may affect female reproductive success. Furthermore, the authors indicate that there are no sex biases in child growth. Does that vary across households? Given that there are such strong bonds between female relatives in matrifocal households, sons may do better in households where married daughters move away from the matrilineage.

The significance of this paper lies in its exploration of universal themes such as the tension between a man and his mother-in-law while identifying a range of strategies of paternal and grandmaternal behaviour which are dependent on a woman's reproductive value. Importantly, the authors are also able to place their findings in a wider evolutionary context, providing a thoughtful discussion of how studies of human kin investment contribute to an understanding of our evolutionary past. Their work shows how evolutionary anthropologists continue to help us to understand our present.

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Leonetti and colleagues' extension of ideas about sexual conflict to in-laws is a welcome experiment with powerful tools. They expand the concept of parental effort to include investments in more distant kin: grandmothers enhancing women's fitness by protecting preferences for fewer, healthier children, husbands spending less on their wives' children and more on their sisters' instead. However kin effort is directed and divided, sexual conflict models also assume that the total available is limited by competing allocations to mating. What if, in addition to the aspects of kin allocation that Leonetti and colleagues report, we also knew more about mating effort?

The idea that selection can favor allocations to mating instead of parenting comes from Darwin's theory of sexual selection. Whenever it requires one mother and one father to generate an offspring and sex ratios are equal, average reproductive success must be the same for males and females. If one sex has a faster potential reproductive rate, members of that sex will be in competition with each other for mating opportunities that depend on the slower sex. Males usually have faster potential reproductive rates. In the consequent competition, any male who has more offspring than the average female pushes other males below the female average. This fundamental asymmetry makes mating competition especially important for male fitness (Andersson 1994).

Leonetti et al. cite uses of this theoretical framework to explain sexual "divisions of labor" among hunter-gatherers. A man's hunting often provides more meat for others and less for his own wife and children than would alternative foraging options. The fitness rewards for the men themselves may come from hunting reputations that contribute to their mating success. From a woman's point of view, she and her children get less nutritional assistance from her husband than if he allocated more to parenting, but she also gets more from other men than if those men devoted more effort to their own families (Hawkes 1990). Mating competition supplies public goods (Hawkes 1993, 2001), so mothers and children benefit not only from husband/father's parenting effort (even if meager) but even more from the mating effort of all men (Hawkes and Bliege Bird 2002).

What of the Khasi? According to Nakane (1967), a man marrying a youngest daughter (heiress) could not head his wife's familial household, where authority belonged to her brother (or other male uterine relative). Husbands could head only new households established by elder daughters who could not inherit. Leonetti and colleagues found exceptions to these arrangements, but they indicate that the allegiances described by Nakane persist. A man who holds authority in his natal household and also establishes a household with his wife says "'one leg is in my sister's household, and one is in my wife's,' and he feels more at home in his sister's" (Nakane

1967, 143). Leonetti and colleagues categorize as in-law conflict the tensions between brothers-in-law and husbands that are widely found with matrilineal institutions (Schneider and Gough 1961).

What about mating effort? Nakane (1967, I33) reported that while women engage in trading activities at markets, "these activities on the part of women are controlled and accounted for by her uncle or brother, or even son (or, if no male member is available, by the husband), though in many cases they form separate domestic families. The man's control over the trade appears more marked when the scale of business is large." A man's success at building a business may aid his kin but also increase the standing among men that affects his mating success. Distinctions between mating and parenting can be tricky (Hawkes 2004). With divorce common, a man may gain by mate guarding or attention to business may improve his chances of acquiring another wife.

A man's social position may depend especially on activities that occur elsewhere, competing with kin effort at home. Traditionally Khasi men were obliged to protect the clan by military service. "Moreover the government administration and state representation in the Indian Union is solely the responsibility of Khasi men, who hold most political positions, as mayors, priests, village heads or campaign managers, to name a few" (Stirn and van Hamm 2000, 155). These positions may involve activities that, like hunting, also supply public goods: community defense, social order, and resource flows that affect the welfare of women and their children whether or not those women are wives or sisters of the suppliers.

Grandmothers face more transparent trade-offs in choosing which daughters or grandchildren to assist (Blurton Jones, Hawkes, and O'Connell 2005). They might, however, give less effort to daughters while assisting the social advance of sons. A successful man is always a fitness credit to his mother. Intergenerational agendas highlighted by Leonetti and colleagues make human reproductive allocations complicated, but additional explanatory power might come from attention to mating competition.

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By placing "in-law conflict" at the center of their analysis of reproduction among Khasi women, Leonetti et al. have generated novel and unexpected results. One of the most interesting of these is the depressive effect of mothers on the fertility of their daughters that shows up when they are residents of their daughters' households (table 3). The researchers argue that the presence of their mothers may help women to resist the high-fertility agenda of husbands in favor of a more moderate pace of reproduction that better preserves maternal health and future reproductive capacity and reduces child mortality.

One of the questions raised by this finding is how this effect is accomplished. Leonetti et al. show that the presence of a woman's mother increases age at first birth by about one year (table 1), accounting for some of the fertility reduction. Might there be other proximate mechanisms through which day-to-day maternal support for adult daughters reduces fertility? Family-planning prevalence is low and of little significance for fertility, so it is unlikely that reduced fertility is achieved via greater support for active family planning. In addition, Khasi women's physical workload is high and nutritional status sometimes poor (Leonetti et al. 2005), suggesting that the presence of a working mother might increase fecundability through enhanced access to resources rather than reduce it. As Leonetti et al. note in a discussion of hominin reproduction more generally, "with grandmother contributions to provisioning of offspring, lactational amenorrhea would be reduced and reproductive opportunities for males increased." However, when seen through the lens of the in-law-conflict model, the linkage between grandmother effects, lactational amenorrhea, and male reproductive interests suggests another form of interaction.

Because the reduction of lactational amenorrhea, by promoting male reproductive agendas, potentially threatens child survivorship and risks maternal depletion, the in-law-conflict model predicts that women's mothers will favor longer periods of lactational amenorrhea than husbands, even in the context of the potentially shortening effect of their contributions to provisioning offspring. Though lengthening lactational amenorrhea by withholding provisioning would not be fitness-promoting for mothers, supporting their daughters' choices to breastfeed longer and more intensively relative to husbands' preferences might be so. Humans are unique among primates in the flexibility of weaning age and in the use of complementary foods, setting up the possibility for adaptive lactational responses to variable social as well as nutritional environments (Sellen 2007). The psychosocial support and labor contribution of her mother might enable a woman to breastfeed longer and more intensively, to delay the introduction of complementary foods, and to limit the use of complementary foods in favor of increased breastfeeding when indicated by the changing needs of individual infants. This could have the effect of strengthening and prolonging lactational amenorrhea and slowing the pace of reproduction (as well as reducing child mortality).

Further investigation of infant feeding practices in relation to grandmother presence and fertility may be indicated. By focusing on the conflict of interest between husbands and women's mothers, Leonetti et al. have raised new questions in human reproductive ecology that will have cross-cultural relevance.