

An Evolutionary Psychological Perspective on Male Sexual Proprietariness and Violence Against Wives

**Margo Wilson
Martin Daly**

*Department of Psychology
McMaster University*

A particularly nasty husband might hit his wife with the sharp edge of a machete or axe or shoot a barbed arrow into some nonvital area, such as the buttocks or the leg. Another brutal punishment is to hold the glowing end of a piece of firewood against the wife's body, producing painful and serious burns. Normally, however, the husband's reprimands are consistent with the perceived seriousness of the wife's shortcomings, his more drastic measures being reserved for infidelity or suspicion of infidelity. It is not uncommon for a man to seriously injure a sexually errant wife, and some husbands have shot and killed unfaithful wives.

I was told about one young man in Monou-teri who shot and killed his wife in a rage of sexual jealousy, and during one of my stays in the villages a man shot his wife in the stomach with a barbed arrow... Another man chopped his wife on the arm with a machete; some tendons to her fingers were severed... A club fight involving a case of infidelity took place in one of the villages just before the end of my first field trip. The male paramour was killed, and the enraged husband cut off both of his wife's ears...

- Yanomamö (Venezuela); from Chagnon (1992, p.147)

"N/ahka, a middle aged woman, was attacked by her husband. His assault resulted in injuries to her face, head and lips. Her husband accused her of sleeping with another man... N/ahka and her husband had been married for many years but had no children together. Her only child was a girl of about fourteen years whose father was a Herero, and to whom N/ahka had not been married. The father had never contributed to his daughter's support, and for many years the child had been reared by N/ahka's parents who lived in a different village. When N/ahka's parents heard about the beating, they made plans to lodge a formal complaint... against their son-in-law. Other people, not close relatives of N/ahka or her husband, claimed that the couple had a long history of discord, allegedly because the wife liked to sleep with Bantu men.

- !Kung San (Botswana); from Draper (1992, p. 54)

The prevalence, forms, severity, circumstances, and legitimacy of violence against wives are cross-culturally variable. Indeed, the variability is such that many writers feel that the only valid propositions about violence against wives are necessarily culturally specific. These violent narratives, however, strike chords that transcend cultural variability. We do not find the people in these ethnographic accounts unintelligibly alien, nor, we propose, would normal adults anywhere. One implication is that both violence against wives and cross-cultural variations therein can usefully be discussed in terms of panhuman phenomena and concepts. One such approach, attempted here, is to discuss these phenomena in terms of a putatively panhuman evolved psychology and to propose hypotheses about cross-cultural variation in this light.

Cross-cultural diversity in social phenomena is, of course, anthropology's domain, and some prominent anthropologists (e. g. Geertz, 1984; Leach, 1982) have rejected the quest for truths of cross-cultural applicability. But others (e. g., Brown, 1991; Tooby & Cosmides, 1992) have criticized such cultural particularism as both unwarranted by the ethnographic record and antiscientific. Our sympathies reside with the latter school, which in no way denies the diversity of cultural manifestations but treats them as things to be explained rather than as irreducibles.

Why did N/ahka's husband assault her? To deter future infidelity? Because her relatives were not at hand to deter him? To disfigure her and make her unattractive to other men? Because San society legitimizes violence against women? Because he was socialized to be violent by a violent father? Because of neural impacts of testicular hormones? Because he lost his temper? It should be clear that these "answers" are not alternatives. In principal, all could be true, or all false, and if evidence were to persuade us to accept or reject any one of them, we would be none the wiser about the validity of any of the others.

All behavioral phenomena can and must be explained at multiple levels. "Causes" include extrinsic eliciting circumstances, relevant states and events in the brain, and a personal developmental history. There is also an evolutionary history, which is just as directly causal to a person's actions as any present stimulus or past experience, since the mental mechanisms processing present or past experiences were created by the process of evolution by selection.

In this paper, we argue that the violent rages of husbands, as illustrated in our opening quotations, are diversely manifested cross-culturally, but reflect an evolved, sexually proprietary, masculine psychology that is panhuman. We also advance several hypotheses about cross-cultural variations in violence against wives in light of this proposal.

AN EVOLUTIONARY APPROACH TO THE SOCIAL SCIENCES

An impediment to the identification of panhuman underpinnings of phenomena like violence against wives is that basic universals of human existence may be so taken for granted as to be invisible. In this regard it is helpful to situate human sociality within a comparative biological perspective. Biology is the study of living things, and its unifying conceptual framework is Darwin's theory of evolution by selection.

Living creatures are hugely complex systems. How can their adaptive organization have come into being? Darwin discovered the answer, "natural selection": Adaptive complexity emerges over generations because random variation is ceaselessly generated in populations of reproducing organisms and is then winnowed by nonrandom

differential survival and reproduction, resulting in the more successful forms proliferating while their alternatives perish.¹

Darwinian selection is more than a simple matter of differential survival. It is successful traits that "survive" over generations, not individuals, and this sort of long-term survival depends not merely on the longevity of those with a given trait, but on the abundance of their progeny. Imagine, for example, an aggressively coercive, mutant variety of male in a population of risk-averse pacifists, and imagine that these mutants tend to fertilize more females than the pacifists, but die younger. In such a case, the mutation will spread through the population over generations and male lifespan will decline. The general point is that adaptive traits have been "designed" by selection to contribute to a single outcome: outreproducing other members of one's species ("fitness")², in environments whose relevant aspects are not crucially different from those in which the history of selection has occurred. Every living creature has been shaped by such a history of Darwinian selection, and so has every complex functioning constituent part of every living creature. The "adaptationist" enterprise of elucidating the evolved functional designs of organisms and their constituent parts is the cornerstone of biological discovery (Mayr, 1983).

Psychologists are wary of "purposive" concepts, but Darwin made seemingly "teleological" reasoning scientific, by showing that the consequences of biological phenomena constitute an essential part of their explanation: what they achieve is in a specific, concrete sense why they exist (Daly & Wilson, 1993). Natural selection provided a materialistic explanation for the previously incomprehensible fact that living things have purposiveness instantiated in their structures. Unfortunately, psychologists have not always understood this implication of Darwinism, imagining that its concept of adaptive function is isomorphic with an account of goals and drives: evolutionists are regularly misunderstood to be invoking fitness as a goal like a full belly or self-esteem. In fact, when fitness consequences are invoked to explain behavior, they are invoked not as objectives or motivators, but to explain why particular objectives and motivators have evolved to play particular roles in the causal control of behavior. Selection designs organisms to cope with specific adaptive problems which have been sufficiently persistent across generations to have favored particular solutions. These evolved solutions necessarily entail contingent responsiveness to environmental features that were statistical predictors of the average fitness consequences of alternative courses of action in the past. Adaptation is not prospective; the apparent purpose in organismic design depends upon the persistence of essential features of past environments.

Another impediment to evolutionary sophistication in social science is the popular but false dichotomy of "social" versus "biological" explanations. Subscribers to this dichotomy equate "biology" with its mechanistic subdisciplines (genetics, endocrinology, etc.) and think of biological influences as intrinsic and irremediable, to be contrasted with extrinsic, remediable social influences. Moreover, since "biological" effects are irremediable, those who propose their existence (the "nature" crowd) are unmasked as pessimists and reactionaries, while advocates of "alternative" social influences (the "nurture" crowd) are optimists and progressives. This ideology, predicated on ignorance of evolutionary biology, pervades the social sciences, where it may be accepted by "nature" advocates as thoroughly and thoughtlessly as by their "nurture" foes. One presumption of this world-view is that biology is mute about anything

manifesting developmentally, experientially, or circumstantially contingent variation; indeed, the very demonstration of such contingency is seen as an exercise in the alternative, anti-biological mode of explanation. The irony is that developmentally, experientially and circumstantially contingent variation is precisely what evolutionary biological theories of social phenomena are about. What sorts of contingent social responsiveness would we expect selection to have favored, in what circumstances, and why? These are the issues that occupy theorists of social evolution.

PANHUMAN ATTRIBUTES IN COMPARATIVE BIOLOGICAL PERSPECTIVE

The first thing to note about *Homo sapiens* in comparative biological perspective is that people reproduce sexually. The evolutionary consequences of this mundane fact are immense. Many creatures reproduce without sex, producing offspring genetically identical to mother and thus assuring that whatever resource allocation is optimal for maternal fitness is optimal for offspring fitness, too. In sexual reproducers like ourselves, by contrast, "parent-offspring conflict" (Trivers, 1974) is endemic: the allocation of resources which would maximize maternal fitness is not identical to that which would maximize offspring fitness, a fact with innumerable consequences for maternal and infantile physiology and psychology (Haig, 1993).

Besides engendering parent-offspring conflict, sexual reproduction introduces a new social relationship: that between mates. This relationship entails both a fundamental commonality of purpose and a fundamental arena of potential conflict. First, since preferences have been shaped by selection and since the well-being and eventual reproduction of offspring contribute to the fitness of both parents, the resource allocations and other exigencies that appeal to one parent are likely to have appeal for the other, too. However, the fact that both parties gain expected fitness from either's investments in their joint offspring also opens the door to the evolution of "parasitic" exploitation of one sex's reproductive efforts by the other sex, and to escalated "evolutionary arms races" between the sexes (Davies, 1992).

The second thing to note about *Homo sapiens* in comparative biological perspective is that people are *dioecious*: Individuals come in two varieties, female and male, and successful reproduction requires one of each. Not all sexually reproducing creatures are dioecious, but in those that are, selection has acted partly in a sexually differentiated manner and partly not, producing some adaptations that are sexually differentiated and others that are species-typical.

The female is, by definition, the sex that produces the larger gamete: eggs are bigger than sperm. Thus, internal fertilization (the union of parental gametes inside one parent's body, which has evolved independently many times) almost invariably occurs within the female. Further evolutionary consequences include the elaboration of diverse copulatory devices (Eberhard, 1985) and all of the psychophysiological paraphernalia dubbed "sexuality" (Symons, 1979). Moreover, wherever additional modes of internal nurturance such as mammalian pregnancy have evolved, these too are sexually differentiated. Sexual asymmetry in internal gestation and lactation, characteristic of mammals, opens the door to the evolution of "parasitic" exploitation of the female's reproductive efforts by the male.

Indeed, insofar as reproductive efforts can be partitioned into the pursuit of matings vs parental investment (Trivers, 1972; Low, 1978), male mammals generally specialize in the former and females in the latter. One consequence is that male fitness tends to be limited by the number of matings, female fitness by nutrient availability. Because the minimal time and energy cost of producing a viable offspring is much lower for a male than for a female, the ceiling on potential reproduction is higher. Hence variance in reproductive success is usually higher for males ("effective polygyny"; Daly & Wilson, 1983), engendering more intense same-sex competition and the selective favoring of more expensive, dangerous, competitive traits, both morphological (e. g., weapons like antlers) and psychological (e. g., risk acceptance). Moreover, insofar as males are specialized for aggressive competition and male fitness is largely determined by the frequency and exclusivity of mating access, it is hardly surprising that males commonly attempt to exert aggressive control of females, too. Also noteworthy is that the greater size and aggressivity of males tend to be associated with greater vulnerability to threats of starvation, disease, and even predation, as the demands of same-sex competitive prowess compromise male design efficiency for other aspects of the species' ecological niche (Gaulin & Sailer, 1985).

This generic characterization must be tempered, however, by recognition of cross-species diversity. The extent to which male mammals have higher fitness variance than females, grow larger, die younger, etc., varies greatly even among closely related species, and these sex differences are correlated with one another. Most notably, when the sexes share parenting (as in foxes, various monkeys, beavers, etc.), these sex differences are reduced or abolished. Shared parenting is rare in mammals, however, presumably at least partly because male mammals lack reliable cues of paternity, with the result that fathers are vulnerable to "cuckoldry" (unwitting investment in young sired by rivals) and paternal investment is therefore evolutionarily unstable.

The third thing to note about *Homo sapiens* in comparative perspective, then — and the first in which we differ from closely related species — is that people form mateships of some stability, with biparental investment in young. Our nearest relatives, chimpanzees and gorillas, cleave much closer to the mammalian stereotype above, with males very much larger than females and parental investment predominantly or solely maternal.

Ours is hardly an exemplary monogamous species, however. Sex differences in body size, maturation schedules, intrasexual combat, and senescence are vestiges of effective polygyny, and human sex differences in these domains, although smaller than in extremely polygynous mammals, exceed those of monogamous species. A likely implication is that biparental pair-formation is an ancient hominid adaptation, but that competitively ascendant men continued to be polygamous. That is exactly what the ethnographic record of marriage practices suggests. Also, in the majority of known human societies (including all who subsist by foraging, as everyone did until the relatively recent invention of agriculture), most marriage is at least serially monogamous, but some men of high status are polygamous (Murdock, 1967; Betzig, 1986).

MARITAL ALLIANCE IS A PANHUMAN INSTITUTION

In all societies, women and men enter individualized marital alliances, with publicly recognized entitlements and obligations. Marital status everywhere entails the legitimation of sexual access (often but not always exclusive) and the possibility of reproduction and biparental care. (Marriages fail, but, unlike most mammalian sexual

alliances, marriage is not embarked upon with the expectation or intent of dissolution when conception or some other landmark has been attained.) Details of obligation and entitlement, stability, number of simultaneous marital partners, rules of marital eligibility, sex roles, and so forth, all vary in time and place, and yet marriage is everywhere a socially recognized sexual and reproductive alliance between a woman and a man, institutionalizing the partners' mutual entitlements and obligations.

In the contemporary West, we tend to view the mating game as a marketplace of individuals, but in the sort of kin-based society in which the human social psyche evolved, people take a strong manipulative interest in the marital transactions of others. Marriage in such societies is most often patrilocal, and the bride is incorporated into her husband's kinship group (Murdock, 1967; cross-cultural variability in these and related phenomena is discussed below). Indeed, many anthropologists view marriage in nonstate societies as a contract between kin groups, with women and their reproductive capabilities treated as exchangeable goods; even where kin groups exert less influence, as in modern nation states, a proprietary construction of the marriage's significance remains ubiquitous (Wilson & Daly, 1992).

THE EVOLVED PSYCHOLOGY OF SEXUAL PROPRIETARINESS & VIOLENCE

Sexual Proprietariness is a Psychological Adaptation of the Human Male

In proposing that men take a proprietary view of women's sexuality and reproductive capacity, we mean that men are motivated to lay claim to particular women as songbirds lay claim to territories, as lions lay claim to a kill, or as people of both sexes lay claim to valuables. Proprietariness has the further implication, possibly peculiar to the human case, of a sense of entitlement. Trespass provokes not only hostility but grievance, which has a more broadly social function: hostile feelings motivate action against rivals, but grievance motivates appeals to other interested persons to recognize the trespass as a wrong against the property holder and hence as a justification for individual retaliation or for more collective sanctions. The violent rage of a husband is a private response to a perceived threat, but acknowledgement by others that a husband was wronged adds another layer of social complexity. Indeed, entitlement and grievance are elements of human social psychology that would be pointless without the social complexity entailed by coalitions, reputations and politics. (Possible positive feedback effects of others' recognition of husbands' proprietary entitlements warrant study.)

Because claims of proprietary entitlement are responses to rivalry over limited resources, they necessarily exist in an arena of actual or potential conflicts of interest. These conflicts increase in number and complexity when the "property" is another person, since the owner must be concerned not only with rivals but with the property's own antagonistic interests, and with the property's relatives or other allies. Women's variably effective resistance to men's coercion and violence thus reflects, in part, the relative power of the two parties as affected by each's material and social resources (e.g., Thornhill & Thornhill, 1983; Smuts, 1992).

Sexual competition and cuckoldry risk are potent selection pressures affecting the evolution of psychological mechanisms and processes. We suggest that men's attitudes,

emotions, and actions indicative of sexual proprietariness and the commoditization of women are contingent products of sexually differentiated evolved mental mechanisms in the contexts of particular historical and cultural circumstances. The social complexity of our species — with its alliances based on both kinship and reciprocity, its moral systems and consequential personal reputations, and its cultural and ecological diversity — provides an arena within which male sexual proprietariness is diversely manifested (Dickemann, 1979;1981). Nevertheless, a ubiquitous core mindset can be discerned from numerous phenomena which are culturally diverse in detail but monotonously alike in the abstract: socially recognized marriage, the valuation of female fidelity, the equation of the “protection” of women with protection from sexual contact, the conception of adultery as a property violation, and the special potency of wifely infidelity as a provocation to violence (Wilson & Daly, 1992a).

Sexual Proprietariness and the Double Standard in Adultery Laws

All indigenous legal codes address the issue of men’s entitlements to sexual access to women, and all define an offense of adultery: unauthorized sex with a married woman, the man’s marital status being immaterial (Daly, Wilson, & Weghorst, 1982). Adultery is generally conceived of as a property violation, and often quite explicitly so; the victim is the husband, who may be entitled to damages, to violent revenge, or to divorce with refund of brideprice.

Adultery compensations are as prominent in Anglo-American legal history as in tribal bridewealth societies. Relevant tort actions remedying illicit sexual poaching include “adultery,” “loss of consortium,” “criminal conversation,” “alienation of affection,” “enticement,” “seduction,” and “abduction,” actions. Plaintiffs were husbands, fathers, or fiancés, and the conditions for a successful action show that the issue was lost sexual exclusivity, not lost labor: the woman’s prior chastity was crucial, since a man who steals an already unchaste woman has stolen nothing. Also clearly indicative of men’s proprietary construction of the women involved in these cases was the irrelevance of their consent, which did not mitigate the wrong against the husband, father or fiancé (Wilson & Daly, 1992a). Besides these entitlements to compensation for infringements of their proprietary rights, Anglo-American husbands have enjoyed other owners’ privileges, too. Until recently, husbands were legally entitled to confine wives against their will and to use force to enjoy their conjugal rights (Dobash & Dobash, 1979; Edwards, 1985). Persons who gave sanctuary to a fleeing wife, including even her relatives, were legally obliged to give her up or be liable for the tort of “harboring,” and Englishmen remained entitled to restrain wives intent on leaving them until a 1973 ruling made such acts kidnappings (Atkins & Hoggett, 1984).

Besides being treated as a tort, adultery has sometimes been criminalized as well (i.e., treated as an offense against the state as well as the husband). Adultery was a capital crime in 17th-century England, for example (Quaife, 1979). Cross-cultural and historical correlates of the criminalization of adultery have not, to the best of our knowledge, been explored. We would expect harsh criminal sanctions to be especially characteristic of highly stratified, polygynous societies in which powerful men use state power to enforce and legitimize their monopoly over their wives and concubines. (See Thornhill, 1991, for tests of an analogous argument about cross-cultural variability in definitions of “incest” and in the severity of sanctions against it.)

Several authors (Ford & Beach, 1952; Leacock, 1980; Stephens, 1963; Whyte, 1978) have claimed that certain exotic societies lack double standards of sexual morality or male resentment of adultery or both. These claims have then been widely cited as proof that sexual jealousy and proprietariness are cultural artifacts and not masculine psychological adaptations. But the claims are without foundation. Eleven societies (Baiga, Dieri, Gilbertese, Gilyak, Hidatsa, Lesu, Marquesas, Masai, Naskapi-Montagnais, Toda, and Yapese) have been listed as cases in point, and yet the relevant ethnographies explicitly describe men's violent reactions to adultery in all eleven (Daly, Wilson, & Weghorst, 1982). Three factors appear to have contributed to this confusion. One is that Ford and Beach (1952) and Stephens (1963) merely listed societies lacking collective criminal sanctions against adulterers, but have been misread as demonstrating that violent and other private responses to adultery were absent. Secondly, Whyte (1978) miscoded the double standard as "absent" if adulterous women and men were punished equally although adultery was itself defined asymmetrically (i.e., with respect only to the woman's marital status) in all cases. Finally, the issue has been muddied by what Bloch (1977) and Brown (1991) decry as "anthropological malpractice": the exaggeration of cultural difference to titillate and astonish. The idea that there are cultures in which sex is freely undertaken without interference or resentment is a persistently popular but groundless myth.

The Psychological Link between Male Sexual Jealousy and Violence

"Fearful or wary of being supplanted; apprehensive of loss of position or affection" is a dictionary definition of "jealous" (Morris, 1976). Jealousy is best characterized as a complex psychological state or mode of operation, activated by a perceived threat that a third party might usurp one's place in a valued relationship, which generates a diversity of circumstantially contingent responses ranging from vigilance to violence, aimed at countering such threats (Wilson & Daly, 1992a). Jealousy is sexual if the valued relationship is sexual.

The state of sexual jealousy is one component of the sexually proprietary mindset: a relatively dynamic state of attentional allocation and readiness to act, normally aroused by imminent cues of rivalrous threat. (Although jealous arousal can be chronic in some individuals, the inappropriate persistence of the jealous state is likely to be deemed pathological; see below.) In addition to jealous arousal, sexual proprietariness encompasses motives and actions that may be effective in the prevention of a threat of trespass or usurpation, as well as responses thereto.

As noted earlier, sexual rivalry is ubiquitous in male mammals because their fitness has been limited by access to female reproductive efforts. But where males, too, invest parentally, cuckoldry risk adds a further dimension: Bad enough to lose a fertilization to a rival, but a much greater selective penalty befell the cuckold who invested in the rival's child as his own. If there is a corresponding threat to woman's fitness, it is not that she would be analogously cuckolded, but rather that her mate would channel resources to other women. It follows that men's and women's proprietary feelings toward mates are likely to have evolved to be qualitatively different, men being more intensely concerned with sexual infidelity *per se* and women more intensely concerned with the allocation of their mates' resources and attentions. This is precisely what psychological studies of sex differences in jealousy show (Buss, Larsen, Westen, & Semmelroth, 1992; Daly, Wilson, & Weghorst, 1982; Teismann & Mosher, 1978).

Of special interest in the present context are jealousy's psychological links to anger and violent action, links which also appear to be sexually differentiated (Wilson & Daly, 1992a). The most direct testimony to this linkage is to be found in homicides. Daly & Wilson (1988a) reviewed studies of the motives and circumstances in uxoricides (wife-killings) from a variety of societies, and found that the majority of cases in every well-described sample were precipitated by suspected or actual female infidelity and/or by the woman's decision to leave the marriage. "Jealousy" furthermore led the list of police attributions of substantive issues in spousal homicides, and the jealous party was generally the man, regardless of which partner ended up dead. For subsequent corroborative evidence, see Allen (1990), Campbell (1992), Crawford and Gartner (1992), Mahoney (1991), Polk and Ranson (1991), and Wilson & Daly (1992b,c).

A minority of wife-killers are found "unfit to stand trial" or "not guilty by reason of insanity," and these are often diagnosed as psychiatric cases of "morbid jealousy" (e.g., Mowat, 1966) on the basis of obsessive concern with suspected infidelity and a tendency to invoke bizarre "evidence" in support. However, most jealous wife-killers are not considered insane. Quite the contrary: Anglo-American common law specifically deems killing upon the discovery of a wife's adultery to be the act of a "reasonable man" and deserving of reduced penalty (Wilson & Daly 1992 a,b). Other legal traditions — European, Oriental, Native American, African, Melanesian — all concur (Daly, Wilson, & Weghorst, 1982). Not only is jealousy deemed "normal," but so even is lethal reaction, at least if perpetrated by a man and in the heat of passion.

Moreover, violent sexual jealousy is deemed normal or at least unsurprising both in societies in which the cuckold's violence is seen as a reprehensible loss of control (e.g. Dell, 1984) and in those where it is seen as a praiseworthy redemption of honor (e.g. Safilios-Rothschild, 1969; Besse, 1989). The cross-cultural familiarity of jealous rages supports the view that the psychological links between sexual proprietariness and violent inclinations are not arbitrary aspects of particular cultures, but are evolved aspects of human male psychology.

A Wife's Desertion is an Impetus to Male Violence

The distinction between a woman's adultery and her wanting to end the relationship altogether illustrates two related but distinct adaptive problems underlying male sexual proprietariness. Although only the former places the man at risk of misdirected paternal investment in another man's offspring, most homicide researchers have lumped them as "jealousy" cases, apparently because of the similar aggressively proprietary attitude of the killers, who seem to react to adultery and desertion as more or less the same thing. From the perspective of natural selection, they are in a sense similar: the important commonality is that the man loses control of female reproductive capacity and hence loses ground in the reproductive competition between men.

Women attempting to leave men are frequent homicide victims (Allen, 1990; Barnard, Vera, Vera & Newman, 1982; Crawford & Gartner, 1992; Mahoney, 1991; Wallace, 1986; Wilson & Daly, 1993), and killers' vows that "If I can't have her, nobody can" are recurring features of such cases (e.g. Campbell, 1992). Despite reduced access or "opportunity," wives often incur greater risk of homicide by their husbands when separated from them than when coresiding (Figure 1). Coresidency status does not appear to have a similar bearing on the risk to husbands. Moreover, the excess risk incurred by separating wives is much worse than Figure 1 conveys, since the homicide rates were computed with population-at-large

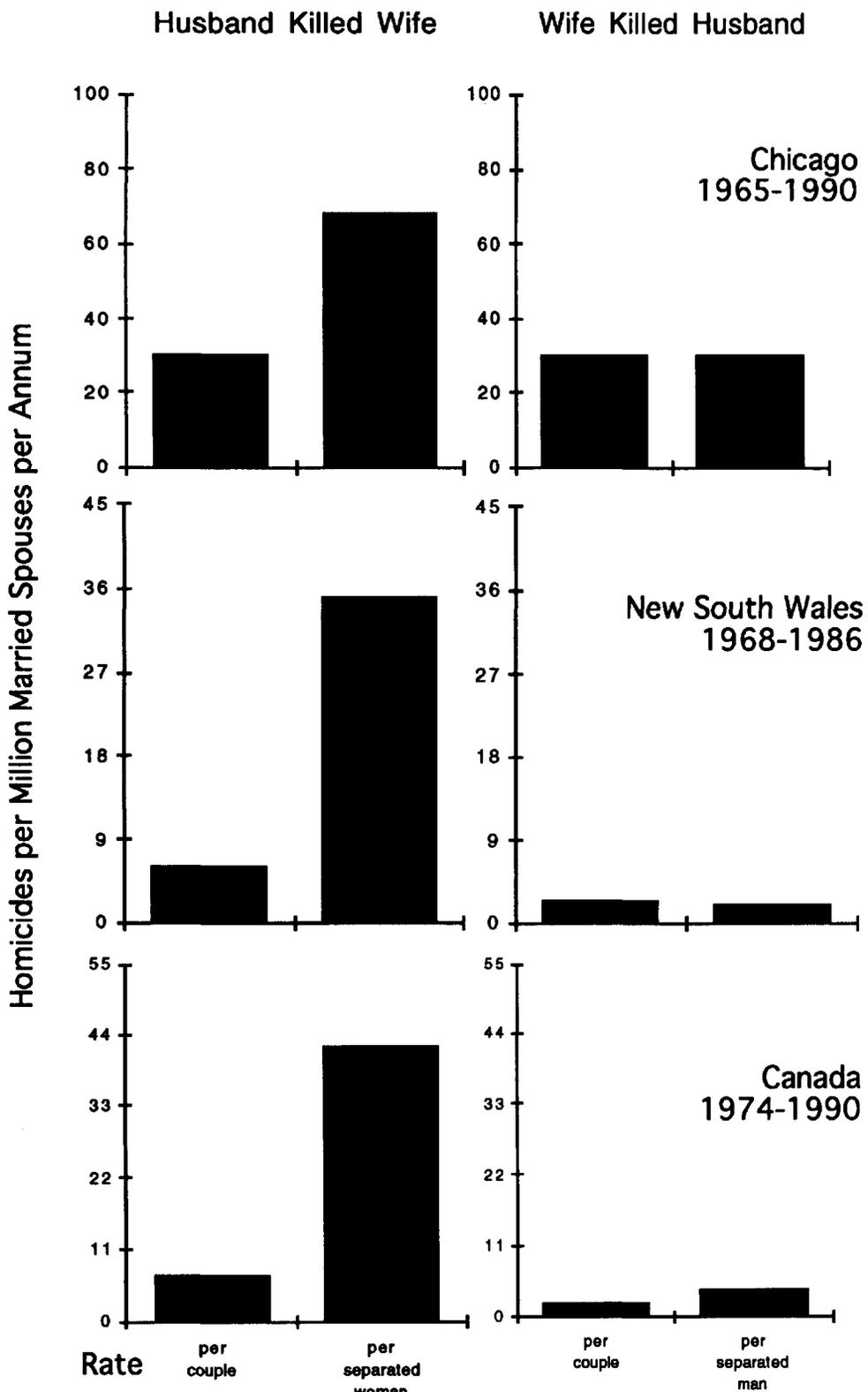


Figure 1. Homicides per million registered-marriage spouses per annum, according to whether the couple were coresiding or separated at the time of the homicide.

denominators of all separated women regardless of the duration of separation whereas the homicides occurred mainly within the first couple of months (Wilson & Daly, 1993). Manifestations of the woman's intention of terminating the relationship may also increase the risk of uxoricide while the couple still coreside (Crawford & Gartner, 1992; Wallace, 1986; Wilson & Daly, 1993). Reasons for concluding that separation is itself a risk factor rather than a mere correlate of some more relevant factor are discussed by Wilson & Daly (1993).

When a wife is pursued and killed by a husband she has left, the killer's motive is obviously not merely to be rid of her. Yet if keeping her is his aim, killing is even more clearly counterproductive. Thus, although such killings are often deliberate and even carefully planned, they are anything but rationally instrumental. We propose that such homicides are best interpreted as the dysfunctionally extreme manifestations of violent inclinations whose lesser expressions are effective in coercion, for although uxoricide may seldom serve the interests of the killer, it is far from clear that the same can be said of sublethal wife abuse. This interpretation is reinforced by evidence that the motives and risk factors relevant to uxoricide have similar relevance for sublethal wife-beating (Wilson & Daly, 1992; Wilson, Daly, & Wright, 1993). A credible threat of violent death can very effectively control people, and the risks to estranged wives suggest that such threats by husbands are often sincere. Moreover, unlike threats or assaults directed at strangers, the coercive use of violence by husbands has often had a legitimacy that enhances the coercive power of the threats.

Violence Is a Male Resource

There is a broad sex difference in human violence, whether in fisticuffs, warfare, or the slaughter of game (Murdock, 1967). Men possess evolved morphological, physiological, and psychological means for effective use of violence (Daly & Wilson, 1988a; 1990; 1993; Wilson & Daly, 1985). In modern nations where the state monopolizes legitimate use of violence, we easily forget the value of a credible threat of violence, but in non-state societies, such a threat was (and is) essential for deterring violations of one's interests and a crucial component of the reputation needed to acquire and maintain status and power (Chagnon, 1992). If men have indeed evolved violent capabilities to compete with other men, it is hardly surprising that they should sometimes use those capabilities in conflicts with women; the objects of male violence are mostly male rivals (e. g., Daly & Wilson, 1990), but wives are the victims too.

As noted above, uxoricide seems counterproductive. The utility of sublethal wife-beating may also be doubted. Violence can be a costly way to extract compliance: rather than making its victims wish to comply, violence inspires them to defiance when the opportunity arises. Severe assaults can elicit severe self-defensive measures and revenge by victims or their relatives (Browne, 1989; Campbell, 1992b; Daly & Wilson, 1988a). It follows that violence is often the recourse of desperate people lacking access to the positive incentives that might inspire more "voluntary" compliance. Moreover, a seemingly inexpensive and effective initial use of violence can embroil one in escalating hostilities, closing off any possibility of negotiation.

In the case of wife-beating, one implication would seem to be that a man is especially likely to resort thereto when he perceives his control of his wife to be tenuous and he lacks material or other incentives to retain her. Another implication is that the violence, once begun, is likely to escalate, because each beating, even if effective in intimidating the woman and reducing her likelihood of imminent departure, also raises her general level of incentive to quit the relationship, inspiring the man to escalated coercion.

Coercive Control of Women without Overt Violence

Anthropological and historical evidence suggests that wherever there is significant variance in resources, high status men have parlayed their resources and power into polygynous monopolization of women (wives and/or concubines) and have been concerned to "protect" their women from potential rivals (Betzig, 1986). Relatively recently in human history, with the inequities engendered by agricultural surpluses and the rise of complex, role-differentiated societies, extreme polygyny and extreme sequestering of women became possible. The most despotic harem holders confined women in cells guarded by eunuchs, maintained records of their menstrual cycles, farmed them out to the harems of underlings when they got too old, and even killed and replaced them *en masse* in the event of security failures and possible cuckoldry.

Harem acquisition is a novelty on an evolutionary timescale, and is neither an evolved adaptation in its own right nor a consequential selection pressure. But harems provide evidence about evolved psychology in the same way that refined sugar does: they testify to evolved appetites. The widespread establishment of harems falsifies the theory that men want multiple wives because they are economic assets. Proponents of this view have insisted that wives are sought as means to wealth, power, and status rather than as perquisites thereof, but harem occupants are typically maintained at great expense and prevented from being productive. This oddly recurring institution also demonstrates that men who collect women are not simply pursuing sexual variety, for in every independent invention of the harem phenomenon, exclusivity of sexual access appears to have been one of the despot's main preoccupations (Betzig, 1986).

Only the richest and most powerful men could collect harems, but millions of men have guarded and constrained "their" women by practices that seem to depart from those of despots only in degree. Veiling, chaperoning, *purdah*, and incarceration of women are common social institutions of patrilineal-patrilocal societies, and the significance of these practices is evident when one notes that it is only women of reproductive age who are confined. Prepubertal children and postmenopausal women enjoy considerable freedom. Coercive control is also achieved by genital mutilations designed to destroy the sexual interest of women and even their penetrability until surgically reopened (Hicks, 1986; Hosken, 1979); less violent solutions are chastity belts of countless variety. Clausturation and chastity belts might be interpreted simply as solutions to male-male competition, but practices like clitoridectomy and infibulation show that the women are being "guarded" not only from "predatory" males but from their own inclinations.

Moreover, clausturation practices are status-graded (Dickemann, 1979, 1981). The higher her social status, the more restricted the woman, a seemingly paradoxical correlation until one considers that high-status men have both a relatively great concern about the paternity of their heirs and the wherewithal to confine women even if it requires foregoing their productive labor. (Chinese foot-binding was a status-graded practice that simultaneously made an ostentation of the male owner's capacity to dispense with the woman's labor and rendered her incapable of flight.) Economic inequities persist in modern state societies, but the variance in men's access to women has been greatly tempered in comparison to despotic harem societies. Most notable in this regard is the rapid spread of legislated monogamy. Why this happened in spite of the persisting polygynous inclinations of powerful men has been considered by Betzig (1986; 1991) and MacDonald (1990). We would expect that the prevalence and intensity of coercive control of women is lessened when the variance in men's access to women is reduced.

SOURCES OF VARIABILITY IN THE VIOLENT MANIFESTATIONS OF MEN'S SEXUAL PROPRIETARINESS

Social phenomena vary systematically both within and between societies. An evolutionary psychological perspective can shed light on both sorts of variability in violence against wives, by suggesting which social cues are likely to activate sexually proprietary psychological mechanisms. Wherever the relevant cues are salient, recurring and prevalent, manifestations of male sexual proprietariness are expected to be diverse, culturally elaborated, and frequent. The psychological link between jealousy and anger suggests that cues of imminent threat of loss of sexual exclusivity may be manifested in violent action. Moreover, the prevalence and intensity of such violence is expected to reflect local sanctions. The target of a jealous man's rage may be the woman, the rival, or both, and again, the target(s) selected may be expected to reflect sanctions, as well as the social status of each party, and the circumstances of the alleged trespass.

Hypotheses about Patterned Variations in Male Sexual Proprietariness and Violence

If male sexual proprietariness represents complex evolved psychological adaptation, designed by selection to promote male fitness in ancestral environments, and if, like any adaptation, it is costly (since mate-guarding takes time away from other potentially useful activities, while violence and even threats entail risk of injury from retaliatory or defensive violence), then sexually proprietary attentions and actions should have evolved to be allocated in response to cues of expected utility. Many male birds, for example, guard their mates closely during their fertile phase, but cease once the last egg is laid.

In human beings, we hypothesize that such variable cuing of sexual proprietariness affects behavioral variability both within and between societies. Some phenomena, such as age-related changes in fertility, are cross-culturally general and likely to account for within-society variability in more or less similar ways. Others, such as the risk imposed by desperate, disenfranchised male rivals, vary across societies and may therefore be expected to account for some of the between-society variance in proprietary manifestations. We have organized the following hypotheses suggested by our evolutionary psychological perspective on violence against wives according to five thematic issues.

1. Intensity of Intrasexual competition.

The degree of coercive constraint of wives, including violence, is predicted to reflect cues of the local, contemporaneous intensity of male sexual competition and poaching. Relevant cues may include encounter rates with potential male rivals; whether they are encountered alone or in all-male groups as opposed to being accompanied by women (that is, cues of bachelor pressure); cues of the status, attractiveness, and resources (hence, mate value) of rivals relative to oneself, and of other social groups or categories (lineages, castes, etc.) relative to one's own social group or category; and cues of local marital (in)stability.

Local cues of life trajectory and life expectancy are also predicted to be relevant. Evolved psychologies use cues of future prospects and expected lifespan in assessing whether to accept present risks (Daly & Wilson, 1990; Wilson & Daly, 1985); one's rivals are likely to be relatively undeterred by the dangers associated with adulterous

overtures, for example, when their own life prospects are poor. Being part of a relatively large age cohort should also be expected to intensify male-male competition, especially where same-age women are unavailable; thus, cohort size effects on intrasexual rivalry and hence on the coercive constraint of women may be especially evident where age disparities at marriage are large.

Parameters like relative cohort size, expected lifespan, local marital stability, local prevalence of adultery, and so forth, clearly cannot be "cued" simply by stimuli present at the time of behavioral decisions, but must instead be apprehended cumulatively over large parts of the lifespan. This implies that people develop mental models which cannot be quickly modified or discarded, and that the "inertial" aspects of such development help explain why emigrants, for example, may not easily assimilate new cultures (see Tooby & Cosmides, 1992).

When individual men monopolize multiple women, whether as wives or concubines, others are consigned to bachelorhood, and male-male competition is exacerbated (Betzig, 1986; 1991). On this basis, we may expect marital coercion and violence to be more extreme in polygynous than in monogamous populations. Levinson (1989) indeed found a significant correlation across non-state societies between his wife-beating codes and a dimension ranging from polyandrous through monogamous to polygynous marriage. We hypothesize that the real relationship will prove to be stronger than his results indicated, since he rank-ordered polygyny in a manner unrelated to the crucial consideration of the variance in men's access to women, and since marital polygyny is an imperfect indicator of the breeding system and hence of the intensity of intrasexual competition.

2. Factors affecting the woman's attractiveness to rivals.

(a) *Risk of conception.* Men's jealousy should prove to be variably aroused at least partly in relation to variable attributes of women. A man is vulnerable to cuckoldry as a result of wifely infidelity, for example, only when his wife is fertile; while he may be concerned to protect a pregnant wife from various sorts of harms, he need not protect her from insemination by rivals.

In a rare investigation of human mate-guarding, Flinn (1988) found that men indeed appear to be sensitive to correlates of cuckoldry risk. Flinn recorded the identity, whereabouts, and activities of everyone he saw during standardized walks through a Caribbean village, in which heterosexual relationships were unstable and often nonexclusive, and in which men directed paternal investments selectively to their own offspring rather than to their stepchildren or to the woman's children sired by other men. He found that men spent more time with partners who reported having menstrual cycles than with those who were pregnant or postmenopausal; that men displayed more agonism both to their wives and to other men when their wives were cycling than in other reproductive conditions; that there was more agonistic interaction between sexual partners whose relationship was nonexclusive than between monogamous pairs; and that hostile male-male interactions were especially characteristic of men who were simultaneously sexually involved with a nonmonogamous woman. We expect that these patterns will prove to be widespread.

(b) *Reproductive Value.* The statistically expected future reproduction of an individual, given her age, condition and circumstances, is her "reproductive value" (RV: Fisher, 1958). Evolutionary biologists find this quantity a useful predictor of intraspecific variations in reproductive behavior and physiology. In animals that exhibit mate

fidelity across successive reproductive episodes, RV is a measure of the fitness value and hence the attractiveness of potential mates.

The RV of women is maximal soon after puberty, and begins to decline steeply in the 30's. As one would then expect, youth is a major determinant of women's sexual (Kenrick & Keefe 1992) and marital (e. g. Borgerhoff Mulder, 1988; Buss & Barnes 1986; Glick & Lin 1987) attractiveness. These age-related "opportunity" and "motivational" considerations, as well as other factors including childlessness, suggest that young wives may be more likely than older wives to terminate an unsatisfactory marriage, more likely to be approached by sexual rivals of the husband, and more likely to form new sexual relationships. Hence, we hypothesize that men will be especially jealous, proprietary and coercive toward younger wives.

Uxoricide risk is indeed maximal for the youngest wives in the modern west (Daly & Wilson, 1988a; b; Mercy & Saltzman, 1989; Wilson, Daly, & Wright, 1993); this seems paradoxical given that men allegedly "value" young wives maximally, unless one views uxoricides as the dysfunctional extremes of "normal" coercive violence. The direct relevance of wife's youth to husband's violence has not been established, however, since many other variables are confounded with her age, including parity and childlessness, duration of the union, and the man's own age. Since young men are the most violent age-sex class generally (e.g. Daly & Wilson, 1990; Wilson & Daly, 1985), an obvious hypothesis is that male age is actually the relevant factor. This seems not to be the case, however, or at least not the whole story, since young wives married to older husbands actually incur greater risk than those married to young husbands (Wilson & Daly, unpublished data).

It is sometimes suggested that male jealousy cannot be an evolved adaptation because men remain jealous of postmenopausal or otherwise infertile women. This argument ignores the fact that adaptations can only have evolved to track ancestrally informative cues of fertility, and not fertility itself. In a modern society with contraception and diverse cosmetic manipulations, postmenopausal women are likely to exhibit fewer cues of age-related declining RV than still-fertile women in foraging societies.

3. Situational Cues of Possible Infidelity.

In addition to attributes of the woman that affect rivals' interest in her, husbands have access to situational information concerning risks of infidelity. A man whose wife has been under continuous surveillance, either by himself or by trusted allies such as close kin, can be relatively confident; conversely, unmonitored absences may be deemed cause for concern (e.g. Fricke, Axinn, & Thornton, 1993). Baker and Bellis (1989) report a particularly interesting psychophysiological response to lapses of personal surveillance: the number of sperm transferred in stable couples' copulations tracks the proportion of the time since their last copulation that they spent apart, paralleling findings of modulated "sperm competition" tactics in other pair-forming animals. We hypothesize that, all else equal, men will also be more sexually demanding, threatening and coercive when circumstances dictate that their wives are relatively unmonitored.

Where control of women by husbands and husbands' kin is constrained, as for example in matrilineal-matrilocal societies in which men make prolonged foraging excursions, men sometimes play little paternal role and direct their "parental" efforts to known relatives, especially their sisters' children. Evolution-minded anthropologists have interpreted such

“avuncular” investment and inheritance as a facultative response to uncertain paternity (e. g. Flinn, 1981; Flinn & Low, 1986). Critics of this argument have sometimes noted that the rate of misattributed paternity would have to be implausibly high for sisters’ sons to have a higher expected relatedness to a man than his wife’s children, but the issue is not simply which heir an adaptive male psychology “should” prefer. Any degree of paternity uncertainty makes daughter’s children surer grandchildren than son’s children, for example, and so men may be pressured by their own parents to invest avuncularly; the question, then, is how uncertain paternity interacts with other factors to affect the resolution of conflicts (see Hartung, 1985). In the absence of risk of misdirected paternal investment, men in avuncular societies may be expected to be relatively less concerned about wifely fidelity, but male sexual proprietariness may still be aroused by cues of the intensity of male intrasexual competition.

Even if we accept as a given that wifely infidelity is an exceptionally potent elicitor of anger, there remains a question about the anger’s target. We have argued above that violent inclinations toward the wife are functionally coercive, implying that the sexually proprietary male psyche treats knowledge or suspicion of an episode of adultery as predictive of repeat episodes, unless the woman’s unfaithful inclinations are deterred. But what if the man is presented with evidence that unfaithful inclination on the part of his wife was not at issue? If infidelity seems clearly to have been coerced, as in rape with injury, violent anger ought mainly to be directed at the usurper, although signs of weak resistance might elicit hostility directed at the woman, too (see Thornhill & Thornhill, 1983; 1992). Moreover, it is noteworthy that even unequivocally blameless rape victims are often devalued as “damaged goods” by husbands and relatives with proprietary interests in them (Wilson & Daly, 1992a).

4. Female Choice.

(a) *Coerced marriage.* As we noted earlier, people take a strong manipulative interest in others’ marriages. In many societies, marriage is arranged, with the very real possibility that the bride and/or groom are dissatisfied with the choice. In mediaeval England, for example, children could be “espoused” as early as 7 years of age, with the Christian church sanctifying the commitment; a recalcitrant bride who eloped with the man of her choice before her espoused marriage was consummated could cause severe repercussions for her father who had promised her to another man, and a father was likely to launch proceedings against his daughter’s “abductor” in such circumstances. Legislation reinforced fathers’ interests by stripping eloping daughters of all claims against their families’ property. It would not be surprising to discover that wives in unsatisfactory arranged marriages incurred risk of violence by jealous husbands.

One vivid example of the violence that women will risk to escape from their husbands comes from Chagnon’s (1992) study of the Yanomamö. Men in this society sometimes raid other villages, killing the men and capturing the women. Violence and threats of violence are effective in deterring these “wives” from escaping. But a woman may take the risk, and “on her own, flees from her village to live in another village and find a new husband there. If the woman’s own [husband’s] village is stronger than the one she flees to, the men will pursue her and forcibly take her back — and mete out a very severe punishment to her for having run away. They might even kill her. Most of the women who have fled have done so to escape particularly savage and cruel treatment, and they try to flee to a more powerful village” (Chagnon, 1992, p. 149).

(b) A reputation for violence as a desirable trait in a man. Given the costs to women of enduring a husband's violence, it may initially seem counterintuitive that violence might be useful and hence attractive in a man. But it is often clearly useful in a kinsman: women commonly rely on brothers and other male kin to protect them from abusive husbands (Campbell, 1992b; Smuts, 1992). Yanomamö women, for example "dread the possibility of being married to men in distant villages, because they know that their brothers will not be able to protect them" (Chagnon, 1992, p. 149). Moreover, in communities where women are at risk of being abducted by other men, as among the Yanomamö, or even where sexual harassment and assault by strangers and acquaintances are chronic, a husband with a reputation for vengeful violent action can be a valued social resource. However, violent men as husbands or brothers may be risky propositions for women. We would anticipate that wherever local rates of sexual assault are chronically high or where material and social rewards are gained by the effective use of violence, a reputation for controlled use of violence may be perceived as a valuable trait in a husband. In the absence of marital conflict such a choice *may* run little risk for the woman.

5. Costs to Husbands of Using Violence.

(a) Social sanctions. Evolved psychologies are sensitive to costs, so we hypothesize that violence against wives will be more prevalent where it is more legitimate. However genuine rage may be, angry men are seldom impervious to social controls. Quantitative data bearing on this issue are regrettably sparse, but the ethnographic record at least impressionistically supports the generalization that societies vary greatly in their incidences of severe wife assault, and that even vengeful husbands are sensitive to the probable costs of violence.

Several authors have argued that wife battering is rarer or less severe in societies where wives retain close contact with genealogical kin, who deter husbands from serious abuse (e. g., Campbell, 1992b; Chagnon, 1992; Draper, 1992; Smuts, 1992). Variation in access to male kin is apparently related to variable vulnerability of wives within societies, too, even relatively matrilocal societies (H. Kaplan & K. Hill, pers. comm., 1990). Oddly, however, Levinson (1989) found no support for the hypothesis that access to kin protects wives from abuse in non-state societies: prevalence of wife-beating was apparently unrelated to postmarital residence practices in a cross-cultural tabulation. One problem with this null result is that wife-beating codes based on ethnographic materials are noisy; however, Levinson's codes were significantly related to variables like widow remarriage proscriptions and the presence or absence of all-female work groups. A more important problem is that Levinson's test of relationship was a rank-order correlation even though postmarital residence practices were coded on a five-point scale whose ordering did not correspond to lesser/greater access to genealogical kin. We hypothesize that better cross-cultural methods will overturn Levinson's null result.

(b) Wives' Resistance. Wives sometimes kill husbands, perhaps mainly in self-defensive resistance to male coercive control (Wilson & Daly, 1992c). In some societies, wives vastly outnumber husbands as victims, while body counts are more nearly equal in others (Table 1). The contrast between the United States and other English-speaking industrialized nations is especially striking, and Wilson & Daly (1992c) showed that this contrast cannot be attributed to greater gun use in the United

States. Neither is it due to a general diminution of sex differences in the use of lethal violence regardless of victim-killer relationship; variability in the sex ratio of killing (SROK) is specific to the marital relationship. Moreover, despite large differences in the spousal SROK between the United States and other nations, several factors affecting this ratio had similar impacts across the board: the victimization of wives was greater relative to that of husbands (the SROK was lower) in registered than in de facto marriages, in separated couples than in those still coresiding, in markedly age-discrepant couples where the wife was older, and in cases where a gun was used.

One thing that is clearly common to these western nations with their variable SROKs (and variable rates of spouse-killing) is the relevance of male sexual proprietariness, as discussed earlier. The high SROK in the United States does not imply that wives' and husbands' actions or motives are more alike in that country. Rather, in the United States as elsewhere, men often pursue and kill estranged wives while women hardly ever behave similarly; men, but not women, kill spouses as part of planned murder-suicides; men perpetrate familicidal massacres, killing spouse and children together, while women do not; men, but not women, kill after prolongedly subjecting spouses to coercive abuse; men kill in response to revelations of wifely infidelity, while women almost never react similarly; and women, unlike men, kill mainly in circumstances with strong elements of self-defense or defense of children (references in Wilson & Daly, 1992c).

Table 1: Number of Spousal Homicides and the Spousal Sex Ratio of Killing (SROK = Homicides Perpetrated by Women per 100 Perpetrated by Men) in Various Homicide Samples

Data Set	Killer		SROK
	Man	Woman	
United States 1976-1985	10,529	7,888	75
Chicago, Ill. 1965-1989	844	862	102
Detroit, Mich. 1972	36	43	119
Detroit, Mich., 1982-1983	28	56	200
Houston, Tex. 1969	19	26	137
Miami, Fla. 1980	23	20	87
Philadelphia, Pa. 1948-1952	53	47	89
New South Wales 1968-1986	303	95	31
Canada 1974-1983	812	248	31
Denmark 1933-1961	96	16	17
England/Wales 1977-1986	981	223	23
Scotland 1979-1987	99	40	40
Africa, Mid-20th Century			
Tiv, Luo, Soga, Gisu, Nyoro, Luyia	70	4	6
India			
Bison-Horn Maria 1930-1940s	20	0	0
Munda, Oraon, Bhil 1960s	14	0	0

NOTE: Most published studies of homicides do not classify cases in a manner permitting inclusion in this table; often, the set of cases has been selected on some potentially biasing criterion, such as arrest or conviction, and even where all cases known to the police have been tabulated, spousal cases have seldom been distinguished from others. (See Wilson & Daly 1992c for sources.)

So whence the variability in SROK? One hypothesis is that wives' lethality approaches husbands' specifically when women feel the need to defend children of former unions against their current mates. By the same reasoning by which a man may be expected to possess evolved defenses against cuckoldry, we may expect him to exhibit less than full paternal commitment to stepchildren; his wife's investments in his predecessors' children (and demands that he, too, invest) can thus be a potent source of marital conflict (Daly & Wilson, 1988c). Stepchildren themselves incur greatly elevated risks of both fatal and nonfatal abuse (Wilson, Daly, & Weghorst 1980; Daly & Wilson 1985; 1988b), and their presence is a major risk factor for violence against wives, too (Daly, Singh, & Wilson, 1993). We would therefore expect that wherever stepfather families are prevalent, women would be readier to use dangerous defensive tactics, and the SROK values would be higher. We hypothesize that the incidence of steprelationship will prove relevant to relatively high SROK values in, for example, American cities and in *de facto* as compared to registered marriages.

Another hypothesis is that the spousal SROK value rises when wives feel socially empowered to retaliate against male coercion. The Indian and African peoples in Table 1, among whom women scarcely ever killed their husbands, were strongly patrilineal societies with brideprice and patrilocal residence. In such societies, an abused wife, cut off from her kin, may feel she has no recourse other than suicide or flight; violence against the husband is futile and almost unthinkable (e. g. Counts, 1990)³. Conversely, an abused wife surrounded by supportive relatives has more assertive options available, and she may be especially tempted to react violently in the absence of the services of protective legal or political institutions.

CONCLUDING COMMENTS

Many other factors influence the utility and the costs of sexually proprietary violence, and are therefore likely to affect its prevalence insofar as men are facultatively responsive to appropriate cues. Reputational effects, for example, can run either way: wife-beating is a shameful act of cowardice in some societies and an obligation for salvaging honor in others. The proposition that angry resentment of infidelity is an evolved characteristic of the male mind in no way implies that men should be impervious to these social pressures. Rather, an evolutionary psychological perspective helps clarify why such initially puzzling variability in norms about wife-beating exist. Wife-beaters are considered bullies, for example, where alternative means of controlling female sexuality make such violence superfluous.

Some prominent anthropologists have insisted that cultural variations are without utilitarian significance (e. g. Sahlins, 1976). Indeed, arbitrariness with respect to function ("dog" versus "chien") is sometimes deemed definitional of a cultural distinction. But societal differences in social practices and institutions are clearly not always arbitrary, and perhaps hardly ever. We know that they are not arbitrary because of powerful statistical associations among marriage practices, modes of kinship reckoning, subsistence ecology, inheritance, incest rules, childhood socialization practices, and so forth, associations which have been increasingly successfully elucidated and predicted by evolution-minded anthropologists (e. g., Flinn, 1981; Flinn & Low, 1986; Gaulin & Schlegel, 1980; Low, 1989; Thornhill, 1991).

We have argued that the particular cues and circumstances which inspire men to use violence against their partners reflect a domain-specific masculine psychology which evolved in a social milieu in which assaults and threats of violence functioned to deter wives from pursuing alternative reproductive opportunities, which would have represented consequential threats to husbands' fitness. Although the motives in the majority of uxoricides and sublethal wife-beating across cultures and across centuries indeed reflect male sexual proprietariness, it is important to note that the actual rates at which women are slain or beaten by husbands are enormously variable. Women in the United States today face a statistical risk of being slain by their husbands that is about five to ten times greater than that faced by their European counterparts, and in the most violent American cities, risk is five times higher again. It may be the case that men have proprietary inclinations toward their wives everywhere, but they do not feel equally entitled to act upon them everywhere.

NOTES

1. Biologists note that there are additional sources of evolutionary change, including mutation, migration, and fortuitous differential mortality. But only selection generates functional complexity.

2. This process is defined in evolutionary biology more technically and precisely as promoting the relative replicative success of one's genes, in competition with alternative forms of the same gene (alleles). The term "fitness" (which was coined by the sociologist Herbert Spencer) has produced a lot of misunderstanding, for it has been used by evolutionists in several slightly different senses, none of which corresponds to its vernacular meaning of physical condition (Dawkins, 1982).

3. These considerations suggest the following cross-cultural hypothesis: the suicide rate of married women will be higher, relative to that of other demographic groups, in patrilocal societies than in neolocal, and higher in neolocal societies than where wives have continuing contact with their relatives.

REFERENCES

- Allen, J. A. (1990). *Sex and secrets. Crimes involving Australian women since 1880*. Melbourne: Oxford University Press.
- Atkins S., & Hoggett B. (1984). *Women and the law*. Oxford: Blackwell.
- Baker, R. R., & Bellis, M. A. (1989). Number of sperm in human ejaculates varies in accord with sperm competition theory. *Animal Behaviour*, 37, 867-869.
- Barnard, George W., Vera, H., Vera, M. I., & Newman, G. (1982). Till death do us part: A study of spouse murder. *Bulletin of the American Association of Psychiatry and Law*, 10, 271-280.
- Besse, S. K. (1989). Crimes of passion: The campaign against wife killing in Brazil, 1910-1940. *Journal of Social History*, 22, 653-666.
- Betzig, L. (1986). *Despotism and differential reproduction: A darwinian view of history*. Hawthorne, NY: Aldine de Gruyter.
- Betzig, L. (1991). History. In M. Maxwell, (Ed.), *The sociobiological imagination*. Albany, NY: SUNY Press.
- Bloch, M. (1977). The past and the present in the present. *Man*, 12, 278-292.
- Borgerhoff Mulder, M. (1988). Kipsigis bridewealth payments. In L. Betzig, M. Borgerhoff Mulder., & P. Turke, (Eds.), *Human reproductive behaviour*. Cambridge: Cambridge University Press.

- Brown, D. (1991). *Human universals*. New York: McGraw-Hill.
- Browne, A. (1985). Assault and homicide at home: When battered women kill. In M. J. Saks & L. Saxe (Eds.), *Advances in applied social psychology*, (vol. 3). Hillsdale NJ: Erlbaum.
- Browne, A. (1987). *When battered women kill*. New York: Free Press.
- Buss, D. M., & Barnes, M. F. (1986). Preferences in human mate selection. *Journal of Personality & Social Psychology*, 50, 559-570.
- Buss, D., Larsen, R. J., Westen, D., & Semmelroth, J. (1992). Sex differences in jealousy: Evolution, physiology, and psychology. *Psychological Science*, 3, 251-255.
- Campbell, J. C. (1992a). If I can't have you, no one can: Issues of power and control of homicide of female partners. In J. Radford & D. E. H. Russell, (Eds.), *Femicide: The politics of woman killing*. New York: Twayne.
- Campbell, J. C. (1992b). Wife-battering: Cultural contexts versus Western social sciences. In D. A. Ayers, J. K. Brown, & J. C. Campbell, (Eds.), *Sanctions and sanctuary: Cultural perspectives on the beating of wives*. Boulder, CO: Westview Press.
- Chagnon, N. A. (1992) *Yanomamö. The last days of Eden*. San Diego, CA: Harcourt Brace Jovanovich.
- Counts, D. C. (1990). Beaten wife, suicidal woman: Domestic violence in Kaliai, West New Britain. *Pacific Studies*, 13, 151-169.
- Crawford, M. & Gartner, R. (1992). *Woman killing: Intimate femicide in Ontario 1974-1990*. Toronto: Women We Honour Action Committee.
- Daly, M., Singh, L., & Wilson, M. (1993). Children fathered by previous partners: A risk factor for violence against women. *Canadian Journal of Public Health*, 84, 209-210.
- Daly, M., & Wilson, M. (1983) *Sex, evolution, and behavior* (2nd edition). Belmont, CA: Wadsworth.
- Daly, M., & Wilson, M. (1985) Child abuse and other risks of not living with both parents. *Ethology & Sociobiology*, 6, 197-210.
- Daly, M., & Wilson, M. (1988a) *Homicide*. Hawthorne NY: Aldine de Gruyter.
- Daly, M., & Wilson, M. (1988b) Evolutionary social psychology and family homicide. *Science*, 242, 519-524.
- Daly, M., & Wilson, M. (1988c). The Darwinian psychology of discriminative parental solicitude. *Nebraska Symposium in Motivation*, 35, 91-144
- Daly, M., & Wilson, M. (1990). Killing the competition: Female/female and male/male homicide. *Human Nature*, 1, 81-107.
- Daly, M., & Wilson, M. (1993) The evolutionary psychology of male violence. In J. Archer (Ed.), *Male violence*. London: Routledge Kegan Paul.
- Daly, M., Wilson, M., & Weghorst, S. J. (1982). Male sexual jealousy. *Ethology and Sociobiology*, 3, 11-27.
- Davies, N. B. (1992). *Dunnock behaviour and social evolution*. Oxford: Oxford University Press.
- Dawkins, R. (1982). *The extended phenotype*. Oxford: W. H. Freeman.
- Dell, S. (1984). *Murder into manslaughter: The diminished responsibility defence in practice*. Oxford: Oxford University Press.
- Dickemann, M. (1979). The ecology of mating systems in hypergynous dowry societies. *Social Science Information*, 18, 163-195.
- Dickemann, M. (1981). Paternal confidence and dowry competition: a biocultural analysis of purdah. In R. D. Alexander & D. W. Tinkle (Eds.), *Natural selection and social behavior*. New York: Chiron Press.

- Dobash, R. E., & Dobash, R. P. (1979) *Violence against wives*. New York: Free Press.
- Draper, P. (1992) Room to maneuver: !Kung women cope with men. In D. A. Counts, J. K. Brown, & J. C. Campbell (Eds.), *Sanctions and sanctuary. Cultural perspectives on the beating of wives*. Boulder, CO: Westview Press.
- Eberhard, W. G. (1985). *Sexual selection and animal genitalia*. Cambridge, MA: Harvard University Press.
- Edwards, S. (1985). Male violence against women: Excusatory and explanatory ideologies in law and society. In S. Edwards (Ed.), *Gender, sex and the law*. London: Croom Helm.
- Fisher, R. A. (1958). *The genetical theory of natural selection*. (2nd revised edition, originally published 1930.) New York: Dover Press.
- Flinn, M. V. (1981). Uterine vs. agnatic kinship variability and associated cousin marriage preferences. In R. D. Alexander and D. W. Tinkle, (Eds.), *Natural selection and social behavior*. New York: Chiron Press.
- Flinn, M. V. (1988). Mate guarding in a Caribbean village. *Ethology & Sociobiology*, 9, 1-28.
- Flinn, M., & Low, B. (1986). Resource distribution, social competition, and mating patterns in human societies. In D. I. Rubenstein & R. W. Wrangham, (Eds.), *Ecological aspects of social evolution*. Princeton, NJ: Princeton University Press.
- Ford, C. S., & Beach, F. A. (1952) *Patterns of sexual behavior*. New York: Harper and Row.
- Fricke, T., Axinn, W. G., & Thornton, A. (1993). Marriage, social inequality, and women's contact with their natal families in alliance societies: Two Tamang examples. *American Anthropologist*, 95, 395-419.
- Gaulin, S. J. C., & Sailer, L. D. (1985) Are females the ecological sex? *American Anthropologist*, 87, 111-119.
- Gaulin, S. J. C., & Schlegel, A. (1980). Paternal confidence and paternal investment: A cross-cultural test of a sociobiological hypothesis. *Ethology & Sociobiology*, 1, 301-309.
- Geertz, C. (1984). Anti-anti-relativism. *American Anthropologist*, 86, 263-278.
- Glick, P., & Lin, S.L. (1987). Remarriage after divorce: Recent changes and demographic variations. *Sociological Perspectives*, 30, 162-179.
- Haig, D. (1993). Genetic conflicts in human pregnancy. *Quarterly Review of Biology*, 68, 495-531.
- Hartung, J. (1985). Matrilineal inheritance: New theory and analysis. *Behavioral & Brain Sciences*, 8, 661-688.
- Hicks, E. K. (1986). *Infibulation: Status through mutilation*. Alblasterdam, The Netherlands: Offsetdrukkerij Kanters B. V.
- Hosken, F. P. (1979). *The Hosken report. Genital and sexual mutilation of females*. 2d revised edition. Lexington, MA: Women's International Network News.
- Kenrick, D., & Keefe, R. C. (1992). Age preferences in mates reflect sex differences in reproductive strategies. *Behavioral & Brain Sciences*, 15, 75-133.
- Leacock, E. (1980). Social behavior, biology, and the double standard. In G. W. Barlow & J. Silverberg, (Eds.), *Sociobiology: Beyond nature/nurture?* Boulder, CO: Westview Press.
- Leach, E. (1982). *Social anthropology*. Oxford: Oxford University Press.
- Levinson, D. (1989). *Family violence in cross-cultural perspective*. Newbury Park, CA: Sage.
- Low, B. S. (1978). Environmental uncertainty and the parental strategies of marsupials and placentals. *American Naturalist*, 112, 197-213.

- Low, B. S. (1989). Sex, power, and resources: Ecological and social correlates of sex differences. *International Journal of Contemporary Sociology*, 27, 45-71.
- MacDonald, K. (1990). Mechanisms of sexual egalitarianism. *Ethology & Sociobiology*, 11, 1-27.
- Mahoney, M. R. (1991). Legal images of battered women: Redefining the issue of separation. *Michigan Law Review*, 90, 1-94.
- Mayr, E. (1983). How to carry out the adaptationist program? *American Naturalist*, 121, 324-334.
- Mercy, J. A., & Saltzman, L. E. (1989). Fatal violence among spouses in the United States, 1976-85. *American Journal of Public Health*, 79, 595-599.
- Morris, W. (1969). *The American heritage dictionary of the English language*. Boston: Houghton Mifflin.
- Mowat, R. R. (1966). *Morbid jealousy and murder*. London: Tavistock.
- Murdock, G. P. (1967). *Ethnographic atlas*. Pittsburgh: University of Pittsburgh Press.
- Polk, K., & Ranson, D. (1991). The role of gender in intimate violence. *Australia and New Zealand Journal of Criminology*, 24, 15-24.
- Quaife, G. R. (1979). *Wanton wenches and wayward wives*. London: Croom Helm.
- Safilios-Rothschild, C. (1969). 'Honor' crimes in contemporary Greece. *British Journal of Sociology*, 20, 205-218.
- Sahlins, M. D. (1976). *The use and abuse of biology*. Ann Arbor, MI: University of Michigan Press.
- Smuts, B. (1992). Male aggression against women: An evolutionary perspective. *Human Nature*, 3, 1-44.
- Stephens, W. N. (1963). *The Family in cross-cultural perspective*. New York: Holt, Rinehart, and Winston.
- Symons, D. (1979). *The evolution of human sexuality*. New York: Oxford University Press.
- Teismann, M. W., & Mosher, D. L. (1978). Jealous conflict in dating couples. *Psychological Reports*, 42, 1211-1216.
- Thornhill, N. W. (1991). An evolutionary analysis of rules regulating human inbreeding and marriage. *Behavioral and Brain Sciences*, 14, 247-293.
- Thornhill, R., & Thornhill, N. W. (1983). Human rape: An evolutionary analysis. *Ethology & Sociobiology*, 4, 137-183.
- Thornhill, R., & Thornhill, N. W. (1992). The evolutionary psychology of men's coercive sexuality. *Behavioral and Brain Sciences*, 15, 363-421.
- Tooby, J., & Cosmides, L. (1992). The psychological foundations of culture. In J. H. Barkow, L. Cosmides, & J. Tooby, (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford University Press.
- Trivers, R. L. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection and the descent of man, 1871-1971*. Chicago: Aldine.
- Trivers, R. L. (1974). Parent-offspring conflict. *American Zoologist*, 14, 249-264.
- Wallace, A. (1986). *Homicide: The social reality*. Sydney: New South Wales Bureau of Crime Statistics and Research.
- Whyte, M. K. (1978). *The status of woman in preindustrial societies*. Princeton, NJ: Princeton University Press.
- Wilson, M., & Daly, M. (1985). Competitiveness, risk-taking and violence: The young male syndrome. *Ethology & Sociobiology*, 6, 59-73.

- Wilson, M., & Daly, M. (1992a). The man who mistook his wife for a chattel. In J. H. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture*. New York: Oxford University Press.
- Wilson, M., & Daly, M. (1992b). Til death us do part. In J. Radford & D. E. H. Russell (Eds.), *Femicide*. New York: Twayne.
- Wilson, M., & Daly, M. (1992c). Who kills whom in spouse killings? On the exceptional sex ratio of spousal homicides in the United States. *Criminology*, 30, 189-215.
- Wilson, M., & Daly, M. (1993). Spousal homicide risk and estrangement. *Violence & Victims*, 8, 3-16.
- Wilson, M., Daly, M., & Weghorst, S. (1980). Household composition and the risk of child abuse and neglect. *Journal of Biosocial Science*, 12, 333-340.
- Wilson, M., Daly, M., & Wright, C. (1993). Uxoricide in Canada: Demographic risk patterns. *Canadian Journal of Criminology*, 35, 263-291.

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Offprints. Requests for offprints and other correspondence should be sent to Margo Wilson, Department of Psychology, McMaster University, Hamilton, Ontario, L8S 4K1. CANADA.

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