

The Heart of the Matter

The Security of Women and
the Security of States

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What are the roots of conflict and insecurity for states? When the international system is relatively stable, attention turns to differences in state attributes. Some scholars argue that civilizational differences, defined by ethnicity, language, and religion, are an underlying catalyst for conflict and insecurity.¹ Others have spoken of the importance of differentiating between democratic and nondemocratic regime types in explaining conflict in the modern international system.² Still others assert that poverty, exacerbated by resource scarcity in a context of unequal access, is at the root of conflict and insecurity at both micro- and macro-levels of analysis.³

In this article we argue that there is another fundamental and powerful explanatory factor that must be considered when examining issues of state security and conflict: the treatment of females within society. At first glance, this

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1. Samuel P. Huntington, *The Clash of Civilizations and the Remaking of World Order* (New York: Simon and Schuster, 1996).

2. Michael W. Doyle, “Kant, Liberal Legacies, and Foreign Affairs,” *Philosophy and Public Affairs*, Vol. 12, No. 3 (Summer 1983), pp. 205–235; Zeev Maoz and Bruce Russett, “Normative and Structural Causes of Democratic Peace, 1946–1986,” *American Political Science Review*, Vol. 87, No. 3 (September 1993), pp. 624–638; James Lee Ray, *Democracy and International Conflict: An Evaluation of the Democratic Peace Proposition* (Columbia: University of South Carolina Press, 1995); Paul K. Huth and Todd L. Allee, *The Democratic Peace and Territorial Conflict in the Twentieth Century* (Cambridge: Cambridge University Press, 2003); and Zeev Maoz, “The Controversy over the Democratic Peace: Rearguard Action or Cracks in the Wall?” *International Security*, Vol. 22, No. 1 (Summer 1997), pp. 162–198.

3. Thomas F. Homer-Dixon, *Environment, Scarcity, and Violence* (Princeton, N.J.: Princeton University Press, 2001); and Lael Brainard and Derek Chollet, eds., *Too Poor for Peace? Global Poverty, Conflict, and Security in the 21st Century* (Washington, D.C.: Brookings Institution Press, 2007).

argument seems hardly intuitive. How could the treatment of women possibly be linked to matters of high politics, such as war and national security? The two realms seem not to inhabit the same conceptual space. Yet in 2006, Secretary-General of the United Nations Kofi Annan opined, "The world is . . . starting to grasp that there is no policy more effective [in promoting development, health, and education] than the empowerment of women and girls. And I would venture that no policy is more important in preventing conflict, or in achieving reconciliation after a conflict has ended."⁴ It is possible that views such as Annan's are just a nod to political correctness, which can be ignored without consequence by security scholars and policymakers. Yet it is also possible that security scholars are missing something important by overlooking the situation of women in the study of security. In this article we examine the question: Is there a significant linkage between the security of women and the security of states?

When a coauthor of this article raised this question in a departmental research meeting, the answer offered was a swift and certain: "No." Violence wrought by the great military conflicts of the twentieth century was proof that security scholars would do best by focusing on larger issues such as democracy and democratization, poverty and wealth, ideology and national identity. Along a scale of "blood spilt and lives lost" as the proper location of concern for security studies, colleagues queried, Why would one ever choose to look at women? Taken aback by such professed certainty that we were on the wrong course, it took some time for us to articulate an answer. How to explain, for example, that the death toll of Indian women due to female infanticide and sex-selective abortion from 1980 to the present dwarfs by almost fortyfold the death toll from all of India's wars since and including its bloody independence? Perhaps, we reasoned, it would be instructive to consider the scale upon which women die from sex-selective causes. Using overall sex ratios as a crude marker for a host of causes of death by virtue of being female (female infanticide, sex-selective abortion, egregious maternal mortality rates, disproportionate childhood mortality, and murder/suicide rates), we would find ourselves contemplating the numbers in figure 1 in comparison with the great slaughters of the twentieth century.

Because the death tolls for the wars and conflicts listed above include deaths of women as both civilians and combatants, it would not be an exaggeration to suggest that the "blood spilt and lives lost" over the last century have

4. Kofi Annan, "No Policy for Progress More Effective Than Empowerment of Women, Secretary-General Says in Remarks to Woman's Day Observance," United Nations press conference, March 8, 2006, <http://www.un.org/News/Press/docs/2006/sgsm10370.doc.htm>.

been, in the first place, that of females. When thinking of war and peace and national security, many picture a uniformed soldier—male—lying dead on the field of battle, gendering these important issues male. Perhaps fresh vision, such as offered in figure 1, would turn thoughts to the girl baby drowned in a nearby stream or the charred body of a young bride burned in a “kitchen fire” of her in-laws’ making. To pose the question more conceptually, might there be more to inquire about than simply the effect of war on women—might the security of women in fact influence the security of states?

Theoretically, there are strong reasons for believing that there is a relationship between the security of women and the security of states. Gender serves as a critical model for the societal treatment of difference between and among individuals and collectives. A long tradition in social psychology has found three basic differences that individuals notice immediately when they encounter a new person almost from infancy: age, gender, and race.⁵ Although there is some preliminary evidence that recognition of racial differences can be “erased” when such differences are crossed with coalitional status, no one has shown a similar disabling of gender recognition.⁶ Indeed, the psychologist Alice Eagley asserts, “Gender stereotypes trump race stereotypes in every social science test.”⁷ In this way, gender, like age, becomes a basic category of identification and a profound marker of difference.⁸

Gender and age categorizations play variant roles in society. Everyone will someday move into another age group; in general, however, this cannot be said of gender groupings. Gender difference is arguably the primary formative fixed difference experienced in human society,⁹ and sexual reproduction is the

5. Marilyn Brewer and L. Lui, “Primacy of Age and Sex in the Structure of Person Categories,” *Social Cognition*, Vol. 7, No. 3 (1989), pp. 262–274; Susan T. Fiske and Steven L. Neuberg, “A Continuum of Impression Formation, from Category-Based to Individuating Processes: Influence of Information and Motivation on Attention and Interpretation,” in Mark P. Zanna, ed., *Advances in Experimental Social Psychology*, Vol. 23 (Oxford: Academic Press, 1990), pp. 1–74; and Steven Messick and Diane Mackie, “Intergroup Relations,” *Annual Review of Psychology*, Vol. 40 (1989), pp. 45–81.

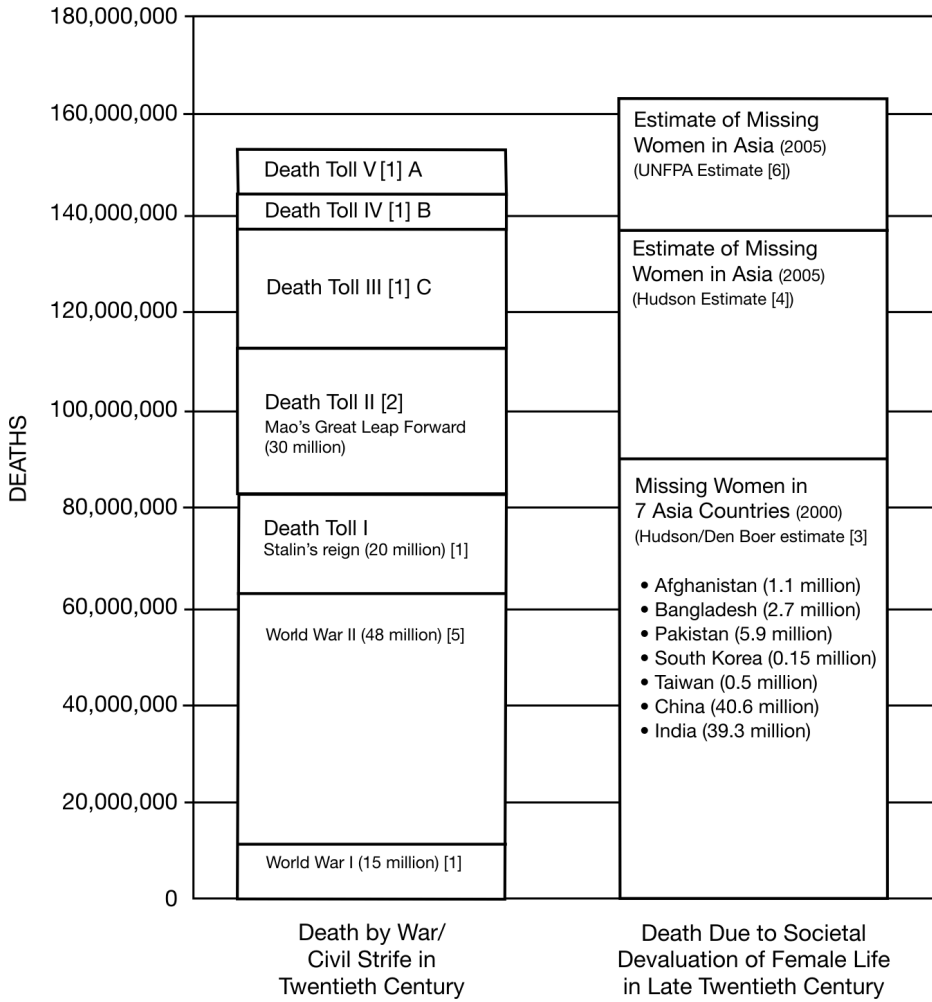
6. Robert Kurzban, John Tooby, and Leda Cosmides, “Can Race Be Erased? Coalitional Computation and Social Categorization,” *Proceedings of the National Academy of Sciences*, Vol. 98, No. 26 (December 18, 2001), pp. 15387–15392.

7. Quoted in Andrew Stephen, “Hating Hillary,” *New Statesman*, May 22, 2008, <http://www.newstatesman.com/north-america/2008/05/obama-clinton-vote-usa-media>.

8. Jacques Derrida, *Of Grammatology* (Baltimore, Md.: Johns Hopkins University Press, 1976); and Jacques Derrida, *Writing and Difference* (London: Routledge, 1978).

9. We recognize that persons in nearly every society, modern and historical, have found ways to modify their assigned gender. This involves a very small minority of persons, however, with gender assignment being otherwise immutable for the overwhelming majority of society. See Ramaswami Mahalingam, Jana Haritatos, and Benita Jackson, “Essentialism and the Cultural Psychology of Gender in Extreme Son Preference Communities in India,” *American Journal of Orthopsychiatry*, Vol. 77, No. 4 (October 2007), pp. 598–609.

Figure 1. Death by War/Civil Strife in the Twentieth Century, and Death Due to Societal Devaluation of Female Life in the Late Twentieth Century



{A}

Death Toll V

- Brazil (1.1 million)
- Russo-Japanese War (0.13 million)
- Balkans (0.14 million)
- German East Africa (0.18 million)
- Libya (0.13 million)
- Greco-Turkish War (0.25 million)
- Spanish Civil War (0.47 million)
- Abyssinia (0.4 million)
- Russo-Finnish War (0.15 million)
- Greek Civil War (0.16 million)
- Tito (0.2 million)
- First Indochina War (0.4 million)
- Colombia (0.2 million)
- Indian partition (0.5 million)
- Romania (0.15 million)
- Burma/Myanmar (0.13 million)
- Algeria (0.7 million)
- Guatemala (0.2 million)
- Indonesia (0.4 million)
- Uganda (0.6 million)
- Angola (0.6 million)
- East Timor (0.2 million)
- Lebanon (0.15 million)
- Iraq (0.7 million)
- Liberia (0.15 million)
- Bosnia (0.18 million)
- Somalia (0.4 million)
- Israel/Arab (0.07 million)
- Angola II (0.08 million)
- Sierra Leone (0.08 million)

{B}

Death Toll IV

- Tibet (0.6 million)
- Mexican Revolution (1 million)
- Ethiopia (1 million)
- Nigeria (1 million)
- Mozambique (1 million)
- Sudan (1.9 million)

{C}

Death Toll III

- Pre-PRC 20th century China (4 million)
- Congo, 20th century (3.8 million)
- Vietnam (3.5 million)
- Korea (2.8 million)
- Afghanistan (1.8 million)
- Khmer Rouge, Cambodia (1.65 million)
- Estimated Armenian genocide (1.5 million)
- Russian Civil War (1.4 million)
- Rwanda/Burundi (1.35 million)
- Bangladesh (1.25 million)
- Iran/Iraq War (1 million)

SOURCES: [1] Matthew White, Source List and Detailed Death Tolls for the Twentieth Century Hemoclysm, <http://users.erols.com/mwhite28/warstat1.htm>; Rudolph Rummel, 20th Century Democide, <http://www.hawaii.edu/powerkills/20TH.HTM>, both accessed July 23, 2007.

[2] Jasper Becker, *Hungry Ghosts: Mao's Secret Famine* (New York: Holt, 1998).

[3] Valerie M. Hudson and Andrea M. Den Boer, *Bare Branches: The Security Implications of Asia's Surplus Male Population* (Cambridge, Mass.: MIT Press, 2004).

[4] Medium variant, Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2006 Revision and World Urbanization Prospects: The 2005 Revision*, <http://esa.un.org/unpp>, accessed July 25, 2007 (assumes normal overall sex ratio of 98).

[5] "Estimated War Dead, World War II," <http://warchronicle.com/numbers/WWII/deaths.htm>.

[6] Christopher Guilмото, "Sex Ratio Imbalance in Asia: Trends, Consequences, and Policy Responses," United Nations Population Fund, 2007, http://www.unfpa.org/gender/docs/studies/summaries/regional_analysis.pdf.

strongest evolutionary driver of human social arrangements.¹⁰ Concurring with these insights from psychological and evolutionary research, French philosopher Sylviane Agacinski reflects, “It is always the difference of the sexes that serves as a model for all other differences, and the male/female hierarchy that is taken as a metaphor for all inter-ethnic hierarchies.”¹¹ Societal-based differences in gender status beliefs, reflected in practices, customs, and law, have important political consequences, including consequences for nation-state security policy and conflict and cooperation within and between nation-states.

After outlining our theoretical framework, we survey the existing empirical literature linking the situation of women to the situation of states. We then present an initial empirical investigation of the framework’s propositions.

The “Women and Peace” Thesis

To establish the theoretical linkage between the security of women and the security of states, we synthesize insights from several disciplines, including evolutionary biology and psychology, which provide an account of ultimate causes of human behavior in terms of natural selection; political sociology, which offers an account of the social diffusion of both naturally selected and culturally selected traits; and psychology, which provides an account of more proximate causal mechanisms of diffusion in terms of cultural selection through social learning.

EVOLUTIONARY BIOLOGY AND PSYCHOLOGY

Evolutionary biology and psychology have been underutilized by social scientists, leading Bradley Thayer to comment that “this leads to an artificially limited social science” using assumptions about human behavior that may be “problematic, or fundamentally flawed.”¹² Evolutionary theory provides explanations in terms of ultimate cause, not proximate cause, framing the context within which individual creatures strive to increase their fitness (i.e., survival and reproductive success). Differential fitness levels, then, drive natural selection: if one survives to reproduce (or if one can facilitate the reproduction of close kin, a concept termed “inclusive fitness”), natural selection will move in

10. Joseph Loproato, *Human Nature and Biocultural Evolution* (Boston: Allen and Unwin, 1984); and Richard Wrangham and Dale Peterson, *Demonic Males: Apes and the Origins of Human Violence* (New York: Mariner, 1996).

11. Sylviane Agacinski, *Parity of the Sexes* (New York: Columbia University Press, 2001), p. 14.

12. Bradley Thayer, *Darwin and International Relations: On the Evolutionary Origins of War and Ethnic Conflict* (Lexington: University Press of Kentucky, 2004), pp. 8–9.

the direction of one's genotype. Changes in rates of survival and reproduction among individuals and kin groups will eventually change the genotype of the overall population in this way.

Evolutionary theory suffers from two common misconceptions. The first is that evolutionary predispositions are intractable. No evolutionary theorist believes this. Richard Dawkins explains, "It is perfectly possible to hold that genes exert a statistical influence on human behavior while at the same time believing that this influence can be modified, overridden, or reversed by other influences."¹³ The second misconception is that evolutionary theory posits static and essential characteristics for males and females. This has been debunked as well. In debunking this myth, Theodore Kemper notes, "Across the spectrum of the social sciences, the results show that females are not essentially pacific, retiring, unaggressive, lacking in motives and psychological need for power and dominance. While successful ideological socialization may persuade many women that this is true of themselves, it is not biologically true."¹⁴ Laying these two misconceptions aside, we turn to the insights that evolutionary theory can provide into the relationship between the physical security of women and general traits and behaviors of human collectives, including nation-states.

According to evolutionary theory, human social structures are profoundly—even predominantly—shaped by natural selection for reproductive fitness. Richard Alexander writes that culture can be seen as a "gigantic metaphorical extension of the reproductive system. . . . [There is] a reasonably close correspondence between the structure of culture and its usefulness to individuals in inclusive-fitness-maximizing."¹⁵

Sex differences across animal species produce a dazzling diversity of male-female interaction. Richard Wrangham and Dale Peterson note, however, that out of "4,000 mammals and 10 millions or more other animal species," only two species (humans and chimpanzees) live in "patrilineal, male-bonded communities wherein females routinely reduce risks of inbreeding by moving to neighboring groups [to mate within these communities]. . . . with [these communities having] a system of intense, male-initiated territorial aggression, including lethal raiding into neighboring communities in search of vulnerable

13. Richard Dawkins, *The Selfish Gene* (Oxford: Oxford University Press, 1989), p. 331.

14. Theodore D. Kemper, *Social Structure and Testosterone: Explorations of the Socio-Bio-Social Chain* (New Brunswick, N.J.: Rutgers University Press, 1990), p. 138.

15. Richard D. Alexander, "Evolution and Culture," in Napoleon A. Chagnon and William Irons, eds., *Evolutionary Biology and Human Social Behavior: An Anthropological Perspective* (North Scituate, Mass.: Duxbury, 1979), pp. 59–78, at p. 77.

enemies to attack and kill. . . . The system of communities defended by related men is a human universal that crosses space and time.”¹⁶ While noting this universality in human systems, they also note that “we quickly discover how odd that system really is, [making] humans appear as members of a funny little group that chose a strange little path.”¹⁷

Evolutionary theorists explain this system in terms of male reproductive advantage. Simply put, “Better fighters tend to have more babies. That’s the simple, stupid, selfish logic of sexual selection.”¹⁸ Although not as sexually dimorphic as other primates, human males have upper-body strength superior to females, indicating that sexual selection in humans was tied to fighting in the human evolutionary environment. An individual male’s domination of females is dependent on his domination of other males; therefore, male capability for domination of both sexes is selected over time.

Human groups formed because of the increased protection they provided against predators. Although we imagine the first predators of concern were large carnivorous animals, the most important threat to males in terms of reproductive fitness were not only out-group males but also in-group males. Evolutionary theorists posit that male dominance hierarchies were naturally selected among humans to maximize protection against out-group males and minimize conflict between in-group males. Dominance hierarchies are a system wherein a subgroup of superordinate (or “alpha”) males dominates subordinate males, and alpha males generally control sexual access to females. In contemporary terms, male dominance hierarchies are the foundation of patriarchy. Wrangham and Peterson write, “Patriarchy is worldwide and history-wide, and its origins are detectable in the social lives of chimpanzees. It serves the reproductive purposes of the men who maintain the system. Patriarchy comes from biology in the sense that it emerges from men’s temperaments, out of their evolutionarily derived efforts to control women and at the same time have solidarity with fellow men in competition against outsiders. . . . Patriarchy has its ultimate origins in male violence.”¹⁹

In the first place, this violence is directed against women. Unfortunately, given sexual dimorphism in humans, coercion is an effective male mating strategy. Women accede to dominance hierarchies because of “the one terrible threat that never goes away”²⁰—the need of females to have protection from

16. Wrangham and Peterson, *Demonic Males*, pp. 24–25.

17. *Ibid.*, p. 231.

18. *Ibid.*, p. 173.

19. *Ibid.*, p. 125.

20. *Ibid.*, p. 159.

killer males, who will injure or kill not only females but also the children that females guard. The battering that women suffer from the males they live with is the price paid for such protection and occurs “in species where females have few allies, or where males have bonds with each other.”²¹ Indeed, among humans, sex differences trump the blood ties associated with natural selection for inclusive fitness. As anthropologist Barbara Miller notes, “Human gender hierarchies are one of the most persistent, pervasive, and pernicious forms of inequality in the world. Gender is used as the basis for systems of discrimination which can, even within the same household, provide that those designated ‘male’ receive more food and live longer, while those designated ‘female’ receive less food to the point that their survival is drastically impaired.”²² Those with physical power also dominate political power, so that when law developed in human societies, men created legal systems that, generally speaking, favored male reproductive success and interests—with adultery as a crime for women but not for men; with female infanticide, male-on-female domestic violence, and marital rape not recognized as crimes; with polygamy legal but polyandry proscribed; with divorce easy for men and almost impossible for women.

The development of male dominance hierarchies may also alter female evolution, and females apparently began to make adaptive choices that serve to perpetuate this system. Primary among these female choices that entrench violent patriarchy are a general preference for the most dominant men (who are able to provide superior protection, though may also offer increased domestic violence and control), and female-female competition for these males, which reduces the opportunity to form countervailing female alliances to offset male violence against women. Male dominance hierarchies also appear to change women emotionally, and as a result, change them endocrinologically. The experience of chronic, intimate oppression, exploitation, and violence shapes women hormonally, molding them into creatures more easily persuaded by coercion to yield and submit—predispositions that Kemper asserts may be inherited by their daughters through placental transfer of specific ratios of hormones in utero.²³

The entrenchment of patriarchy also leads to aggression against out-groups. Males in dominance hierarchies quickly discover that resources may be gained

21. *Ibid.*, p. 146.

22. Barbara Diane Miller, “The Anthropology of Sex and Gender Hierarchies,” in Miller, ed., *Sex and Gender Hierarchies* (Cambridge: Cambridge University Press, 1993), pp. 3–31, at p. 22.

23. Kemper, *Social Structure and Testosterone*.

with little cost and risk through coalitional violence; and these resources include women. The form of exogamy practiced among humans and chimpanzees (where daughters leave the group to mate) means that males of the group are kin. As a result, blood ties provide the necessary trust to engage in such violence as male-bonded gangs. Coercion of out-groups becomes relatively inexpensive in this context, with potentially great payoff. Dominant males in coalition with male kin are able to adopt a parasitological lifestyle based on physical force: with very little effort, but with a willingness to harm, kill, and enslave others, they can be provided with every resource that natural selection predisposes them to desire: food, women, territory, resources, status, political power, pride. As Kemper puts it, "The dominant are not dependent for their sense of well-being on the voluntary responses of others. The dominant simply take what they want."²⁴

Contemporary human societies do not inhabit the evolutionary landscape of hundreds of thousands of years ago. We would be remiss, however, if we did not note how primal male coalitional violence and resulting patriarchy are, and what influence these forces still have today. Thayer notes that humans are only about 400 generations removed from that landscape, and only eight generations have passed since the industrial revolution:²⁵ the past still bears heavily on our behavioral proclivities. The men among us have certain behavioral tendencies induced by the "strange path" our ancestors took: Wrangham and Peterson argue, "Men have a vastly long history of violence [which] implies that they have been temperamentally shaped to use violence effectively, and that they will therefore find it hard to stop. It is startling, perhaps, to recognize the absurdity of the system: one that works to benefit our genes rather than our conscious selves, and that inadvertently jeopardizes the fate of all our descendants."²⁶ In other words, the foreign policy of human groups, including modern states, is more dangerous because of the human male evolutionary legacy: "Unfortunately, there appears something special about foreign policy in the hands of males. Among humans and chimpanzees at least, male coalitional groups often go beyond defense [typical of monkey matriarchies] to include unprovoked aggression, which suggests that our own intercommunity conflicts might be less terrible if they were conducted on behalf of women's rather than men's interests. Primate communities organized around male

24. *Ibid.*, p. 109.

25. Thayer, *Darwin and International Relations*.

26. Wrangham and Peterson, *Demonic Males*, p. 249.

interests naturally tend to follow male strategies and, thanks to sexual selection, tend to seek power with an almost unbounded enthusiasm."²⁷

Thayer concurs, noting that "war evolved in humans because it is an effective way to gain and defend resources."²⁸ Moreover, because the evolutionary environment produced egoism, domination, and the in-group/out-group distinction, "these specific traits are sufficient to explain why state leaders will maximize their power over others and their environment, even if they must hurt others or risk injury to themselves."²⁹ Indeed, the title of Thayer's book speaks to the point: *Darwin and International Relations*. He finds ultimate cause for such observable modern state-level phenomena as offensive realism and ethnic conflict in natural selection.³⁰

Patriarchy and its attendant violence among human collectives are not inevitable, however; and this is not simply a politically correct view—it is the view of evolutionary theorists. As Wrangham and Peterson note, "Patriarchy is not inevitable. . . . Patriarchy emerged not as a direct mapping of genes onto behavior, but out of the particular strategies that men [and women] invent for achieving their emotional goals. And the strategies are highly flexible, as every different culture shows."³¹ We offer three reasons why male dominance is not inevitable in human society. First, other primate groups, such as bonobos, avoided it by developing strong female alliances—male dominance is not order-wide among primates. Second, cultural selection modifies natural selection through engineering of social structures and moral sanctions. Examples include how socially imposed monogamy, posited as leading to the depersonalization of power through democracy and capitalism, helped to open the way for improved status for women.³² Third, cultural selection for improved female status in many human societies also changes females in both emotional and endocrinological ways, and these changes have a good chance of being passed to their female offspring, making them less likely to submit and yield to male coercive violence.³³ This in turn may serve to make female alliances

27. *Ibid.*, p. 233.

28. Thayer, *Darwin and International Relations*, p. 13.

29. *Ibid.*, p. 76.

30. See also Malcolm Potts and Thomas Hayden, *Sex and War: How Biology Explains Warfare and Terrorism and Offers a Path to a Safer World* (Dallas, Tex.: BenBella, 2008).

31. Wrangham and Peterson, *Demonic Males*, p. 125.

32. Richard D. Alexander, "Evolution, Culture, and Human Behavior: Some General Considerations," in Alexander and Donald W. Tinkle, eds., *Natural Selection and Social Behavior: Recent Research and New Theory* (New York: Chiron, 1981), pp. 509–520.

33. Kemper, *Social Structure and Testosterone*.

against males more likely within such societies, providing an effective countervailing force to violent patriarchy. For example, Clarice Auluck-Wilson reports how one female village organization in India, the Mahila Mandal, was able to reduce domestic violence by having all the women run as one to the home of any woman who was being beaten by her husband and protecting her from further abuse.³⁴ The Mahila Mandal was also able to force domestic abusers to temporarily leave the home for a cooling-off period, rather than the victim having to leave her home. By such collective action, levels of domestic violence against women decreased.

POLITICAL PSYCHOLOGY AND SOCIAL DIFFUSION THEORY

Theories of political sociology underscore the view of evolutionary theorists that the legacy of violent patriarchy comes to permeate all levels of social intercourse. The primal character of violent patriarchy ensures that it becomes a template for broad classes of social behavior—specifically, those that concern social difference. Because human males, generally speaking, code the primal difference between male and female as a hierarchy in which the naturally selected goal is control and domination of the subordinate female, all those coded as “different” will be treated in accordance with that template of control and domination: out-group males, out-group females, and even in certain circumstances in-group males. Thus, the ultimate causes posited by evolutionary theory are supplemented by more proximate causal mechanisms in the diffusion of these templates of domination and control.

Theories of social diffusion are not alien to security studies. Scholars in the field have investigated the relationship between the spread of new forms of social relations, such as democracy, and resulting observable differences in state security and behavior.³⁵ Interestingly, several theorists believe that the rise of democracy is rooted in the amelioration of violent patriarchy. For example, some have posited that the social imposition of monogamy and later marriage for women (leading to a lessening of gender inequality) were necessary, though not sufficient, conditions for the rise of democracy and capitalism in the West.³⁶ Breaking key elements of male dominance hierarchies—polygamy,

34. Clarice A. Auluck-Wilson, “When All the Women Lift,” *Signs: Journal of Women in Culture and Society*, Vol. 20, No. 4 (Summer 1995), pp. 1029–1038.

35. Maoz and Russett, “Normative and Structural Causes of Democratic Peace”; and Bruce Russett, *Controlling the Sword: The Democratic Governance of National Security* (Cambridge, Mass.: Harvard University Press, 1990).

36. Alexander, “Evolution, Culture, and Human Behavior”; Mary S. Hartman, *The Household and*

patrilocality, early to mid-teen marriage for females—may have been the first, critical steps to eventually breaking the political power of such hierarchies. Although in the initial stages the rise of democracy did not facilitate women's political power, without an adjustment in the fundamental character of male-female relations, these scholars assert that democracy may never have been a historical possibility for humans. And as norms of democracy arose, the stage was set for women to achieve political power. If these theorists are correct, then levels of violence against women should be more predictive of state security and peacefulness than levels of procedural democracy. In other words, in states where democracy arose from within through the amelioration of gender inequality, we should find greater state security; but where democracy was imposed or veneered over systems where male-female relations did not undergo fundamental transformation, we should not find as significant differences in state security and peacefulness.

Just as a proclivity toward international peace in democratic societies is based, in part, "on tolerance and a respect for the rights of opponents,"³⁷ so scholars might also contemplate that norms of gender-based violence have an inflammatory impact on domestic and international behavior. For example, studies have shown that if domestic violence is normal in family conflict resolution in a society, then that society is more likely to rely on violent conflict resolution and to be involved in militarism and war than are societies with lower levels of family violence.³⁸ A vicious circle may result, where such state violence may in turn lead to higher levels of gender violence.³⁹ Indeed, lower

the Making of History: A Subversive View of the Western Past (Cambridge: Cambridge University Press, 2004); and Jack P. Greene and J.R. Pole, eds., *Colonial British America: Essays in the New History of the Early Modern Era* (Baltimore, Md.: Johns Hopkins University Press, 1983).

37. Gregory A. Raymond, "International Norms: Normative Orders and Peace," in John A. Vasquez, ed., *What Do We Know about War?* (New York: Rowman and Littlefield, 2000), pp. 281–297, at p. 290.

38. Gerald M. Erchak, "Family Violence," in Carol R. Ember and Melvin Ember, eds., *Research Frontiers in Anthropology* (Englewood Cliffs, N.J.: Prentice-Hall, 1994); Gerald M. Erchak and Richard Rosenfeld, "Societal Isolation, Violent Norms, and Gender Relations: A Reexamination and Extension of Levinson's Model of Wife Beating," *Cross-Cultural Research*, Vol. 28, No. 2 (May 1994), pp. 111–133; David Levinson, *Family Violence in Cross-Cultural Perspective* (Newbury Park, Calif.: Sage, 1989); and Cynthia Cockburn, "The Gendered Dynamics of Armed Conflict and Political Violence," in Caroline O.N. Moser and Fiona C. Clark, eds., *Victims, Perpetrators, or Actors? Gender, Armed Conflict, and Political Violence* (New York: Zed, 2001), pp. 13–29.

39. Jean Bethke Elshtain, *Women and War* (New York: Basic Books, 1987); Betty A. Reardon, *Sexism and the War System* (New York: Teachers College Press, 1985); Sara Ruddick, "Pacifying the Forces: Drafting Women in the Interests of Peace," *Signs*, Vol. 8, No. 3 (Spring 1983), pp. 471–489; and Susan Brownmiller, *Against Our Will: Men, Women, and Rape* (New York: Simon and Schuster, 1975).

levels of gender inequality hinder the ability of societies to mobilize for aggression through demoralizing women.⁴⁰

Johan Galtung, a political scientist specializing in political sociology, offers two concepts that help explain how a generalized ideological justification for violence is formed and diffuses throughout society: structural violence and cultural violence.⁴¹ Galtung's conceptualization of structural violence paints a picture of pervasive and systematic exploitation that makes open violence in the public sphere unnecessary—"The amateur who wants to dominate uses guns, the professional uses social structure."⁴² According to Galtung, structural violence has at least four manifestations: exploitation based on a division of labor wherein benefits are asymmetrically distributed; control by the exploiters over the consciousness of the exploited, resulting in the acquiescence of the oppressed; fragmentation, meaning that the exploited are separated from each other; and marginalization, with the exploiters as a privileged class with their own rules and form of interaction.⁴³

The concordance between this list and the means by which gender inequality is typically maintained in human societies is clear. Gender roles lead to highly differential possibilities for personal security, development, and prosperity, even in today's world. An example of this kind of exploitation occurs when women "naturally" receive less pay than men for equal work, or when domestic violence is considered "normal." The second component, manipulation of consciousness to ensure acquiescence, is maintained through socialization, gender stereotyping, and a constant threat of domestic violence—all of which insidiously identify women as inferior. The perpetrators of female infanticide, for example, are virtually all female. The third component, fragmentation, is easily effected from women's circumstances of patrilocality and greater family responsibilities (and in some cases, the practice of physical *pardah*), thus minimizing social access that could otherwise be used to build networks with other women. And finally, marginalization serves to clearly distinguish men and women, with no doubt as to the relative status of each sex.

Galtung posits that structural violence arises from cultural violence, that is,

40. Mary Caprioli, "Primed for Violence: The Role of Gender Inequality in Predicting Internal Conflict," *International Studies Quarterly*, Vol. 49, No. 2 (June 2005), pp. 161–178.

41. Johan Galtung, *Essays in Peace Research*, Vol. 1: *Peace: Research, Education, Action* (Bucharest: CIPEXIM, 1990); and Johan Galtung, "Cultural Violence," *Journal of Peace Research*, Vol. 27, No. 3 (August 1990), pp. 291–305.

42. Galtung, *Peace: Research, Education, Action*, p. 80.

43. *Ibid.*, pp. 264–265.

the day-to-day use of overt or implicit force to obtain one's ends in social relations. Thus, while structural violence may obviate the need for open violence in the public sphere, it is based on open or implicit violence in the private sphere of the home. Norms of cultural violence diffuse within religion, ideology, language, and art, among other aspects of culture. "Cultural violence makes direct and structural violence look, even feel, right—or at least not wrong," writes Galtung.⁴⁴ Violent patriarchy is the primary basis of cultural violence in human collectives: although women have become active agents with notable success in the struggle for equality in many states, violence remains an enduring component of relations between men and women in the private sphere the world over, providing a natural wellspring for social diffusion.⁴⁵

Gendered hierarchies also help explain the violence associated with nationalism, for the hierarchized difference between men and women that is at the root of structural inequality and violence diffuses to become an integral aspect of nationalism. Evolutionary theory tells us that clan or national identity is almost exclusively male-defined, for in the evolutionary landscape, it was males who defined who was a member of the in-group, and who belonged to out-groups, based on male reproductive concerns. "Gender relations are a crucial, not peripheral, dimension of the dynamics of group identities and intergroup conflicts," writes Spike Peterson,⁴⁶ thus helping to explain the inherent nationalist antipathy toward feminist goals. Given this linkage between violent patriarchy and nationalism, any reforms of the cultural distribution of power between men and women will be viewed as a threat to nationalist efforts to protect or unify the community.⁴⁷ Legitimized by gendered structural and cultural violence, patriarchal nationalism provides justification for advancing state interests through the use of force. In that light, we would expect that nei-

44. Galtung, "Cultural Violence," p. 291.

45. Mary Caprioli, Valerie M. Hudson, Rose McDermott, Bonnie Ballif-Spanvill, Chad F. Emmett, and S. Matthew Stearmer, "The WomanStats Project Database: Advancing an Empirical Research Agenda," *Journal of Peace Research* (forthcoming).

46. V. Spike Peterson, "Gendered Nationalism: Reproducing 'Us' versus 'Them,'" in Lois Ann Lorentzen and Jennifer Turpin, eds., *The Women and War Reader* (New York: New York University Press, 1998), pp. 41–49, at pp. 42–43.

47. J. Ann Tickner, *Gender in International Relations: Feminist Perspectives on Achieving Global Security* (New York: Columbia University Press, 1993); J. Ann Tickner, *Gendering World Politics* (New York: Columbia University Press, 2001); Hanna Papanek, "To Each Less Than She Needs, From Each More Than She Can Do: Allocations, Entitlements, and Value," in Irene Tinker, ed., *Persistent Inequalities: Women and World Development* (New York: Oxford University Press, 1994), pp. 162–181; Mark Tessler and Ina Warriner, "Gender, Feminism, and Attitudes toward International Conflict: Exploring Relationships with Survey Data from the Middle East," *World Politics*, Vol. 49, No. 2 (January 1997), pp. 250–281; and Caprioli, "Primed for Violence."

ther a meaningful decrease in societal violence nor a sustainable peace among nations is possible in human society without a decrease in gender inequality.⁴⁸ But is that possible?

SOCIAL LEARNING THEORY FROM PSYCHOLOGY

As we have shown, even evolutionary theorists assert that violent patriarchy is not inevitable in human society. Psychologists strongly agree, and their findings are pertinent here. First, social learning psychologists argue that biology does increase the likelihood that a child will engage in aggressive or violent behavior, but does not guarantee it. For example, twin and adoption studies find that genes make a small contribution to various forms of antisocial behavior compared to environmental factors. For example, while finding that having a biological parent who was antisocial increased the risk for antisocial behavior to be seen in an adopted child, these same studies also demonstrated that having a disrupted home environment contributed more significantly to the risk for a child to engage in antisocial behavior.⁴⁹

Social learning psychologists elaborate that violence is heavily influenced by a sequence of long-term training of the individual: children who learn aggressive behaviors very early develop serious deficits in prosocial skills.⁵⁰ Violent individuals are inadvertently trained by siblings and parents through their reinforcement of coercive behavior with little positive reinforcement for prosocial behavior, and these parenting practices are handed down from one generation to the next. In concordance with evolutionary theory, psychologists believe that the key to training an individual to become violent, both within the family and in peer groups, is the functionality of violence. Violence and coercion must “work” for these to be perpetuated, or in the parlance of evolutionary theory, “selected for.” The reactions of parents, siblings, and peers teach individuals to select actions that work and to ignore those that do not.

48. Swanee Hunt and Cristina Posa, “Women Waging Peace,” *Foreign Policy*, No. 124 (May/June 2001), pp. 38–47; and Tickner, *Gender in International Relations*.

49. Michael Bohman, “Predisposition to Criminality: Swedish Adoption Studies in Retrospect,” in Gregory R. Bock and Jamie A. Goode, eds., *Genetics of Criminal and Antisocial Behavior* (West Sussex, U.K.: John Wiley, 1996), pp. 99–114; Remi J. Cadoret, Leslie D. Leve, and Eric Devor, “Genetics of Aggressive and Violent Behavior,” *Psychiatric Clinics of North America*, Vol. 20, No. 2 (June 1997), pp. 301–322; Remi J. Cadoret, Colleen A. Cain, and Raymond R. Crowe, “Evidence for Gene-Environment Interaction in the Development of Adolescent Antisocial Behavior,” *Behavior Genetics*, Vol. 13, No. 3 (May 1983), pp. 301–310; and Xiaojia Ge, Rand D. Conger, Remi J. Cadoret, Jenae M. Neiderhiser, William Yates, Edward Troughton, and Mark Stewart, “The Developmental Interface between Nature and Nurture: A Mutual Influence Model of Child Antisocial Behavior and Parent Behaviors,” *Developmental Psychology*, Vol. 32, No. 4 (July 1996), pp. 574–589.

50. Gerald R. Patterson, “A Comparison of Models for Interstate War and for Individual Violence,” *Perspectives on Psychological Science*, Vol. 3, No. 3 (May 2008), pp. 203–223.

True to evolutionary theory, individuals repeat responses that are functional and drop those that are nonfunctional: for example, Thayer notes, "Culture allows warfare to be either suppressed or exacerbated. . . . It is difficult to overstate the significance of educational systems, popular culture, and the media, among many [proximate] causal mechanisms."⁵¹ It is the environment that determines the nature of the fittest response.⁵² Here we glimpse the proximate causes of cultural selection in the very act.

Indeed, findings in psychology demonstrate that very young boys do not display more violence toward girls than girls display toward boys. Although many studies have concluded that among pre-school-age children, boys are more physically aggressive than girls,⁵³ when the stimulus of gender is removed,⁵⁴ there is no difference between the amount of aggression boys display against girls and girls display against boys.⁵⁵ Rather, three factors are likely to play prominent roles in training individuals to become more violent against women: modeling, immediate reinforcement, and male-bonded groups.

MODELING. The first adults whom children observe regularly interacting are their parents. In homes where interparental violence occurs, children who witness such violence are susceptible to adopting the aggressive behavior patterns they observe.⁵⁶ Such child witnesses of violence between their parents are more likely to be violent with their peers and with their partners in future relationships. Those children found to be most violent are sons of abusers fol-

51. Thayer, *Darwin and International Relations*, pp. 151–152.

52. Patterson, "A Comparison of Models for Interstate War and Individual Violence."

53. Raymond H. Baillargeon, Mark Zoccolillo, Kate Keenan, Sylvana Côté, Daniel Pérusse, Hong-Xing Wu, Michel Boivin, and Richard E. Tremblay, "Gender Differences in Physical Aggression: A Prospective Population-Based Survey of Children before and after Two Years of Age," *Developmental Psychology*, Vol. 43, No. 1 (January 2007), pp. 13–26; and Jamie M. Ostrov and Caroline F. Keating, "Gender Differences in Preschool Aggression during Free Play and Structured Interaction: An Observational Study," *Social Development*, Vol. 13, No. 2 (April 2004), pp. 255–277.

54. Janet S. Hyde, "New Direction in the Study of Gender Similarities and Differences," *Current Directions in Psychological Science*, Vol. 16, No. 5 (October 2007), pp. 259–263.

55. Bonnie Ballif-Spanvill, Claudia Clayton, Rebecca Nichols, and Rachel Kramer, "Dyad Differences in the Violent and Prosocial Behavior of Same- and Mixed-Set Pairs of Three-Year-Olds," manuscript in preparation.

56. E. Mark Cummings, Marcie C. Goeke-Morey, and Lauren M. Papp, "Everyday Marital Conflict and Child Aggression," *Journal of Abnormal Child Psychology*, Vol. 32 No. 2 (April 2004), pp. 191–202; Jeffrey L. Edleson, "Children's Witnessing of Adult Domestic Violence," *Journal of Interpersonal Violence*, Vol. 14, No. 8 (August 1999), pp. 839–870; Sandra A. Graham-Bermann, "The Impact of Woman Abuse on Children's Social Development: Research and Theoretical Perspectives," in George W. Holden, Robert Geffner, and Ernest N. Jouriles, eds., *Children Exposed to Marital Violence: Theory, Research, and Applied Issues* (Washington, D.C.: American Psychological Association, 1998), pp. 21–54; and Gayla Margolin and Elana B. Gordis, "The Effects of Family and Community Violence on Children," *Annual Review of Psychology*, Vol. 51 (February 2000), pp. 445–479.

lowing in their fathers' footsteps by becoming violent in the same types of conflicts that trigger their fathers' violence.⁵⁷ Sons' imitation of their fathers' aggression toward their mothers may be the first step in perpetuating patterns of violence against women across generations.

IMMEDIATE REINFORCEMENT. Violence committed against women in the home is almost always related to fulfilling the emotional needs or physical needs of men.⁵⁸ Such violence provides almost immediate gratification. The selfish satisfaction inherent in male domination is often justified by cultural and religious traditions that are themselves results of social diffusion, and that in turn offer additional social rewards for the perpetrator's aggression. Although individual differences clearly exist,⁵⁹ male children who imitate the violence they observe against women in the home are likely to perpetuate it as long as it gets them what they want. Unless aggression toward women becomes less rewarding to men, and prosocial skills become more functional within families, communities, and societies, violence against women will continue.

MALE-BONDED GROUPS. In concert with findings of evolutionary biology concerning male coalitions, studies of children have repeatedly found evidence that boys prefer to play with boys.⁶⁰ Bonnie Ballif-Spanvill and her co-authors found that when three-year-old boys play with other three-year-old boys, the amount of prosocial behavior between them significantly increases.⁶¹ Such positive interactions were not found among girls or in mixed-gender dyads. This male camaraderie may not only be the basis for the same-gender preferences observed in children at play, but everyday anecdotal observations of athletic teams and male-only clubs as well. Same-sex groupings of men may

57. Bonnie Ballif-Spanvill, Claudia J. Clayton, and Suzanne B. Hendrix, "Witness and Nonwitness Children's Violent and Peaceful Behavior in Different Types of Simulated Conflict with Peers," *American Journal of Orthopsychiatry*, Vol. 77, No. 2 (April 2007), pp. 206–215.

58. Robert F. Bornstein, "The Complex Relationship between Dependency and Domestic Violence: Converging Psychological Factors and Social Forces," *American Psychologist*, Vol. 36, No. 6 (September 2006), pp. 595–606.

59. Bonnie Ballif-Spanvill, Claudia J. Clayton, and Suzanne B. Hendrix, "Gender, Types of Conflict, and Individual Differences in the Use of Violent and Peaceful Strategies among Children Who Have and Have Not Witnessed Interparental Violence," *American Journal of Orthopsychiatry*, Vol. 73, No. 2 (April 2003), pp. 141–153.

60. Richard A. Fabes, Carol L. Martin, and Laura D. Hanish, "Young Children's Play Qualities in the Same-, Other-, and Mixed-Sex Peer Groups," *Child Development*, Vol. 74, No. 3 (May 2003), pp. 921–932; and Robert L. Munroe and A. Kimball Romney, "Gender and Age Differences in Same-Sex Aggregation and Social Behaviors: A Four-Culture Study," *Journal of Cross-Cultural Psychology*, Vol. 37, No. 1 (January 2006), pp. 3–19.

61. Ballif-Spanvill et al., "Dyad Differences in the Violent and Prosocial Behavior of Same- and Mixed-Set Pairs of Three-Year-Olds."

also accentuate their views of women as different, a view reinforced when men do not feel the positive interactions with women they experience when they are in the presence of other men. These dynamics may also be interpreted by some men as evidence of the inferiority of women, and justification for objectifying and dehumanizing them.

Female children or women do not appear to have comparable positive same-sex compatibility. This finding, coupled with the fact that in most societies women are structurally organized in patrilocal families under the direction of men, could explain why even when women associate with other women, their allegiance is primarily to the male heads of their households. As previously discussed, this may also be a tragic by-product of human evolution as it pertains to female choice.

Extrapolating from the above findings, it is logical to suggest that young male children who see that violence against women rewards their fathers are likely to perpetuate violence in their own relationships with women, and perhaps even generalize their violent responses to all women. Couple these acquired behaviors in boys with the findings of camaraderie among groups of boys, and the foundation for emerging groups of men treating women poorly begins to take shape. As aggressive boys gravitate toward each other, they acquire more social and political power. The group identity of such male collectives is often strengthened by various initiations and rituals often dehumanizing nonmembers and enhancing willingness to use violence against them.⁶² Furthermore, these characteristic group behaviors are used to train new recruits to carry on in the dynamics of the group across generations.

In cultures where violence against women is allowed to persist, individuals (particularly male individuals) are committing continual, possibly daily, acts of aggression and violence. Extrapolating from Gerald Patterson's model, the relative rate of reinforcement is a significant predictor for the relative rate of aggressive behavior, and the rate of reinforcement for violence against women is extremely high, resulting in overlearned violent acts that become automatic.⁶³ Furthermore, Patterson states that boys who engage in high frequencies of antisocial behavior are at a significantly greater risk to commit violent acts within their communities. This strongly suggests that violence at different levels of analysis are connected, in that states that allow violence

62. Claudia J. Clayton, Sally H. Barlow, and Bonnie Ballif-Spanvill, "Principles of Group Violence with a Focus on Terrorism," in Harold V. Hall and Leighton C. Whitaker, eds., *Collective Violence: Effective Strategies for Assessing and Interviewing in Fatal Group and Institutional Aggression* (Boca Raton, Fla.: CRC Press, 1999), pp. 277–311.

63. Patterson, "A Comparison of Models for Interstate War and for Individual Violence."

against women to persist are allowing men—that half of society that holds both physical and political power—to engage in frequent antisocial acts, perhaps even on a daily basis. This increases the likelihood that they will experience low barriers to engaging in violence on an even larger scale, up to and including intrasocietal and interstate conflict. Societal expectations of benefits from violence at every level of analysis will almost certainly be higher if men—who are dominant in political power in virtually every human society—have received many rewards from committing high frequencies of aggressive acts toward women.

The special contribution of psychology to the women and peace thesis is the identification of the discrete proximate causes that can be manipulated to counteract and even undermine violent patriarchy. Very young boys are not demonstrably prone to aggression against girls, and it takes active modeling, reinforcement, and rewarding of gendered violence to make it appear functional to boys. If it is not modeled, if it is not reinforced, if it is actively punished, its incidence can be severely limited. These are proximate causes that humans can consciously control. If gendered violence can be undermined at its taproot—domestic violence within the home—the effects, as we have shown with violent patriarchy, should cascade outward to affect many social phenomena, including state security and behavior. Furthermore, if institutions that depersonalize political power can be created, thus severing political power's connection to physical power in which men have an advantage, then legal systems and political institutions that allow females to live free of relational violence from males, and therefore free to form countervailing female alliances to prevent male violence and dominance, will also have a profound effect on state security and behavior. To the extent that the security of women is a societal priority, the security and peacefulness of the state will be significantly enhanced. State security rests, in the first place, on the security of women.

Women and the State: Existing Empirical Findings

There is a substantial literature linking the treatment of women to important state-level variables. Scholarly attention to the link between women and the state arguably began in the field of development. As early as 1970, Ester Boserup argued that omission of gender aspects of development led to project failure.⁶⁴ Since her pioneering work, we have seen waves of successive research concerning the role of women in economic development and quality of

64. Ester Boserup, *Women's Role in Economic Development* (London: Allen and Unwin, 1970).

life.⁶⁵ The empirical literature in this field has contributed to the establishment of strong cross-national linkages between gender variables and economic variables, including gross domestic product (GDP) per capita, global competitiveness ranking, and economic growth rates.⁶⁶ State-level health variables, especially child survival/mortality and malnutrition, are also significantly correlated to female status and education.⁶⁷

Political phenomena at the state level have also been related to the situation of women, most specifically levels of corruption. For example, a study of eighty countries revealed a negative correlation between indices of corruption and indices of women's social and economic rights.⁶⁸ Because decreases in political corruption increase investment and growth, gender equity additionally influences economic growth.⁶⁹ According to an Inter-Parliamentary Union survey of 187 women holding public office in sixty-five countries, women's presence in politics increases the amount of attention given to social welfare, legal

65. Eva M. Rathgeber, "WID, WAD, GAD: Trends in Research and Practice," *Journal of Developing Areas*, Vol. 24, No. 4 (1990), pp. 489–502; Martha Chen, "A Matter of Survival: Women's Right to Employment in India and Bangladesh," in Martha C. Nussbaum and Jonathan Glover, eds., *Women, Culture, and Development: A Study of Human Capabilities* (Oxford: Clarendon, 1995), pp. 37–60; Jodi L. Jacobson, *Gender Bias: Roadblock to Sustainable Development* (Washington, D.C.: Worldwatch Institute, 1992); Amartya Sen, "Women's Survival as a Development Problem," *Bulletin of the American Academy of Arts and Sciences*, Vol. 43 (1989), pp. 14–29; and Geeta Chowdery and Sheila Nair, *Power, Postcolonialism, and International Relations: Reading Race, Gender, and Class* (New York: Routledge, 2002).

66. Ricardo Hausmann, Laura D. Tyson, and Saadia Zahidi, *The Global Gender Gap Report, 2007* (Geneva: World Economic Forum, 2007), <http://www.weforum.org/pdf/gendergap/report2007.pdf>; Andrew D. Mason and Elizabeth M. King, "Engendering Development: Through Gender Equality in Rights, Resources, and Voice," World Bank Policy Research Report (Washington, D.C.: World Bank and Oxford University Press, 2001); and John Hoddinott and Lawrence Haddad, "Does Female Income Share Influence Household Expenditure Patterns?" *Oxford Bulletin of Economics and Statistics*, Vol. 57, No. 1 (February 1995), pp. 77–97.

67. Duncan Thomas, "Intra-Household Resource Allocation: An Inferential Approach," *Journal of Human Resources*, Vol. 25, No. 4 (Fall 1990), pp. 635–664; Duncan Thomas, D. Contreras, and Elizabeth Frankenberg, *Child Health and the Distribution of Household Resources at Marriage* (Los Angeles: RAND and University of California, Los Angeles, 1997); Mason and King, "Engendering Development"; Berta Esteve-Volart, "Sex Discrimination and Growth," IMF Working Paper, No. 00/84 (Washington, D.C.: African Department, International Monetary Fund, 2000); Shireen J. Jejeebhoy, *Women's Education, Autonomy, and Reproductive Behavior: Experience from Developing Countries* (Oxford: Clarendon, 1995); T. Paul Schultz, "Investments in the Schooling and Health of Women and Men: Quantities and Returns," *Journal of Human Resources*, Vol. 28, No. 4 (1993), pp. 694–725; Albino Barrera, "The Role of Maternal Schooling and Its Interaction with Public Health Programs in Child Health Production," *Journal of Development Economics*, Vol. 32, No. 1 (January 1990), pp. 69–91; and Lisa C. Smith and Lawrence Haddad, "Overcoming Child Malnutrition in Developing Countries: Past Achievements and Future Choices," 2020 Vision Briefs, No. 64 (Washington, D.C.: International Food Policy Research Institute, February 2000), <http://ifpri.org/2020/BRIEFS/number64.htm>.

68. Daniel Kaufmann, "Challenges in the Next Stage of Corruption," in *New Perspectives in Combating Corruption* (Washington, D.C.: Transparency International and World Bank, 1998).

69. Mason and King, "Engendering Development."

protection, and transparency in government and business. In the same survey, 80 percent of respondents said that women's participation restores trust in government.⁷⁰ All in all, then, the world is beginning to recognize that the status of women often substantially influences important aspects of the states in which they live. This recognition, in turn, has led to innovative policy initiatives to capitalize on these insights.⁷¹

Despite this impressive array of empirical findings, when one turns to questions of women and national security defined in a more traditional sense, questions still remain. Although there are theoretical reasons for believing the security and behavior of a state is linked to the situation and security of its women, does the evidence support this proposition? And what is the form of that linkage? These questions have not been as exhaustively researched as the linkage between the situation of women and the prosperity/health of nations.

There is a strong foundation in the rich theoretical literature of feminist security studies that emphasizes the relationship between women's status and international relations.⁷² In addition to academic endeavors, noteworthy is the formal articulation of the need to include women in peace negotiations as codified in the 2000 UN Security Council Resolution 1325, the 2008 recognition in UN Security Council Resolution 1820 of the need to punish those who commit rape in conflict, and a broader IGO/NGO advocacy program called "Women, Peace, and Security," which has resulted in stronger gender mainstreaming in areas such as UN peacekeeping operations.⁷³

70. Inter-Parliamentary Union, "Politics: Women's Insight" (Geneva: Inter-Parliamentary Union, January 2000), http://www.ipu.org/PDF/publications/womeninsight_en.pdf.

71. Swanee Hunt, "Let Women Rule," *Foreign Affairs*, Vol. 86, No. 3 (May/June 2007), pp. 109–120.

72. Cynthia Enloe, *Bananas, Beaches, and Bases: Making Feminist Sense of International Politics* (Berkeley: University of California Press, 1989, updated 2001); Elshain, *Women and War*; Carol Cohn, "Sex and Death in the Rational World of Defense Intellectuals," *Signs*, Vol. 12, No. 4 (Summer 1987), pp. 687–718; V. Spike Peterson, ed., *Gendered States: Feminist (Re)Visions of International Relations Theory* (Boulder, Colo.: Lynne Rienner, 1992); Peterson, "Gendered Nationalism"; Christine Sylvester, *Feminist Theory and International Relations in a Postmodern Era* (New York: Cambridge University Press, 1994); Christine Sylvester, *Feminist International Relations: An Unfinished Journey* (Cambridge: Cambridge University Press, 2001); Christine Sylvester, "'Progress' as Feminist International Relations," in Frank P. Harvey and Michael Brecher, eds., *Critical Perspectives in International Studies* (Ann Arbor: University of Michigan Press, 2002), pp. 150–167; Tickner, *Gender in International Relations*; Tickner, *Gendering World Politics*; J. Ann Tickner, "Hans Morgenthau's Principles of Political Realism: A Feminist Reformulation," *Millennium: Journal of International Studies*, Vol. 17, No. 3 (December 1988), pp. 429–440; Rebecca Grant and Kathleen Newland, eds., *Gender and International Relations* (Bloomington: Indiana University Press, 1991); Jan Jindy Pettman, *Worlding Women: A Feminist International Politics* (New York: Routledge, 1996); and Marysia Zalewski and Jane L. Parpart, eds., *The "Man" Question in International Relations* (Boulder, Colo.: Lynne Rienner, 1998). See also Francis Fukuyama, "Women and the Evolution of World Politics," *Foreign Affairs*, Vol. 77, No. 5 (September/October 1998), pp. 24–40.

73. Hunt and Posa, "Women Waging Peace"; and Natalie Florea Hudson, "Securitizing Women

The empirical literature linking the security of women to the security of states does not, however, generally conform to accepted (though contested) social science norms of standard statistical hypothesis testing. Important theorists in feminist security studies have argued that such methodological norms are either an uncomfortable fit with feminism or antithetical to a feminist stance.⁷⁴ Using in-depth ethnographic case studies, process tracing, and poststructuralist discourse analysis, many fine empirical works in feminist security studies have been penned.⁷⁵ Nevertheless, their insights remain at the margins of mainstream security studies because the initial hurdle after theoretical assertion—to wit, acceptable conventional empirical warrant—has not been cleared.

We agree with those who lament this marginalization.⁷⁶ At the same time, we believe that this hurdle can be cleared. Indeed, it is possible that the marginalization of feminist insights derived from unconventional methodologies would lessen as a result. We do not believe that conventional empirical methodologies are antithetical to feminist research; indeed, very valuable insights can be gained from feminist use of conventional methodology.⁷⁷ Here we survey several examples of how this may be done, noting that there are similar small literatures linking women and state security that we do not examine here, in fields such as comparative politics, geography, and psychology.

In a recent empirical analysis of Muslim societies, Steven Fish disconfirms the notion that Islamic societies per se are disproportionately involved in conflict or disproportionately suffer from authoritarian rule.⁷⁸ Rather, Fish un-

and Gender Equality: Who and What Is It Good For?" paper presented at the International Studies Association, Chicago, Illinois, March 2007. See also Peace Women, <http://www.peacewomen.org>.

74. J. Ann Tickner, "What Is Your Research Program? Some Feminist Answers to International Relations Methodological Questions," *International Studies Quarterly*, Vol. 49, No. 1 (March 2005), pp. 1–21; V. Spike Peterson, "(On) The Cutting Edge: Feminist Research in International Relations," presentation at the University of Arizona Association for Women Faculty Meeting, Tucson, Arizona, February 1991; Sylvester, "'Progress' as Feminist International Relations"; and Jill Steans, "Engaging from the Margins: Feminist Encounters with the 'Mainstream' of International Relations," *British Journal of Politics and International Relations*, Vol. 5, No. 3 (August 2003), pp. 428–454.

75. See, for example, Lene Hansen, *Security as Practice: Discourse Analysis and the Bosnian War* (New York: Routledge, 2006); Sandra Whitworth, *Men, Militarism, and UN Peacekeeping: A Gendered Analysis* (Boulder, Colo.: Lynne Rienner, 2004); Dubravka Žarkov, *The Body of War: Media, Ethnicity, and Gender in the Break-Up of Yugoslavia* (Durham, N.C.: Duke University Press, 2007); and Dyan Mazurana, Angela Raven-Roberts, and Jane Parpart, eds., *Gender, Conflict, and Peacekeeping* (Lanham, Md.: Rowman and Littlefield, 2005).

76. Sylvester, *Feminist International Relations*.

77. Mary Caprioli, "Feminist IR Theory and Quantitative Methodology: A Critical Analysis," *International Studies Review*, Vol. 6, No. 2 (June 2004), pp. 253–269.

78. M. Steven Fish, "Islam and Authoritarianism," *World Politics*, Vol. 55, No. 1 (October 2002), pp. 4–37.

covers two indicators that better explain the variance of these variables in the Islamic world: sex ratio and the literacy gap between males and females. Fish finds that statistical models incorporating these two variables are significantly correlated to authoritarianism in Islamic countries. He hypothesizes that the oppression of females—one of the earliest social acts observed by all in the society—provides the template for other types of oppression, including authoritarianism, in Islamic nation-states.

A body of conventional empirical work spearheaded by Mary Caprioli links measures of domestic gender inequality—though these measures do not include levels of violence against women as investigated in this article—to state-level variables concerning conflict and security, with statistically significant results. Caprioli shows that states with higher levels of social, economic, and political gender equality are less likely to rely on military force to settle disputes.⁷⁹ Caprioli and Mark Boyer show that states exhibiting high levels of gender equality also exhibit lower levels of violence in international crises and disputes.⁸⁰ Examining aggregate data over a fifty-year period (1954–94), they found a statistically significant relationship between the level of violence in a crisis and the percentage of female leaders. Caprioli extends this analysis to militarized interstate disputes and finds a similar relationship: states with the highest levels of gender equality display lower levels of aggression in these disputes and were less likely to use force first.⁸¹ Virtually the same pattern was found with respect to intrastate incidents of conflict.⁸² Caprioli and Peter Trumbore find that states characterized by norms of gender and ethnic inequality as well as human rights abuses are more likely to become involved in militarized interstate disputes and in violent interstate disputes, to be the aggressors during international disputes, and to rely on force when involved in an international dispute.⁸³ David Sobek and his coauthors confirm Caprioli

79. Mary Caprioli, "Gendered Conflict," *Journal of Peace Research*, Vol. 37, No. 1 (January 2000), pp. 51–68.

80. Mary Caprioli and Mark A. Boyer, "Gender, Violence, and International Crisis," *Journal of Conflict Resolution*, Vol. 45, No. 4 (August 2001), pp. 503–518.

81. Mary Caprioli, "Gender Equality and State Aggression: The Impact of Domestic Gender Equality on State First Use of Force," *International Interactions*, Vol. 29, No. 3 (July/September 2003), pp. 195–214. These results were replicated by Erik Melander, "Gender Equality and Interstate Armed Conflict," *International Studies Quarterly*, Vol. 49, No. 4 (December 2005), pp. 695–714. See also Monty G. Marshall and Donna Ramsey, "Gender Empowerment and the Willingness of States to Use Force," unpublished research paper, Center for Systemic Peace, 1999.

82. Mary Caprioli, "Primed for Violence."

83. Mary Caprioli and Peter F. Trumbore, "Human Rights Rogues in Interstate Disputes, 1980–2001," *Journal of Peace Research*, Vol. 43, No. 2 (March 2006), pp. 131–148; Mary Caprioli and Peter F. Trumbore, "Identifying 'Rogue' States and Testing Their Interstate Conflict Behavior," *European Journal of International Relations*, Vol. 9, No. 3 (September 2003), pp. 377–406; and Mary Caprioli

and Trumbore's findings that domestic norms centered on equality and respect for human rights reduce international conflict.⁸⁴ In sum, this body of work demonstrates that the promotion of gender equality goes far beyond the issue of social justice and has important consequences for international security.

Rose McDermott and Jonathan Cowden examine sex differences in aggression within the context of a simulated crisis game.⁸⁵ In these experiments, all-female pairs proved significantly less likely than all-male pairs to spend money on weapons procurement or to go to war in the face of a crisis. In further research, McDermott and her coauthors find that in simulation, males are more likely to display overconfidence prior to gaming and are more likely to use unprovoked violence as a tactic.⁸⁶ These types of simulations, despite their constraints, permit the inclusion of sex-based psychological variables in theories concerning the micro processes by which gender differences might affect resulting state security processes and outcomes.⁸⁷

Ronald Inglehart and Pippa Norris, though not researching nation-state behavior per se, examine psychological attitudes toward women across "civilizations" defined more traditionally in terms of religion or ethnicity. They find that, contrary to popular impression, beliefs about democracy and other political values are not very different between, say, Islamic and Christian cultures. Beliefs about gender equality, however, differ markedly, which they take to be evidence that the conceptualization of culture, or the nation-state, or civilization must be redefined to include a gender perspective. Furthermore, they find strong associations between psychological attitudes about women and indicators such as the percentage of women elected to national legislatures.⁸⁸

These findings are encouraging: using conventional methodologies, aspects

and Peter F. Trumbore, "Ethnic Discrimination and Interstate Violence: Testing the International Impact of Domestic Behavior," *Journal of Peace Research*, Vol. 40, No. 1 (January 2003), pp. 5–23.

84. David Sobek, M. Rodwan Abouharb, and Christopher G. Ingram, "The Human Rights Peace: How the Respect for Human Rights at Home Leads to Peace Abroad," *Journal of Politics*, Vol. 68, No. 3 (August 2006), pp. 519–529.

85. Rose McDermott and Jonathan Cowden, "The Effects of Uncertainty and Sex in a Crisis Simulation Game," *International Interactions*, Vol. 27, No. 4 (2002), pp. 353–380.

86. Dominic P. Johnson, Rose McDermott, Emily S. Barrett, Jonathan Cowden, Richard Wrangham, Matthew H. McIntyre, and Stephen Peter Rosen, "Overconfidence in Wargames: Experimental Evidence on Expectations, Aggression, Gender, and Testosterone," *Proceedings of the Royal Society (Biology)*, Vol. 273 (June 2006), pp. 2513–2520.

87. Natalie B. Florea, Mark A. Boyer, Scott W. Brown, Michael J. Butler, Magnolia Hernandez, Kimberly Weir, Lin Meng, Paula R. Johnson, Clarisse Lima, and Hayley J. Mayall, "Negotiating from Mars to Venus: Gender in Simulated International Negotiations," *Simulation & Gaming*, Vol. 34, No. 2 (June 2003), pp. 226–248.

88. Ronald Inglehart and Pippa Norris, "The True Clash of Civilizations," *Foreign Policy*, No. 135 (March/April 2003), pp. 63–70; and Ronald Inglehart and Pippa Norris, *Rising Tide: Gender Equality and Cultural Change around the World* (New York: Cambridge University Press, 2003).

of the relationship that we would expect to find between the security of women and the security of states can be glimpsed. Below we subject the women and peace thesis to more comprehensive empirical testing.

An Initial Empirical Investigation

If the women and peace thesis elucidated in the previous section is valid, the proposition follows that measures of women's physical security should be strongly associated with measures of state security. Furthermore, the degree of association should meet or exceed that of established alternative hypotheses.

Despite the many differing cultural conceptions of women and women's lives, certain underlying aspects of their lives can be assessed to determine the security and status of a woman in her society, and this status may, justifiably, be compared cross-nationally. According to Martha Nussbaum, observable variables such as highly abnormal sex ratios in favor of males, or denying girls the legal right or access to education, can be applied cross-nationally to determine gender status beliefs and the security and status of women.⁸⁹ We apply the same logic to create a cross-national scale of women's physical security.

Although there are many possible indicators of state security, in this analysis we focus on three measures as dependent variables. First, we examine a general measure of state peacefulness (the Global Peace Index, or GPI). The GPI score incorporates twenty-four indicators, including external conflicts, civil conflicts, and military expenditures. Second, we investigate a general measure of the degree of behavioral deviancy of the state in light of international norms (the States of Concern to the International Community, or SOCIC scale). This scale, which overlaps in conceptualization with the GPI, also includes information, absent in the GPI, on whether the state has violated certain security-related international treaties and covenants, such as the Nuclear Nonproliferation Treaty (NPT) or the Convention against Torture. Third, we analyze one of the GPI subcomponent indicators, Relations with Neighbors (RN). Dominance hierarchies rooted in the domination of one sex by the other should manifest their dysfunctionality in relations with neighboring countries, even if dominance cannot be projected in a global sense.

In this exploratory empirical analysis, we examine two hypotheses that probe the linkage between the security of women and the security of states.

89. Martha C. Nussbaum, *Women and Human Development: The Capabilities Approach* (Cambridge: Cambridge University Press, 2000); and Martha C. Nussbaum, "Human Capabilities, Female Human Beings," in Nussbaum and Glover, *Women, Culture, and Development*, pp. 61–104.

H1: Higher levels of women's physical security will exhibit significant and positive statistical association with the Global Peace Index, the States of Concern to the International Community Scale, and the Relations with Neighbors subcomponent of GPI.

H2: As measured by polytomous logistic regression pseudo R-squared values in both bivariate and multivariate analysis, measures of the physical security of women in society will be better predictors of the above dependent variables measuring state security than indicators related to more established explanations based on state attributes, such as level of democracy, level of wealth, or prevalence of Islamic civilization.⁹⁰

COUNTRY-SPECIFIC DATA ON WOMEN, OR THE LACK THEREOF

As scholars and politicians start to recognize the importance of the situation of women to political and economic stability as well as to peace, indices on gender equality have likewise assumed greater importance. One of the most striking features of the research agenda we are pursuing, however, is a paucity of meaningful indicators with which to investigate its propositions.

There are several useful compilations of statistics concerning the status of women: the UN's Women's Indicators and Statistics Database (WISTAT; approximately 76 statistics), GenderStats (21 statistics), and the World Economic Forum's Gender Gap Project (33 statistics), with a significant degree of overlap among these data sources. Due to issues of missing values, comparability, and longitudinality, however, most scholars have in practice relied on one or a small handful of statistics to measure women's status. In an informal survey of the empirical literature, the overwhelming majority of gender statistics used in cross-national empirical analysis came from the following limited list: female representation in parliament, female literacy rates, female enrollment in education, female life expectancy, female representation in the formal economy, and female suffrage/political representation. These are important statistics, but even taken as a whole, they do not capture the nuanced differences of women's status across nation-states. Furthermore, none of these variables directly addresses issues concerning the physical security of women (though life expectancy is an indirect indicator).

Beyond single statistical measures, there have been some laudatory attempts

90. To test the civilizational explanation for state peacefulness, we must first identify a particular identity associated with greater levels of conflict or a lack of state peacefulness. In the early years of the twenty-first century, Islamic civilization—rightly or wrongly—has been singled out for this dubious distinction. See, for example, Lee Harris, *Civilization and Its Enemies: The Next Stage of History* (New York: Free Press, 2004); Norman Podhoretz, *World War IV: The Long Struggle against Islamofascism* (New York: Doubleday, 2007); and Oriana Fallaci, *The Force of Reason* (London: Rizzoli, 2006). Huntington makes particular reference to Islam's "bloody borders" in *The Clash of Civilizations and the Remaking of World Order*.

to create multivariable indices of women's status. Two of these indices, developed in 1995, are the UN's Development Programme Gender Empowerment Measure (GEM) and the Gender Development Index (GDI). These oft-used indices, though pioneering, still leave much to be desired in light of the research agenda we wish to pursue, because they rely on fewer than a half dozen of the most often used statistics, primarily those cited above, and omit measures of violence against women. The Cingranelli-Richards (CIRI) Human Rights Dataset has also developed three indices of women's rights.⁹¹ These include four-point indices of women's political rights, women's economic rights, and women's social rights, and CIRI is to be commended for its attempt to include gender-sensitive indicators in its dataset. At the same time, the CIRI index seeks to capture the stance taken by the government, not the actual situation of women in the country.

The Gender Gap analysis of the World Economic Forum (WEF) is the most ambitious project to date to more fully capture the situation of women. The WEF has developed eight scales: the coding for four of these is obscure (paternal vs. maternal authority, polygamy, female genital mutilation, and the existence of laws punishing violence against women). The coding for the other four scales, however—economic participation and opportunity (5 statistics), educational attainment (4 statistics), political empowerment (3 statistics), and health and survival (2 statistics)—contain the half dozen usual statistics, as cited above, plus variants; for example, Educational Attainment looks at gaps not only in female-to-male literacy but also in enrollment figures at the primary, secondary, and tertiary levels. Although this is a very impressive achievement, once again important variables concerning the status of women—for example, rates of violence against women—are not compiled. In all of the scales, there is a persistent reliance on easily quantified information, to the exclusion of qualitative information that can provide a more nuanced view of the situation of women. The UN Economic Commission on Africa's AGDI (African Gender and Development Index) comes much closer to our ideal of multifactorial, qualitative-plus-quantitative measures used as the foundation for a richer scaling of the cross-national status of women, but it was scaled for only twelve sub-Saharan African nations.⁹²

Researchers seeking to study the impact of gender inequality on state secu-

91. David L. Cingranelli and David L. Richards, "CIRI Human Rights Data Project," version 2006.10.02, <http://www.humanrightsdata.org>.

92. Economic Commission for Africa, *The African Gender and Development Index* (Addis Ababa: Economic Commission for Africa, 2004), http://www.uneca.org/eca_programmes/acgd/publications/agdi_book_final.pdf, 2005.

rity and behavior are thus faced with a serious challenge. There are 6 to 10 variables concerning women that are easily quantified and that form the basis for most analysis of the situation of women in the world today. But to advance a research agenda linking the security of women and the security of states, more robust capabilities must be developed. Scholars must expand beyond the confines of the most easily obtainable information, and they must incorporate not only statistics but also more detailed qualitative information. The empirical research agenda we wish to advance, then, requires creation of the means by which it could effectively be pursued. We created the WomanStats Database to address this need. This database compiles data on more than 260 variables concerning the security and situation of women for 174 states, and currently contains more than 100,000 data points.⁹³

Realizing the frequent discrepancy between rhetoric, law, and practice, we seek data on three aspects of each phenomenon in which we are interested—law, practice/custom, and statistical information. This allows researchers to access useful and reliable data regardless of their preferred method of inquiry, quantitative or qualitative. Quantitatively oriented researchers can find statistics on the prevalence of particular practices as readily as qualitatively oriented researchers can locate narrative information on the experiences and lives of women. We are thus able to provide a richer data source for researchers dissatisfied with relatively superficial indicators and empower them to create their own indices. For example, when examining the phenomenon of domestic violence, we collect data not only on the incidence of domestic violence and laws concerning domestic violence but also custom and practice concerning domestic violence. So, for example, is domestic violence generally reported? Why or why not? What is the level of societal support for victims of domestic violence, such as the existence of shelters and hotlines? How is fault decided in legal cases concerning domestic violence? What is the range of punishment for this offense? Is violence sometimes sanctioned by the culture, such as in the cases of “disobedience” by a wife or daughter? Are there regional, religious, or ethnic differences in the incidence of domestic violence within the society? Are there other barriers to enforcement of the law, such as low arrest and/or conviction rates? In the WomanStats Database, there are 7 variables on domestic violence alone; 11 on rape; 15 on marriage practice, and so forth.⁹⁴

93. Caprioli et al., “The WomanStats Project Database.”

94. The data are freely accessible to anyone with an internet connection, thus facilitating worldwide scholarship on these issues. Contribution of data via remote upload is also possible for approved credentialed sources. See <http://www.womanstats.org>.

METHODS AND RESULTS

In this section we first reflect on broader issues of causal imputation in conventional statistical analysis of the women and peace thesis. Next we operationalize the relevant variables and present the results of our initial empirical investigation.

THE ISSUE OF CAUSALITY. Before we present our empirical analysis, a word on what we can and cannot aspire to say through this effort. At this stage, we seek only to clear the initial hurdle of conventional empirical warrant for further investigation of a theoretical stance linking the security of women and the security of states. The question of causality is complicated by data concerns, theoretical concerns, and philosophical concerns. Data concerns are obvious: our scaling of the physical security of women, being new, has not been applied longitudinally. Without temporal variance, no conventional statistical causal analysis is possible. Second, when using evolutionary theory, ultimate evolutionary causes are shrouded in ancient prehistory. If violent patriarchy due to male dominance as a reproductive strategy is indeed primal in human society, then one might have to contemplate interspecies comparison to even be capable of seeing contrast—which raises so many issues as to make recourse to such a strategy quite problematic. Third, there are philosophical concerns: many scholars in the field of feminist security studies believe that conventional notions of causality do not apply where phenomena are co-constitutive, and that violence against women and state violence may well be co-constitutive. In this view, if scholars must confine themselves to an arbitrary temporal separation to show causality, co-constitutive phenomena will defy the logic of conventional empirical investigation—perhaps ruling out the very notion of a gendered analysis.⁹⁵

We do aspire one day to conventionally ascertain causality through temporal extension of the physical security of women scale, but here we must content ourselves with assessing the significance of association in the context of what we think are strong theoretical reasons to believe that dominance hierarchies rooted in evolutionary human male reproductive strategies do create templates of violence that widely diffuse through society, affecting even state behavior in relation to internal and external entities. In a sense, what we are probing for is whether the degree of mitigation of the primal templates of violent patriarchy (measured as variation in the prevalence and level of violence against women) is reflected in mitigation of state insecurity and violence. The greater the mitigation of the first, the greater we should find the mitigation

95. Hansen, *Security as Practice*.

of the second to be. This stance does not rule out the possibility that state insecurity and violence in turn exaggerate the insecurity of women.

OPERATIONALIZATIONS. To test the hypotheses presented earlier in this section, each of the variables listed below must be operationalized.

- Physical Security of Women Index (PSOW). This five-point ordinal scale attempts to capture the degree of physical threat experienced by women generally within the society. The scale focuses in particular on the level of violence against women, including the prevalence of domestic violence, rape, marital rape, and murder of women in the nation. These subcomponents are examined in terms of custom, practice, law, and statistics related to these four forms of violence against women. This index is coded as MULTIVAR-SCALE-1 in the WomanStats Database; coded July 2007; coding scheme outlined in the codebook found at <http://womanstats.org/Codebook7.30.07.htm>.
- Variant of Physical Security of Women Index (PSOWSP). Using the ordinal PSOW score as a baseline, this variant includes the degree to which son preference is present within a society, and to what degree such a preference is enacted in society by offspring sex selection. That is, not only is the physical security of existing women important, but it is a matter of physical security for women if the births of female fetuses are selectively precluded. The variable ISSA-SCALE-1 in the WomanStats Database is thus used to supplement the PSOW scale point for each nation; coded February 2007; coding scheme found in codebook listed above.
- The Global Peace Index (GPI) is coded by the Economist Intelligence Unit (EIU). The EIU notes, "The concept of peace is notoriously difficult to define. The simplest way of approaching it is in terms of harmony achieved by the absence of war or conflict. Applied to nations, this would suggest that those not involved in violent conflicts with neighbouring states or suffering internal wars would have achieved a state of peace. This is what Johan Galtung defined as a 'negative peace'—an absence of violence. The concept of negative peace is immediately intuitive and empirically measurable" (<http://www.visionofhumanity.org/gpi/about-gpi/overview.php>). The EIU uses twenty-four indicators to compose its state scores, which can be found at <http://www.visionofhumanity.com/rankings/>; rounded ordinal scores for 2007, with scores ranging from 1 to 5, were used in our analysis.
- States of Concern to the International Community (SOCIC). As noted above, while this scale overlaps GPI in conceptualization, its operationalized form contains information lacking in the GPI, specifically, the degree to which

the nation deviates from security-related international treaties and covenants. Thus, noncompliance with several important treaties, such as the NPT, is included in this index. This ordinal scale is elucidated by Valerie Hudson and Carl Brinton; coded July 2007; <http://womanstats.org/APSA07HudsonBrinton.pdf>.

- Relations with Neighbors (RN). This 5-point ordinal measure is coded by the Economist Intelligence Unit, and seeks to capture how strained or how peaceful interstate relations are between nations with contiguous borders. In our analysis, we use the 2007 scores; http://www.visionofhumanity.com/GPI_Indicators/index.php.
- Level of Democracy is coded by Freedom House as a trichotomy (free; partly free; not free). Although there are several good sources for a scaling of democracy, including the Polity IV data, the Freedom House measures are often used in international relations scholarship, and offer a methodological advantage in this particular analytic effort in that polytomous logistic regression results can be affected by a serious mismatch in number of scale points between independent and dependent variables. Our dependent variables are all 5-point scales; Freedom House is a 3-point scale, whereas Polity IV is a 21-point scale. We used the Freedom House data coded 2007; <http://www.freedomhouse.org/template.cfm?page+1>.
- Level of Wealth is operationalized as GDP per capita. Although GDP per capita is a crude measure, it is often used in empirical analysis for its broad indication of level of national wealth and economic development. In our analysis, we use GDP per capita as coded by the 2007 CIA World Factbook; countries identified by quintile; <https://www.cia.gov/library/publications/the-world-factbook/index.html>.
- Islamic Civilization. This scale indicates the degree to which adherence to the Islamic religion is prevalent within the nation. This ordinal scale is coded by Matthew Stearmer and Chad Emmett; <http://womanstats.org/StearmerEmmettAPSA07.pdf>.

RESULTS. The first cluster of hypotheses inquires as to whether there is a statistically significant relationship between our measures of the physical security of women and three dependent variables: GPI, SOCIC, and RN. Table 1 summarizes our results from chi-square testing.

The observable relationships for this first cluster of hypotheses are highly statistically significant. The physical security of women, whether that is measured including or excluding the enactment of son preference through female infanticide and sex-selective abortion, is strongly associated with the peaceful-

Table 1. Chi-Square Results: Physical Security of Women and Measures of State Security

Variables	Chi-Square (likelihood ratio)	df	Significance $p <$
PSOW and GPI $N=105$	41.212 (47.077)	12	0.0001
PSOWSP and GPI $N=105$	36.623 (44.162)	12	0.0001
PSOW and SOCIC $N=140$	88.122 (88.050)	12	0.0001
PSOWSP and SOCIC $N=140$	78.136 (84.320)	12	0.0001
PSOW and RN $N=106$	45.884 (46.438)	12	0.0001
PSOWSP and RN $N=106$	44.029 (44.697)	12	0.0001

PSOW=Physical Security of Women; PSOWSP=Physical Security of Women and Son Preference; GPI=Global Peace Index; SOCIC=States of Concern to the International Community; and RN=Relations with Neighbors

ness of the state, the degree to which the state is of concern to the international community, and the quality of relations between the state and its neighbors.

However, the other three alternative explanatory variables (democracy, wealth, Islamic civilization) are also significantly associated with these same security measures (with one exception: prevalence of Islam is not significantly related to GPI at the 0.01 level.) Therefore, our second set of hypotheses concerns the relative explanatory power of our measure of the physical security of women as it relates to the dependent variables of interest. Does our measure of the physical security of women explain as much of the variance in state peacefulness and the degree to which a state is of concern to the international community as do more conventional explanatory variables? Specifically, how does the physical security of women compare as an explanatory variable to standard measures of level of democracy, level of wealth, and prevalence of Islamic culture? Because of the ordinal nature of the data, polytomous logistic regression was used, with pseudo *R*-squareds computed. For simplicity of display, we used only the measure of the physical security of women that did not incorporate degree of son preference, except when needed in the case where the original scale failed the test of parallel lines that renders the pseudo *R*-squared measure unreliable. Table 2 lays out the Cox and Snell pseudo *R*-squareds for the bivariate polytomous logistic regressions performed.

Table 2. Cox and Snell Pseudo *R*-Squareds for Bivariate Polytomous Logistic Regression: Measures of Physical Security of Women and Three Dependent Variables of State Security

Variables	Pseudo <i>R</i> -Squared Value ^a
GPI on PSOW, <i>N</i> =105	0.299
GPI on Democracy, <i>N</i> =105	0.203
GPI on Wealth, <i>N</i> =105	Fails parallel line test; measure unreliable
GPI on Islamic Civilization, <i>N</i> =105	0.084
SOCIC on PSOW, <i>N</i> =140	0.426
SOCIC on Democracy, <i>N</i> =141	0.412
SOCIC on Wealth, <i>N</i> =141	0.313
SOCIC on Islamic Civilization, <i>N</i> =141	0.106
RN on PSOWSP (PSOW failed test of parallel lines), <i>N</i> =106	0.309
RN on Democracy, <i>N</i> =106	0.246
RN on Wealth, <i>N</i> =106	Fails parallel line test; measure unreliable ^b
RN on Islamic Civilization, <i>N</i> =106	0.103

PSOW=Physical Security of Women; PSOWSP=Physical Security of Women and Son Preference; GPI=Global Peace Index; SOCIC=States of Concern to the International Community; and RN=Relations with Neighbors

^aAll model-fitting measures are significant at the 0.001 level.

^bAnother measure, Enduring Rivalries (ER), coded by Paul Diehl and Gary Goertz, *War and Peace in International Rivalry* (Ann Arbor: University of Michigan Press, 2000), correlates significantly with Relations with Neighbors. The Cox and Snell pseudo *R*-squared for ER on gross domestic per capita Quintile is 0.036, and the model-fitting measures are not statistically significant. This may give us some insight into the relationship between wealth and relations with neighbors.

These results indicate that the prevalence of Islamic culture is not, comparatively speaking, an important predictor of the level of peacefulness of the state, or of the degree to which a state is of concern to the international community, or of the quality of relations between the state and its neighbors. The pseudo *R*-squared values for level of democracy, wealth, and the physical security of women are all much higher than those for Islamic culture, and in multivariate analysis this variable is not a significant discriminator (see appendix for full multivariate results).

In comparing bivariate regression results for the three alternative independent variables, the highest pseudo *R*-squareds are obtained for the measure of the physical security of women. In three of the four possible comparisons (level of democracy/physical security in reference to GPI; level of wealth/physical security in reference to SOCIC; and level of democracy/physical security of women in reference to RN), the physical security of women outper-

forms the other explanatory variables. In the fourth possible comparison (level of democracy/physical security of women in reference to SOCIC), the pseudo *R*-squareds are too close to represent a meaningful difference, though technically the pseudo *R*-squared for the physical security of women measure is higher than that for level of democracy.

Multivariate regression allows us to control for the alternative independent variables. Although space does not permit all three tables of multivariate results to be displayed, the appendix presents the multivariate regression of GPI on all four independent variables. In this analysis, the best significant discrimination is also obtained with the PSOW scale, as compared with the other three variables (see appendix). Especially noteworthy in the multivariate analysis is that the discrimination afforded by PSOW dwarfs that provided by level of democracy.

These results indicate that if a scholar or policymaker had to select one variable—level of democracy, level of wealth, prevalence of Islamic culture, or the physical security of women—to assist them in predicting which states would be the least peaceful or of the most concern to the international community or have the worst relations with their neighbors, they would do best by choosing the measure of the physical security of women.

Conclusion

We find conventional empirical warrant for hypotheses linking the security of women and the security of states. There is a strong and statistically significant relationship between the physical security of women and three measures capturing the relative peacefulness of states. Furthermore, in comparative testing with other conventional explanatory factors assumed to be related to such measures of state security—factors including level of democracy, level of wealth, and prevalence of Islamic civilization—the physical security of women explains more of the variance in the same three measures of state security in both bivariate and multivariate analysis. We hasten to add that we view these results as a preliminary excursion into a methodologically conventional research agenda linking the security of women and the security of states. Much more in the way of empirical analysis must be performed before these results can be considered authoritative; in addition, we believe that unconventional methodologies also offer important insights that must not be overlooked in the quest for conventional warrant. Nevertheless, even in preliminary form, these are challenging and provocative results.

These results lead us to ask anew: What constitutes security? And how is security to be obtained? An account of security that does not take into account gender-based violence is an impoverished account of security. This assertion does not spring from some dogma of political correctness; rather, this assertion is based on fairly robust, though preliminary, empirical findings. We find a strong and significant relationship between the physical security of women and the peacefulness of states. Furthermore, we believe there are sound theoretical reasons to expect this relationship to obtain: when evolutionary forces predisposing to violent patriarchy are not checked through the use of cultural selection and social learning to ameliorate gender inequality, we assert that dysfunctional templates of violence and control diffuse throughout society and are manifested in state security and behavior. Combining our present results with those of previous research efforts,⁹⁶ not only do we fail to falsify that theoretical assertion using conventional aggregate statistical hypothesis-testing methodologies, but we find greater empirical warrant for that assertion than for several well-established alternative hypotheses.

We can now envision new research questions for security studies, which are possible to raise only if the linkage between the security of women and the security of states is taken seriously in that field. For example, our theoretical framework suggests that a major state instantiation of gender hierarchy is inequitable family law: Are states with greater inequities in family law also likely to be a troubling influence within the international system? What happens to state security when a state permits “enclaves” of inequitable family law to be established within its borders? Terrorism is another topic that may profit from a gender analysis: Does polygamy lead to marriage market dislocations, which also heighten the allure of the terrorism among young adult males with no hope of eventually marrying?⁹⁷ Does the subjected status of women feed into the development of terrorist groups offering a promise of greater equality to women, such as one sees in Sri Lanka and Nepal? Similarly, security demographics is a nascent subfield that, we argue, must incorporate gender lenses: For example, is implementation of son preference through female infanticide and sex-selective abortion a predisposing factor for state in-

96. Johnson et al., “Overconfidence in Wargames”; Caprioli, “Gendered Conflict”; Caprioli, “Primed for Violence”; Caprioli, “Gender Equality and State Aggression”; Melander, “Gender Equality and Interstate Armed Conflict”; and Sobek, Abouharb, and Ingram, “The Human Rights Peace.”

97. Bradley Thayer, “Evolutionary Insights into Suicide Terrorism,” paper presented at the annual meeting of the American Political Science Association, Chicago, Illinois, August 30–September 2, 2007.

stability and bellicosity?⁹⁸ And what would Samuel Huntington's map look like if we redrew it along the lines of differences in the security of women? Would we see a new type or definition of "civilization" by looking at that map, and would it give us greater leverage on questions of identity, conflict, and security than Huntington's original map, which divides the world into Islamic, Confucian, Western, and other civilizations?⁹⁹ Is the recently noted ability of populations to increase their happiness set-point over time linked to the improving security of women in those nations,¹⁰⁰ and what ramifications will that have for state behavior? In the subfield of foreign policy analysis, are there identifiable differences in processes and outcomes of foreign policy decision-making in nations with higher levels of gender equality? Does the average psychological profile and foreign policy orientation of national leaders differ between countries with higher versus lower levels of security for women?

In addition to these fresh new questions in the academic field of security studies, we must not overlook that, additionally, women's status may actually be an integral element of any proposed solutions for international conflict. Although the treatment of women is written deeply in the culture of a society, it is amenable to change. Women have recently received the right to vote and stand for office in countries where they have not had that right before; UN Security Council Resolutions 1325 and 1820 have changed peacekeeping and conflict resolution practices on the ground; stricter enforcement of laws against sex-selective abortion is making a dent in abnormal birth sex ratios in some countries. There is no reason to shrug helplessly if we identify the insecurity of women as an important factor in state insecurity and conflict. To the contrary, the recognition that the security of women influences the security of states offers policymakers an inestimably valuable policy agenda in the quest for greater peace and stability in the international system. Much blood and treasure has been spent on the export of democracy or free-market capitalism in the pursuit of less conflictual international relations, with less success than hoped: Is it possible that the export of norms of greater gender equality may prove a more promising and effective strategy? Such norms would include not only high levels of physical security for women but also equity under the law and parity in the councils of national decisionmaking. Our results suggest that

98. Valerie M. Hudson and Andrea Den Boer, *Bare Branches: The Security Implications of Asia's Surplus Male Population* (Cambridge, Mass.: MIT Press, 2004).

99. Huntington, *The Clash of Civilizations and the Remaking of World Order*.

100. Ronald Inglehart, Roberto Foa, Christopher Peterson, and Christian Welzel, "Development, Freedom, and Rising Happiness: A Global Perspective (1981–2007)," *Perspectives on Psychological Science*, Vol. 3, No. 4 (July 2008), pp. 264–285.

to both understand and promote national and international security, scholars and policymakers cannot overlook the situation and treatment of women. Security is a garment that must be woven without seam: if we are not paying attention, the loose threads of women's systemic insecurity will unravel peace for all.

Appendix. Multivariate Polytomous Logistic Regression of Global Peace Index (GPI) on Four Independent Variables

	Parameter Estimates				95% Confidence Interval			
	Estimate	Standard Error	Wald	df	Significance	Lower Bound	Upper Bound	
Threshold	[GPIRounded + 1]	1.068	26.409	1	0.000	-7.582	-3.395	
	[GPIRounded + 2]	-1.958	0.892	4.811	1	0.028	-3.707	-0.208
	[GPIRounded + 3]	0.828	0.869	0.907	1	0.341	-0.875	2.530
	[GPIRounded + 4]	2.890	1.077	7.200	1	0.007	0.779	5.001
Location	[VAW+1]	-2.499	1.059	5.570	1	0.018	-4.574	-0.424
	[VAW+2]	-1.570	0.774	4.113	1	0.043	-3.087	-0.053
	[VAW+3]	-0.446	0.586	0.579	1	0.447	-1.595	0.703
	[VAW+4]	0*	—	—	0	—	—	—
	[FreedomHouse07+1]	-0.973	0.652	2.224	1	0.136	-2.252	0.306
	[FreedomHouse07+2]	-0.693	0.610	1.288	1	0.256	-1.889	0.504
	[FreedomHouse07+3]	0*	—	—	0	—	—	—
	[Quintile+1]	-2.067	0.949	4.745	1	0.029	-3.926	-0.207
[Quintile+2]	-0.844	0.860	0.962	1	0.327	-2.530	0.842	
[Quintile+3]	0.469	0.828	0.320	1	0.571	-1.154	2.092	
[Quintile+4]	0.523	0.880	0.353	1	0.553	-1.202	2.247	
[Quintile+5]	0*	—	—	0	—	—	—	
[Islamic+0]	-0.140	0.647	0.047	1	0.828	-1.409	1.128	
[Islamic+1]	0*	—	—	0	—	—	—	

Link function: Logit.

*This parameter is set to zero because it is redundant.