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## ENDING FOOTBINDING AND INFIBULATION: A CONVENTION ACCOUNT\*

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*Female genital mutilation in Africa persists despite modernization, public education, and legal prohibition. Female footbinding in China lasted for 1,000 years but ended in a single generation. I show that each practice is a self-enforcing convention, in Schelling's (1960) sense, maintained by interdependent expectations on the marriage market. Each practice originated under conditions of extreme resource polygyny as a means of enforcing the imperial male's exclusive sexual access to his female consorts. Extreme polygyny also caused a competitive upward flow of women and a downward flow of conjugal practices, accounting for diffusion of the practices. A Schelling coordination diagram explains how the three methods of the Chinese campaign to abolish footbinding succeeded in bringing it to a quick end. The pivotal innovation was to form associations of parents who pledged not to footbind their daughters nor let their sons marry footbound women. The "convention" hypothesis predicts that promotion of such pledge associations would help bring female genital mutilation to an end.*

Female genital mutilation (clitoridectomy and infibulation; hereafter FGM), a painful and dangerous practice, is one of the major human rights and public health problems in the world today. It affects perhaps as many as 100 million women across some two dozen countries in Africa. Opposition to FGM is now part of American human rights policy (U.S. Department of State 1994:xvi), and the U.S. Agency for International Development is assisting the African organizations working to eradicate it (Mann 1994).

Rather than diminishing with modernization, the practice is spreading. Many observers, especially those indigenous, predict that ending infibulation will be slow—taking up

to 300 years, according to one educated Sudanese (Lightfoot-Klein 1989:135). Painful and dangerous footbinding afflicted most Chinese women for a thousand years, and reform-minded Chinese women at one time "agreed that footbinding was of no use, but could only be given up by degrees" (Little 1899:152). Yet footbinding ended, for the most part, in a single generation. I will show that footbinding and infibulation are closely equivalent practices, and thus that the successful campaign to end footbinding in China has lessons for the efforts to end infibulation in Africa.

Footbinding and infibulation correspond as follows: Both customs are nearly universal where practiced; they are persistent and are practiced even by those who oppose them. Both control sexual access to females and ensure female chastity and fidelity. Both are necessary for proper marriage and family honor. Both are believed to be sanctioned by tradition. Both are said to be ethnic markers, and distinct ethnic minorities may lack the practices. Both seem to have a past of contagious diffusion. Both are exaggerated over time and both increase with status. Both are supported and transmitted by women, are

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performed on girls about six to eight years old, and are generally not initiation rites. Both are believed to promote health and fertility. Both are defined as aesthetically pleasing compared with the natural alternative. Both are said to properly exaggerate the complementarity of the sexes, and both are claimed to make intercourse more pleasurable for the male. Important general differences between Imperial China and Sudanic Africa are elite concubinage in China versus commonplace polygyny in Africa, exogamy versus endogamy, and agrarian and commercial versus pastoral and horticultural production.<sup>1</sup> Important similarities between Imperial China and Sudanic Africa are their histories of imperial female slavery and their roles of emancipation for the children of concubines.

As far as I know, Ortner (1978) was the first on record with a theory relating the complex of female purity, family honor, seclusion, chastity, and fidelity (with reference to footbinding and female genital mutilation) to a past of highly stratified empires. Extreme resource polygyny and consequent hypergynous competition in an imperial past elicited the complex of honor and modesty, which persists beyond the originating conditions.<sup>2</sup> Stacey (1983:40–43) applied Ortner's theory to the case of footbinding. Dickemann (1979, 1981) presented a similar theory of paternity confidence in much greater detail, but with a strongly sociobiological bent. I borrow and modify the paternity-confidence hypothesis and, with the help of simple game theory, supplement it with an explicit theory of the endurance and demise of mutilating practices. I use Schelling's (1960, 1978) account of conventions as solutions to recurrent coordination problems to explain the local universality and persistence of footbinding and infibulation, which originated as

paternity-confidence mechanisms under conditions of imperial female slavery. The strongest alternative theory—attributing female mutilation to patriarchy—does not explain the nonuniversality of the practices under universal patriarchy, maintenance beyond originating conditions, or the end of footbinding. I use a Schelling coordination diagram to show that the end of footbinding was a convention shift in direct response to the three methods of the abolition campaigns. The major alternative theory of cessation—generalized modernization—does not seem to apply to footbinding or infibulation. Therefore the methods used to end footbinding in China might well work to end FGM in Africa.

### FOOTBINDING

Beginning at about age six to eight, the female child's four smaller toes were bent under the foot, the sole was forced to the heel, and then the foot was wrapped in a tight bandage day and night in order to mold a bowed and pointed four-inch-long appendage. Footbinding was extremely painful in the first 6 to 10 years of formative treatment. Complications included ulceration, paralysis, gangrene, and mortification of the lower limbs (Drucker 1981); perhaps 10 percent of girls did not survive the treatment (Fairbank 1992). The saying was: A mother can't love both her daughter and her daughter's feet at the same time (Blake 1994:682). Bound feet were malodorous, and treated women were crippled and largely housebound. The custom was defended even by women and was transmitted by them.

Footbinding appeared in the Sung Dynasty (960–1279), a time of strong urbanization, expanding bureaucracy, commercialization of agriculture, monetization, and thriving trade. The respective imperial capitals at the opposite ends of the Grand Canal were the largest and richest cities in the world (Fairbank and Reischauer 1978:116–51). The status of women declined in the Sung: Concubinage expanded, upper-class dowries increased, and a neo-Confucian ideology including tenets of female chastity, seclusion, and subordination, emerged and came to reign (Ebrey 1991). The first unequivocal record of footbinding is praise by an elev-

<sup>1</sup> In this article, *Sudanic* refers to the region across Africa, and *Sudan* refers to the country in Northeast Africa.

<sup>2</sup> For the periods under discussion, a man in China could have one wife and additional concubines, in non-Islamic Sudanic Africa many wives and concubines, and under Islam four wives and additional slave concubines: All are termed *polygyny* for the purposes of this article. *Hypergyny* is when women marry up—that is, a pattern of females marrying into higher ranking families.

enth-century poet of a dancer in "the palace style." A late fourteenth-century document quotes an early twelfth-century discussion of the recent origin of footbinding. Citing a source otherwise unknown to China scholars, the same discussion also states that footbinding was invented by a favorite dancer in the palace of Southern T'ang emperor and love poet Li Yu (937–978) and then spread by imitation until people were ashamed not to practice it. Casual references become more common from the late twelfth century on (Ebrey 1990; Levy 1966).

The practice effloresced along three dimensions over several centuries. First, it spread from the imperial palace, to court circles, to the larger upper classes, and then to the middle and lower classes; eventually the higher the social status, the smaller the foot. Second, it became more exaggerated over time; a practice supposedly originating among dancers eventually made dance a forgotten art. Third, it radiated from the imperial capitals to the rest of the empire. Footbinding was clearly the normal practice by the Ming Dynasty (1368–1644). As measured in 1835, it prevailed in the whole empire among the Chinese, affecting 50 to 80 percent of women depending on the locale, the disgraceful exceptions only among the lowest classes, wherever woman's work was needed in the field or workshop (Levy 1966:23–106). The missionary Justus Doolittle (1865: 201) reported that bound feet were a sign of "gentility," that "many poor families prefer to struggle along for a precarious living, bringing up their daughters with small feet . . . in order to attain a more competent support," and that some Chinese opposed footbinding as useless but felt obliged to conform for the sake of proper marriage.

The Manchu conquerors opposed footbinding, but their efforts to abolish it in 1665 failed entirely, despite intimidating penalties. An 1847 Manchu edict against footbinding also failed. Throughout the nineteenth century the practice was condemned by influential liberal literati, but with no apparent effect (Levy 1966:68–74). Some of the Protestant missionaries, particularly the women, denounced the custom. The first antifootbinding society was founded in 1874 by local missionaries for their converts. Inspired

by the American prohibitionist pledge to abstain from alcohol, the society introduced the effective technique of pledging members not to bind daughters nor let sons marry bound women. Western women organized the national Natural Foot Society, aimed at the non-Christian elite, in Shanghai in 1895. An indigenous Anti-Footbinding Society established headquarters in Shanghai in 1897 and eventually acquired 300,000 members. The societies propagandized the disadvantages of footbinding in Chinese cultural terms, promoted pledge associations, and subtly conveyed international disapproval of the custom. By 1908, leading Chinese public opinion was opposed to footbinding, and the leadership of the Natural Foot Society was transferred to a committee of Chinese women. The Nationalist Revolution banned footbinding in 1912, and the decree succeeded in many locales (Drucker 1981).

Footbinding started to end in China between the Boxer Rebellion of 1900 and the Revolution of 1911, certainly among the upper strata of the larger cities. Although there was local variability in onset of cessation, available evidence is that whenever binding did end, it ended rapidly. As measured by a sociologist's data, for example, the population of Tingsien, a conservative rural area 125 miles south of Peking, went from 99 percent bound in 1889 to 94 percent bound in 1899 to zero bound in 1919 (Gamble 1943).

The Chinese offered various explanations for footbinding. It was said to distinguish the Chinese from the invading Mongols and other barbarians and to enhance the difference between men and women. It was believed to promote good health and fertility (Blake 1994:686). For Chinese men, bound feet were universally associated with higher-status love and sex, and so carried strong connotations of both modesty and lasciviousness. Bound feet became a sexual fetish; they were said to be conducive to better intercourse, but this claim was medically false (Van Gulik 1961:219). The leading neo-Confucian philosopher Chu Hsi imposed footbinding on a southern province in the twelfth century so as to enforce female chastity (an apocryphal tale, according to Ebrey 1990). The historical record contains several explicit statements over the centuries that the purpose of footbinding was to hobble women

and thereby promote their seclusion and fidelity. Finally, the record is abundantly clear that the immediate explanation always given for footbinding in its heyday was to secure a proper marriage (Levy 1966).

Levy (1966) believes that footbinding originated in aesthetic appreciation of the small foot and was maintained by male erotic interest. Veblen (1934) regards it as an ostentatious display of the practicing family's wealth. Freud (1961) concludes that footbinding appeased male castration anxieties. Ebrey (1990) proposes that the practice arose in the Sung as a way of ethnically differentiating civilized Chinese from invading northern barbarians and of maintaining gender distinctions as refined Chinese males became more effeminate. Blake's "mindful-body" theory interprets footbinding as a voluntary ordeal by which mothers taught their daughters to succeed in the male-controlled neo-Confucian world, related to the intensification of agricultural labor in the period of duration (all cited in Blake 1994). Gates (1989) points to the commodification of agriculture and textile production in the Sung. Some missionaries blame flawed national character (Greenhalgh 1977). Fairbank and Feuerwerker (1986:29) attribute footbinding's generality and maintenance to homogeneous culture and peasant subservience to elite norms.

Daly (1978:130-33) links footbinding, genital mutilation, and other misogynistic practices in a patriarchal sado-ritual syndrome that is obsessed with purity, is sanctioned by tradition, and has "an inherent tendency to 'catch on' and spread, since [the rituals] appeal to imaginations conditioned by the omnipresent ideology of male domination," uses women as scapegoats and token torturers, ritualizes and "normativizes" atrocities, and is legitimated by male scholars despite appearances of disapproval. Greenhalgh (1977) ties the custom to the patriarchal Chinese family, arguing that footbinding consolidates and perpetuates the kinship system. She takes note of upward marriage, of downwardly migrating custom, of footbinding as the "essential criterion for any girl's marriageability," of the self-perpetuating character of the practice, and of the shock delivered by Western imperialism. Greenhalgh also offers an explicit theory of footbinding's end: Expanding employment

and education opportunities, improving transportation, and capitalist individualism were attracting women away from the weakened patriarchal family and to the labor market.

## INFIBULATION

FGM occurs in Egypt and in what was formerly called the Sudanic Belt in Africa (the savanna lands between the desert to the north and the jungle to the south, or between the Tropic of Cancer to the north and the Equator to the south); from the Atlantic Coast of western Africa to Egypt in the northeast and Kenya in the southeast. Infibulation, the harshest practice, occurs contiguously in Egyptian Nubia, the Sudan, Eritrea, Djibouti, and Somalia, also known as Islamic North-east Africa.

The following classification of female genital operations is paraphrased from Kouba and Muasher (1985:96):

- (1) Mild *sunna*: The pricking of the prepuce of the clitoris with a sharp instrument such as a pin, which leaves little or no damage. (*Sunna* means "tradition" in Arabic.)
- (2) Clitoridectomy/excision: The removal of part or all of the clitoris as well as part or all of the labia minora. The resulting scar tissue may be so extensive as to cover the vaginal opening.
- (3) Infibulation/Pharaonic circumcision: Clitoridectomy and the excision of the labia minora as well as the inner walls of the labia majora. The raw edges of the vulva are then sewn together with catgut or held against each other with thorns. The raw edges of the labia majora are sutured together or approximated so that the opposite sides will heal together and form a wall over the vaginal opening. A small sliver of wood is inserted into the vagina to stop coalescence of the labia majora in front of the vaginal orifice and to allow for the passage of urine and menstrual flow.

For the sake of brevity, I concentrate on infibulation.

The operation takes place from a few days after birth to before the birth of the first child (depending on local custom), but mostly

seems to be performed on girls around age eight, safely before puberty. It is usually done among women, in private, with little ceremony; only rarely does it have the trappings of an initiation rite. The girl is held down amid singing and shouting, which drown out her screams. Except recently among the affluent, the operation is inflicted without painkiller or antiseptic precaution. Then the girl lies with her legs tied together for several weeks. Urination and (later) menstruation are difficult because of the pencil-point opening left by the operation. After marriage, penetration takes two weeks to two years to accomplish, or is facilitated by knife; it is traumatically painful for the female, and some men feel guilt and revulsion at the cruelty involved. Childbirth requires incision and resewing of the genital area. Virtually every ethnography and report states that FGM is defended and transmitted by the women. The mothers who have this done to their daughters love their children and want the best for them (Assaad 1980).

Health consequences are severe. Immediate: Pain, hemorrhage, shock, acute urinary retention, urinary infection, blood poisoning (septicemia), fever, tetanus, and death. Intermediate: Delay in wound healing, pelvic infection, dysmenorrhea, cysts and abscesses, keloid scar, and painful intercourse. Late: Haematocolpos (vaginal closure and accumulation of menstrual fluid), infertility and miscarriage, recurrent urinary tract infection, difficulty in urinating, calculus and stone formation, hypersensitivity, and anal incontinence and fissure. Intercourse: Difficulty in penetration, painful intercourse, and use of misplaced deinfibulation wound as false vagina. Delivery: Prolonged and obstructed labor, hemorrhage leading to shock and death, perineal laceration, uterine inertia, and still-born or brain-damaged infants. Postnatal: Urinary and rectal fistula causing odor and miscarriages, and prolapse of uterus and adjacent organs. Sexual problems: Lack of orgasm, anxiety, depression, and frustration (summarized from headings in Koso-Thomas 1987:25–28).

The origins of FGM are obscure. Widstrand (1964:116) traces several classical references to the second century B.C.E. geographer Agatharchides of Cnidus, who, reporting on tribes residing on the western coast of

the Red Sea, wrote that one group excised their women in the manner of the Egyptians, and that another group “cut off in infancy with razors the whole portion that others circumcise” (Agatharchides 1989:111–12).<sup>3</sup> The geographic distribution of FGM suggests that it originated on the western coast of the Red Sea, where infibulation is most intense, diminishing to clitoridectomy in westward and southward radiation. Whatever the earliest origins of FGM, there is certainly an association between infibulation and slavery. The Egyptians raided and traded the Black south for slaves from dynastic to Byzantine times, and Sudanic slaves were exported through the Red Sea to the Persian Gulf before the rise of Islam (Beachey 1976: 2–4). The Islamic slave trade delivered many Sudanic concubines and maids to Egypt and Arabia.

In 1609 Dos Santos reported that inland from Mogadishu (Somalia) a group has “a custome to sew up their Females, specially their slaves being young to make them unable for conception, which makes these Slaves sell dearer, both for their chastitie, and for better confidence which their Masters put in them” (Fr. Joao dos Santos, *Ethiopia Oriental*, in Freeman-Grenville 1962). Browne, reporting in 1799 on his African travels, wrote that the Egyptians practice female excision, and that infibulation to prevent pregnancy is general among female slaves, who come from the Black south. Other early travelers to Egypt—Larrey in 1803 and Burckhardt in 1819—confirm Browne and claim that slave traders infibulated young female captives (Widstrand 1964:102).<sup>4</sup> Curiously, infibulation is called “Sudanese circumcision” by the Egyptians,

<sup>3</sup> Today’s Beja, pastoralists and recent slaveholders inhabiting the same territory, are almost certainly their direct descendants. According to Hicks (1993:215), some Beja populations excise; others infibulate.

<sup>4</sup> Widstrand speculates that the travelers were misinformed, and that instead slave traders paid a higher price for women already infibulated in their home territory. This may be true, but Browne and Burckhardt each visited the Sudan. Hicks (1993:22), relying on Cloudsley’s (1983: 112) misinterpretation of Widstrand’s speculation, mistakenly denies that an association between slavery and infibulation is established.

but "Pharaonic circumcision" (i.e., Egyptian) by the Sudanese (Kouba and Muasher 1985).

Infibulation is not only nearly universal and persistent where practiced, but is expanding its territory. It is spreading from Arabized northern Sudan further into indigenously populated areas of southern and western Sudan; as Arabized traders enter or as indigenes urbanize, the less advantaged adopt infibulation to make their daughters more marriageable to the high-status outsiders. For example, infibulation was unknown in Nyala in west Sudan 50 years ago, but it now saturates the area and is universal in Nyertete merely 20 years after introduction. Where practiced in the Sudan, FGM affects 99 percent of women; 83 percent are infibulated. Moreover, infibulation has been further exaggerated in the Sudan, beginning among educated urban dwellers and spreading to the uneducated in the villages, with the new practice of reinfibulation to pinhole size after each birth; this is quite damaging to the woman's physical integrity over time (reinfibulation is reported among 2 percent of women over age 64 and among 54 percent ages 25 to 34; among 70 percent of urban women and 28 percent of rural women) (Dareer 1982:57; Lightfoot-Klein 1989:48-49, 31, 98-99).

In Somalia, 99 percent of women are mutilated (76 percent of those are infibulated), and the infibulation rate nears 95 percent among the noble northern clans (Grassivaro-Gallo and Abdisamed 1985). Infibulation was not reported among the southern Sab at the beginning of the century, but has commenced among them. Reportedly they want to gain higher social status by emulating the noble northerners (Grassivaro-Gallo and Viviani 1992). Grassivaro-Gallo and Abdisamed (1985) conducted a large but nonrandom survey of women in the capital. According to their analysis of a subsample (parental origin and place of operation in the same region), infibulation is attenuating to clitoridectomy. However, disaggregating these data into high-infibulation regional origin and low-infibulation regional origin shows that the apparent attenuation is due simply to the inclusion of the southern Sab in the sample. Other than among respondents originating from the capital or the atypical south, the infibulation rate of sub-

ject women was 95 percent, the same as for their mothers.<sup>5</sup>

The most common explanation given by participants is that infibulation is required for marriage and honor. Infibulation prepares for marriage, is a prerequisite for marriage, makes for better marriage prospects, makes possible the security available through marriage, and so on. It fosters virginity, first, because the physical barrier prevents rape, and second, because the physical barrier and the attenuation of sexual desire protect the supposedly oversexed and promiscuous woman from temptation. It is proof of virginity and secures fidelity by reduction of female desire and by reinfibulation upon the prolonged absence of the husband. Infibulation is closely associated with the modesty code.

One common explanation, sometimes neglected due to the inquisitive bias of intellectuals, is simply that "such is the custom or tradition here." A variation on the custom explanation is that "this is a practice that distinguishes us from neighboring groups." A related explanation of FGM that is conventional among some European-educated Africanists is that the practice functions to promote the solidarity of the group. That explanation originated with Kenyatta, the functionalist Malinowski's pupil, who used British attempts to prohibit clitoridectomy among his Kikuyu as a theme of ethnic unification and nationalist agitation. Religious command is another common explanation: For many of the practitioners, tradition and religion mean one and the same thing (Boddy 1991).

FGM is found only in or adjacent to Islamic groups (some neighboring Christians practice it to avoid damnation). This is curious because FGM, beyond the mild *sunna* supposedly akin to male circumcision, is not found in most Islamic countries nor is it required by Islam. Mutilation is not practiced in Mecca or Medina, and Saudis reportedly find the custom pagan. The Koran is silent on FGM, but several *hadith* (sayings attrib-

<sup>5</sup> Of the capital residents originating from high-infibulation regions, 49 percent expect that their daughters will not be infibulated (but will be mutilated); from low-infibulation areas, 65 percent. I doubt, however, that Somali hopes will be realized short of a convention shift.

uted to Mohammed) recommend attenuating the practice for the woman's sake, praise it as noble but not commanded, or advise that female converts refrain from mutilation because even if pleasing to the husband it is painful to the wife. In Egypt, the Christian Copts follow the same practice of clitoridectomy as their Islamic neighbors; in the Sudan the tiny Coptic minority follows the same practice of infibulation as their Islamic neighbors (Cloudsley 1983). Catholic missionaries among the Egyptian Copts in the seventeenth century initially forbade clitoral excision as an allegedly Jewish practice, but male converts to Catholicism refused to marry intact women and so would return to the Coptic Church. Then a special investigation by the Vatican decreed that the oversized clitoris alleged among Egyptian women justified excision as conducive to marriage (Meinardus 1967).

The remaining explanations seem to be post hoc. Infibulation is sometimes justified as clean and aesthetic. It is said to prevent malodorous discharge; however, the prolongation of urination and menstruation and other complications make that a false belief. The judgment that natural genitals are ugly is like the old Chinese judgment that natural feet are ugly. Infibulation is also said to promote health and fertility, and to make child-bearing easier; obviously these are false beliefs. Infibulation is said to enhance male intercourse, but reports from Nubia and the Sudan indicate that men aware of the difference prefer intact or excised women to infibulated women (Boddy 1982; Lightfoot-Klein 1989:97). The story of enlarged genitals accepted by Catholic worthies with respect to the Egyptians, and by Arabs with respect to excising Africans, is medically false.

Freud (as related by Bonaparte 1953:191–92) hypothesized that FGM assists the transition from clitoral orgasm to vaginal orgasm, in other words, that FGM is a realization of his theoretical clitoridectomy. The most ambitious study to date, comparative-ethnographic in approach, agrees with the indigenous interpretation that infibulation is related to guaranteeing virginity and chastity, and with academic interpretations relating infibulation to “the requirement of virginity and chastity in societies where the honor of the family is contingent on the honor of its

women; a precaution against rape . . . ; a necessary preliminary to adult status and marriage” (Hicks 1993:181).

Infibulation seems to have attenuated to clitoridectomy in Egyptian Nubia (Kennedy 1970). Kennedy explains this change with a modernization hypothesis: As Nubians lost their land to the flooding of the Aswan dam, took up wage labor, and came into contact with urban values, along with increased education and communication, then dependence on the patrilineage decreased, the nuclear family thrived, modern egalitarian ideas were adopted, and so on. Hayes (1975:630–31) finds that the manifest function of infibulation “is to regulate female sexuality in order to safeguard virginity, thus protecting the honor of a woman's and her husband's patrilineages.” Latent functions include contributing to the village economy, maintaining the status and role of midwives, and limiting population. Building on Kennedy, Hayes predicts that industrialization and urbanization weaken the corporate nature of the lineage and that FGM then becomes less severe.

Some explanations fail the comparative test. Boddy (1982) relates Sudanese infibulation to a complex of symbols for pure, clean, and smooth (she is correct, I believe, that infibulation emphasizes female fertility by de-emphasizing female sexuality). Grassivaro-Gallo and Viviani (1992) claim that Somali infibulation is an evolutionary adaptation to make female shepherds and goatherds odorless and safe from prey. The symbolic associations of Boddy's riverine agriculturists, however, do not explain infibulation on the pastoral plains of Somalia; nor does Grassivaro-Gallo's hypothesis apply to infibulation along the Sudanese Nile. Neither theory accounts for the maintenance of infibulation among urban dwellers and educated elites.

## THE CONVENTION HYPOTHESIS

### *Conventions*

This is an account of conventions as solutions to coordination problems, as developed by Schelling (1960) and Lewis (1969). (This game-theoretic account of coordination problems assumes strategic rationality: “Rationality” means choosing what one wants more

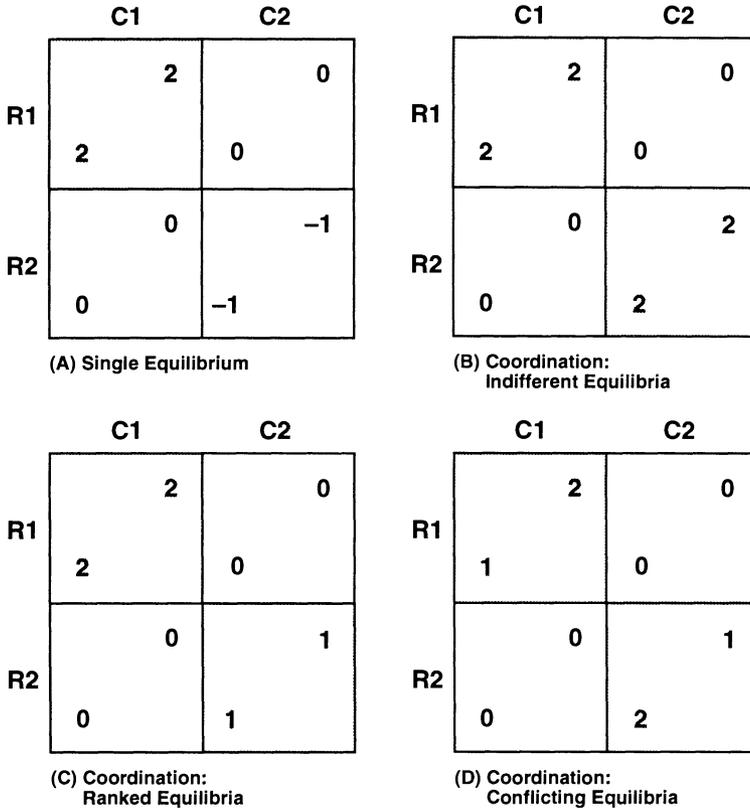


Figure 1. Game Matrices

Note: Shaded boxes indicate equilibrium choices.

over what one wants less, whether self-regarding or other-regarding, given beliefs and constraints; a “strategic” situation is one characterized by the interdependence of decisions; see Elster 1986.) Schelling said that the coordination game lies behind the stability of institutions and traditions, yet can also explain rapid change. How can the same mechanism explain both stability and change? Look at the sample coordination game in Figure 1B. (Generally for the games in Figure 1, there are two players; each player has two strategies; the lower left payoff in any box is that of player Row-Chooser, and the upper right payoff in any box is that of player Column-Chooser. Assume that the players can’t talk to each other and that they play pure strategies, not a probabilistic mixture of strategies.) In Figure 1B, Row-Chooser chooses Row 1 (R1) and Column-Chooser chooses Column 1 (C1), then they

coordinate on R1C1 and carry home a payoff of 2 each; the same is true if they coordinate on R2C2. If coordination fails—say they choose R1C2, or R2C1—then each gets nothing. The usual illustration of this is whether to drive on the left side of the road or the right. It doesn’t matter which side I drive on, so long as everyone else does the same.

Consider now the game in Figure 1A. Here, only R1C1 is an equilibrium choice. Figure 1A does not represent a coordination problem; for that, there must be at least two proper coordination equilibria, according to Lewis (1969). Figure 1B does represent a coordination problem. So does Figure 1C. In Figure 1C, R1C1 is better for each player than R2C2, and R2C2 is better for each player than the miscoordination at R1C2 or R2C1. If people are stuck at inferior equilibrium R2C2, they may lack a concerted way to move to superior equilibrium R1C1. In

this paper, I concentrate on that type of problem. Figure 1D also represents a coordination problem, but now with a bargaining aspect. Here, Column-Chooser does best at R1C1, while Row-Chooser does best at R2C2, and each likes either of these coordination equilibria better than miscoordination at R1C2 or R2C1. This game has all the ingredients of power and tragedy (Knight 1992 is the definitive treatment). *Any* game with two or more proper coordination equilibria represents a coordination problem.

Singling out a coordination equilibrium is a matter of concordant mutual expectations. If there are two of us and we can talk, then we can each promise to choose either right or left, and the promise is self-enforcing. If there are hundreds of us, however, express agreement is difficult. Many conventions suggesting a single choice of equilibrium in a coordination problem are not expressly agreed to; rather, they are tacit. Schelling (1960) urges that there is no logical solution to the tacit coordination problem; rather, solutions are suggested by their psychological salience. The salient choice is not uniquely *good*, just noticeably *unique*. It all depends on what the players believe about each other. In novel play of Game 1C, absent credible communication, superior R1C1 stands out as the salient choice for most people. But in a recurring game, precedent is strongly salient. If we played the same Game 1C yesterday at R1C1, then R1C1 is the salient choice today. If the choice made yesterday was the inferior R2C2, R2C2 is weakly salient today; and if R2C2 was the choice in our last 10 games, it is strongly salient in our next. Coordination by precedent is convention.

At 5:00 A.M., Sunday, September 22, 1967, Sweden switched from driving on the left side of the road to driving on the right (Hardin 1988; Ullman-Margalit 1977). Sweden, or at least its authorities, saw driving on the left as more like the game in 1C than the game in 1B. The rest of continental Europe drove on the right, so as international traffic increased, visitors to Sweden caused accidents by driving in the wrong lane as did nonchalant Swedes abroad. Thus Swedes would be better off driving on the right, moving from R2C2 to R1C1 in something like Game 1C. Even if the millions of Swedes were each convinced that driving on the right

would be better, they could never spontaneously, by some invisible hand, get to the better coordination equilibrium. Convention is self-enforcing: Any one person driving to the right to demonstrate its advantages would end up dead. For example, in left-driving Pakistan a local religious party decreed that the pious must drive on the right. The decree was rescinded in two weeks after a number of serious accidents (Bedi 1994).

### *Paternity Confidence*

How do the practices of footbinding and infibulation fit the convention model just described? For the explanation to succeed, one assumption must be true: that humans strongly desire to successfully raise their biological children.<sup>6</sup> The various forms of marriage and family serve this end. Females are certain of maternity, but males are not certain of paternity. In the standard premodern case, the female requires assurances of resource support for bearing and rearing children, and the male requires assurances that the children are his offspring. Because of the desire for children, each party prefers marriage to nonmarriage. Marriage is a deeply interdependent choice and is a coordination equilibrium. Families advertise their male offspring as capable of providing both generous and sustained support, and their female offspring as both fertile and faithful.<sup>7</sup>

Under conditions of resource equality, humans compete in conveying the many signs of trustworthiness to possible marriage partners. Under conditions of resource inequality, conventions of wealth and honor emerge as signs of higher rank. When the inequality of resource control reaches a certain extreme, polygyny and hypergyny appear because a female is then more likely to raise children successfully as the second wife of a high-ranking man than as the first wife of a low-ranking man. The richest families will also

<sup>6</sup> I simplify and purge of sociobiological assumptions Dickemann's (1979, 1981) brilliant argument.

<sup>7</sup> Consider, for example, the Ming Dynasty (1368–1644) saying quoted by Levy (1966): "If you care for a son, you don't go easy on his studies; if you care for a daughter, you don't go easy on her footbinding" (p. 49).

then prefer male children to female children because each polygynous son will generate more grandchildren than the equivalent daughter. The higher the male's rank, the greater the resource support he offers, the greater number of consorts he attracts, the greater his costs of fidelity control, and thus the greater the competition among female families to guarantee paternity confidence. Therefore, families will advertise the honor of their lines, the purity of their females, and their members' commitment to the values of chastity and fidelity, the so-called modesty code.

A highly polygynous apex induces an upward flow of women (hypergyny) and a downward flow of conjugal practices. If humans want to have their own children, then an emperor will take costly measures to ensure that the several thousand women he supports are sexually reserved for him, while the interests of his wives and concubines will be to seek clandestine insemination from men more available than he. It is then in the emperor's interest to inflict costly methods of fidelity control. The next lower stratum, competing to provide wives and concubines to the apex, will imitate and exaggerate the fidelity-control practice so as to gain economic, social, and reproductive access to the palace. The vacuum of women in the first lower stratum will be filled by women moving up from the second lower stratum, who in turn will adopt the fidelity-control convention, and so on, all the way down.

Local conventions of modesty emerge; footbinding in one place, infibulation in another. Under extreme polygyny and hypergyny, the conventions are most intense at the highest rank but domino down to the lowest rank that can afford the practice. Female modesty in these circumstances is a positional good (valued not for attaining a standard, but for its rank; not "excellent," but "best") and thus is driven to maximum affordable values on the conventions: "One wrong word about his sister and he'll kill you"; "The errant daughter shall die"; "The smaller the foot, the better the family"; "The smaller the infibulation opening, the better the girl's reputation." Naive observation of runaway modesty practices gives rise to the folk belief, in honor cultures, that women must be excessively lustful to necessitate

such scrupulous guarding—the "two-Marys" or "madonna-whore" complex. The false belief in enlarged genitals as the rationale for FGM is based on similar reasoning.

Mutilation is a conventional prerequisite of marriage, *originating* as a sign of paternity confidence in a game of coordination with conflict like that shown in Figure 1D. Mutilation is a superior equilibrium for the originating male emperor in terms of maximizing the number of his own children; it is an inferior equilibrium for the females under his control. A convention signifying paternity confidence was imposed at the social apex, and then hypertrophied and diffused in positional competition. Mutilation is *maintained* as the inferior equilibrium in a game of coordination with ranked equilibria like the one in Figure 1C. It is an inferior convention for the ordinary male and for his one female mate: The monogamous male has trivial fidelity-assurance costs, and both male and female could better afford children if the female's fertility, productivity, and longevity were not damaged by mutilation. For the purposes of reform it is important to realize that the ordinary male, when fully informed, may be motivated to support convention shift.

Men and women prefer marriage to non-marriage. Both men and women would be better off marrying without the mutilating practice (R1C1), but they are trapped by the inferior convention (R2C2). However the custom originated, as soon as women believed that men would not marry an un mutilated woman, and men believed that an un mutilated woman would not be a faithful partner in marriage, and so forth, expectations were mutually concordant and a self-enforcing convention was locked in. A woman would not choose nonmarriage and not to have her own children; a man would not choose an unfaithful partner and not to have his own children.

### *Imperial Female Slavery*

FGM is pre-Islamic but was exaggerated by its intersection with the Islamic modesty code of family honor, female purity, virginity, chastity, fidelity, and seclusion. I propose that imperial polygyny in Arabia and Egypt, and indirectly in Istanbul, induced an eastward flow of female slaves through the mainly po-

lygynous Sudanic Belt into infibulating slave centers in Sudan and a westward flow of Islamization and FGM. Arabized pastoralists raided northeastern Africa for slaves, and, because Islam forbade the enslavement of Moslems, ventured further as closer sources converted. The Sudanic slaves were shipped down Nile Valley routes or through the Red Sea to Egyptian or Arabian markets. The distribution of infibulation in Sudan in the nineteenth century, by far the peak period of slaving (almost one-half million were exported by way of the Red Sea, [Clarence-Smith 1989:5]), follows the caravan routes (Hicks 1993:21–23). Slave raiding and slave concubinage continue in today's Sudan (U.S. Department of State 1994:285). The further radiation of clitoridectomy follows the channel of raiding and trading west to the Atlantic and southeast to Kenya. A practice associated with shameful female slavery came to stand for honor. Since defenders of infibulation regard the uninfibulated as no better than contemptible slaves, demonstrating its origin in the slave trade might contribute to its eradication.

Hereditary stratification decreased in "egalitarian" Sung China (Ebrey 1991), but wealth stratification increased with strong urbanization (Ma 1971:144). Commercialization probably decreased the relative price of female labor in agriculture, outdoor work, and increased its price in indoor work, such as commodity textile production, household services, and male entertainment. In the China of female infanticide, poor and middle-range families in the southern Sung capital preferred female children because of their bright prospects as concubines and maids for rich families (Ma 1971:143). Perhaps footbinding arose as a slave traders' restraint on girl children; its obvious purpose was to keep them from running away. Then, nubile courtesans adapted dance performance to the restraint. The eleventh-century poet wrote, "Anointed with fragrance, she takes lotus steps;/ Though often sad, she steps with swift lightness" (Levy 1966:47). Why is she sad? Because she remembers her impoverished freedom in her prosperous imprisonment? The imperial capitals contained not only the thousands of concubines, dancers, and servants of the emperor, but also an upper class serviced by additional legions of

concubines, courtesans, and housemaids as well as government-owned brothels for low-ranking officers and soldiers (Van Gulik 1961:212–35). The many women of the emperor and of other officials no doubt needed guarding against escape, trysts, rape, and bastardy. Initial adoption of footbinding by the imperial seraglio may have had a secondary aesthetic aspect, but the fidelity-control aspect must have been primary. Notice as well that footbinding made it harder for barbarian raiders to steal the palace women because they would have had to be carried rather than driven.

### *Belief Traps*

The women who practice infibulation are caught in a belief trap. The Bambara of Mali believe that the clitoris will kill a man if it comes in contact with the penis during intercourse. In Nigeria, some groups believe that a baby will die if its head touches the clitoris during delivery (Lightfoot-Klein 1989:38–9). I call these self-enforcing beliefs: a belief that cannot be revised because the believed costs of testing the belief are too high. Koso-Thomas (1987) interviewed 50 women in Sierra Leone who had known sexual experience before clitoridectomy. All reported decreased sexual satisfaction after the operation, but they were unaware of the causal relationship until informed by the interviewer. Ironically, some of these women had become promiscuous in their search for lost satisfaction. Lightfoot-Klein's (1989:22, 59) initial interviews with Sudanese women elicited the response, for example, that urination was "normal." She then switched to more descriptive questions such as "How long does it take you to urinate?" The answer then was "Normal—about 15 minutes."

The painful surgery, prolonged urination and menstruation, traumatic penetration, and unbearable childbirth accompanying infibulation are all accepted as normal. Because it is inflicted on all girls before puberty they have no basis of comparison; the connection between cause and effect is remote; and the cost of testing pertinent beliefs is prohibitive to any one individual. Once in place, conventions regulating access to reproduction are deeply entrenched, in part because dissenters fail to have descendants. Adult-to-child

transmission augments persistence. One consequence of a culturally insulated group's becoming stuck in an inferior convention is that as the period of origination passes, knowledge of the superior coordination equilibrium disappears, as if the northwest quadrant of the matrix in Figure 1C were to fade away. Exposure to an alternative convention is a necessary but not sufficient condition for convention shift. Such exposure may have contributed to the abandonment of Chinese footbinding.

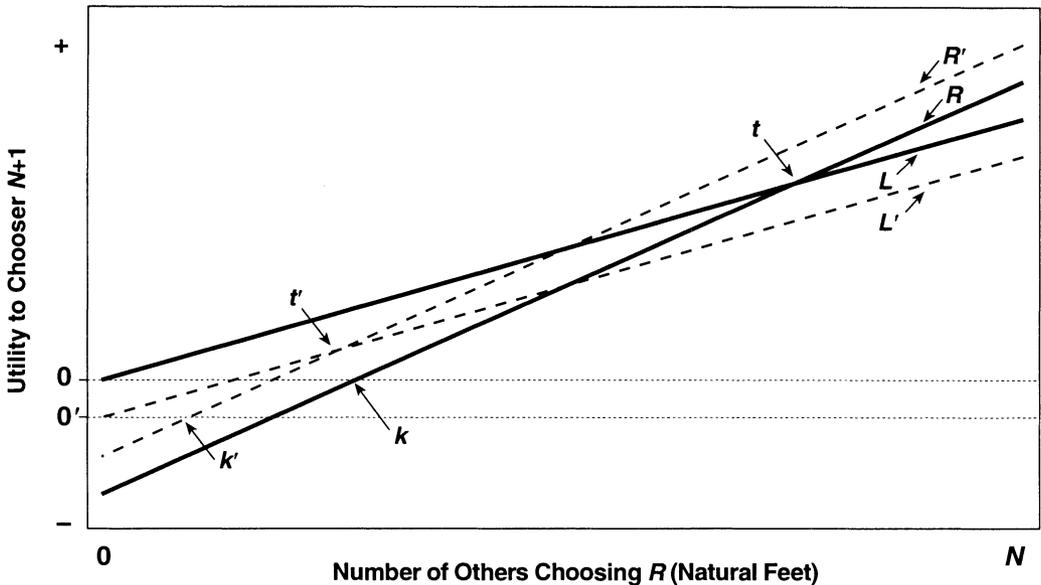
### *Evaluation*

By making three assumptions—that people are strategically rational, that people desire to successfully raise their own children, and in each case that there was an originating condition of imperial female slavery—I have been able to show why female mutilation is a self-enforcing convention, nearly universal where practiced, persistent, and practiced even by those who oppose it; why it is necessary for a proper marriage; and why it is such an obviously compelling tradition to practitioners. That the convention is universal within overlapping marriage markets explains why distinct ethnic minorities may not conform and why practitioners later come to regard it as an ethnic marker. The fact that overlapping marriage markets are initially hypergynous, and the consequent positional competition, explain contagious diffusion, exaggeration over time, and status grading. The men who perpetrate female enslavements and mutilations are not absolved under this hypothesis; but, as Ortner (1978:32) discerns, the resulting hypergynous competition explains why women as well as men actively perpetuate the honor and modesty code, and resolves a major puzzle. Moreover, the convention hypothesis explains how incentives to conform linger after originating conditions have faded. The belief that mutilation is excellent for health and fertility is self-enforcing, a trap. Similarly, the tales of aesthetic appreciation, sexual pleasure, and gender complementarity are associationist folk explanations.

Freudian theory offers two disparate mechanisms that explain nothing about the details or correspondences of infibulation and footbinding. The missionaries' flawed-national-

character explanation (still alive in some of the denunciations of FGM) neglects references to honor and modesty, practice by opposing families, and especially the end of footbinding. Otherwise, alternative theories are not so much conflicting as incomplete. The aesthetic interest, erotic interest, and ostentation theories each explain only a few of the observations, and especially fail at accounting for local universality, persistence, and practice by opposing families. The ethnic differentiation theory is consistent with the observations except for references to controlling sexual access to females, practice by opposing families, and the end of footbinding. Fairbank and Feuerwerker's (1986) appeal to cultural homogeneity and compliance with elite norms explains contagion, local universality, and stubborn persistence as well as references to tradition, ethnicity and status; but the convention hypothesis explains their homogeneity and norm compliance, and explains sudden change.

Blake (1994) carefully recounts the observed facts on footbinding, and his complicated theory that (among other things) it functioned to obscure the labor power of women accounts for the major observations. Blake detects a puzzling conflict between the strict Confucian norm against mutilation of the body and the widespread norm of mutilating women's feet. Those norms are consistent under the convention account, however, because each was justified in terms of promoting fertility. He surveys the relation between the duration of the patrilineal family and hobbling, on the one hand, and the changing demand for female labor, on the other, but characterizes that relation equivocally. With one exception, the convention hypothesis is the only theory that shows how mutilation could be practiced by those who oppose it and that explains and predicts change. The exception is the theory that the patrilineage rises and falls with economic conditions. The patrilineage theory, however, does not explain the absence of mutilation under similar economic and family conditions elsewhere. Functionalism explains everything but change, which may be why this theory is found linked with the patrilineage theory; functional stability disrupted by modernization covers the observations but is vague on origins and on variations.



**Figure 2. Schelling Coordination Diagram for Chinese Footbinding**

*Note:*  $L$  = utility of choice resulting in an inferior equilibrium (footbinding);  $R$  = utility of choice resulting in a superior equilibrium (natural feet);  $L'$  = utility of footbinding after hearing of its disadvantages;  $R'$  = utility of natural feet after hearing of its advantages;  $k$  = minimum number of people required to be better off together choosing natural feet;  $k'$  = new smaller  $k$  resulting from a successful propaganda campaign;  $t$  = Point at which marriage market tips to either footbinding or to natural feet;  $t'$  = new tipping point resulting from a successful propaganda campaign;  $0$  = arbitrary zero value of inferior equilibrium (footbinding);  $0'$  = arbitrary zero value of footbinding after hearing of its disadvantage.

Daly's (1978) inductively constructed patriarchal sado-ritual syndrome accounts for most observations, but not for variations in the presence and type of mutilation under a universal patriarchy. The sudden end of footbinding before the end of male domination she assigns to the similarly malicious category of patriarchal "reversal." Dicke-mann's (1981) paternity confidence theory is comprehensive but does not, as does the convention hypothesis, explain endurance beyond originating conditions or the rapid demise of such practices. The strength of the convention hypothesis is in explaining the end of footbinding, thereby disclosing tactics for the eradication of FGM.

### ESCAPING INFERIOR CONVENTIONS

The work of the antfootbinding reformers had three aspects (Drucker 1981; Levy 1966: 74–88). First, they carried out a modern education campaign, which explained that the rest of the world did not bind women's feet—

that China was losing face in the world and was subject to international ridicule. Second, their education campaign explained the advantages of natural feet and the disadvantages of bound feet. Third, they formed natural-foot societies, whose members pledged not to bind their daughters' feet nor to let their sons marry women with bound feet. These three tactics are appropriate for escaping an inferior convention. I will illustrate with a Schelling diagram (see Figure 2).

The Schelling coordination diagram is a way of visualizing a many-person version of the two-person coordination game in Figure 1C. Suppose a reference population of  $n+1$  homogeneous individuals in a marriage market. The vertical axis represents higher or lower value to the typical chooser. The horizontal axis runs from zero other people on the left to  $n$  other people on the right. In this particular application, one curve,  $L$ , represents the choice resulting in an inferior equilibrium (footbinding); it starts at an arbitrary zero value on the left and rises to the right.  $L$

slopes down to the left because the greater the proportion of people who footbind, the less is footbinding a positional advantage in securing marriage. A second curve,  $R$ , represents the choice resulting in a superior equilibrium (natural feet); it starts below  $L$  on the left, intersects  $L$ , and ends above  $L$  on the right.  $R$  slopes up to the right because the greater the number of potential marriage partners, the better the individual's marriage match.<sup>8</sup> The point  $n/3$  along the horizontal axis would represent the value to individual  $n+1$  of choosing  $L$  or  $R$  when one-third of the others choose  $R$  and two-thirds of them choose  $L$ . There are two equilibria: the inferior, where everyone chooses  $L$  (where  $L$  meets the left vertical axis), and the superior, where everyone chooses  $R$  (where  $R$  meets the right vertical axis). If we are stuck at  $L$ , the footbinding equilibrium, how can we get to  $R$ , the natural feet equilibrium? Schelling (1978, chap. 7) calls the process "getting over the hump" and "beyond the intersection."

The reformers' campaign stressed that China was alone in the world in binding female feet. This provides an escape from the belief trap, a realization that the superior convention  $R$  (right) is available. Next, if everybody is choosing  $L$  (left), footbinding, then notice in the diagram that there is some number  $k$  of us who would be better off choosing natural feet. The critical number  $k$  is reached where the rising  $R$  curve attains the elevation of the left extremity of the  $L$  curve (an arbitrary zero in the diagram). Thus, if  $k$  or more of us can organize into an antfootbinding association, pledging not to footbind daughters nor let sons marry footbound women, we are better off; beyond this threshold, the advantages of natural feet outweigh the disadvantages of a smaller mate-selection pool. The initial  $k$  formations were enforced by public pledge within church fellowships, and the proven technique then was borrowed and spread by nonchurch reformers. Reneging on a public pledge is damaging to family honor, and any temptation to renege disappears upon reaching  $k$ : Getting to  $k$  is getting over the hump.

Next, notice where  $L$  intersects  $R$ , labeled  $t$ . This is the tipping point. Any number of choosers to the left of this point drives the marriage market (with the exception of any *organized*  $k$ ) to the equilibrium of all footbinding. Any number of choosers to the right of this point drives individuals to the equilibrium of all natural feet. If we get just to the right of the intersection  $t$ , we will tip all the way to the superior equilibrium on the right vertical axis.

There is some minimum number  $k$  of us who benefit from getting together on the practice of natural feet, even at the cost of fewer potential marriage partners to choose from. Suppose that it's fairly easy to get the requisite  $k$  together, but much harder to organize the  $t$  people we need to tip the equilibrium (the situation is such that  $k$  is small and  $t$  is large). What else can we do? We should recruit more members to our antfootbinding association because each new member above  $k$  benefits every individual member of the association. Also, we should conduct an education and propaganda campaign on the disadvantages of footbinding and on the advantages of natural feet. To the extent our campaign is successful, people come to value footbinding less and natural feet more, even though they are still stuck at the inferior equilibrium: The  $L$  curve shifts down and right to  $L'$ , the  $R$  curve shifts up and left to  $R'$ . One result of our information campaign is a new  $k'$ , smaller than the old  $k$ , so fewer people are needed for an effective antfootbinding association. Another result is a new  $t'$ , smaller than the old  $t$ , so fewer people are needed to tip the marriage market into the superior equilibrium. The way I have constructed the diagram,  $t'$  is less than  $k$ ; thus, we are beyond the intersection and so achieve the superior equilibrium. To reiterate: First,  $k$  organizes; second,  $k$  propagandizes; third, if the propaganda is successful the tipping point  $t'$  becomes less than the  $k$  already organized; thus, fourth, the entire marriage market tips to the superior equilibrium.

I have given a temporal interpretation to Figure 2. The diagram can also be interpreted to represent heterogeneity.  $R'$  and  $L'$  could represent the preferences of those who have come to believe that footbinding is worse than the average person thinks it is, while  $R$  and  $L$  represent the beliefs of the average person. A

<sup>8</sup> Ross and Sotomayor (1990) demonstrate that, for any individual, a larger marriage pool is never worse and may (often) be better than a smaller marriage pool.

small cadre of fanatics, who think that foot-binding is extremely evil, can organize at the smaller  $k'$ , and their successful proselytization can then accrete  $k'$  and erode  $t$ . Also, marriage markets tend to be local but overlapping. Suppose that some local marriage markets complete their tipping to natural feet. Their overlapping membership in other untipped local marriage markets may then compose sufficient  $k$  and  $t$  to tip some of those other markets, and so on. The global collection of overlapping local marriage markets will follow a logic of change similar to that of a local marriage market.

An analogy may ease comprehension of the model. For originating circumstances, imagine a seated audience where the tallest people have grabbed the front row. The view of the tallest (extreme polygynists) in the front row is obscured by being too close to the elevated stage, so they stand (footbind). Thus the second, third, and all the rest of the rows must stand to regain their views of the stage. The front row is better off, but everyone else is worse off because their view is no better than before, but now they incur the cost of standing. (Behind the first row the advantage of tallness is accentuated by standing, but the tall still would rather sit if enough other people would do so). For maintaining circumstances represented in Figure 2, imagine that over time the tallest drift away from the audience and that the ease of sitting (natural feet) is forgotten. Standing is now entrenched as the convention. Visitors tell people that elsewhere audiences sit. People begin to think that sitting might be better, but only if enough other people sit; any one person sitting alone gets no view of the stage (reproductive death). If a column ( $k$ ) can be organized to sit, its members suffer a poor view of the stage but are compensated by the ease of sitting. The members of  $k$  then have two incentives, to recruit the contiguous columns and to inform everyone that sitting is better and that standing is worse than people thought.

As I have drawn it, both the reforming association and the education campaign were necessary for the reform. In an easier situation, education alone might suffice. New information shows that  $L$  is extremely disadvantageous and that  $R$  is extremely advantageous; the  $L$  curve shifts down and right and

the  $R$  curve up and left so that now the left beginning of the  $R'$  curve is above the left beginning of the  $L'$  curve. After effective education the population spontaneously chooses all  $R$ . This is an optimistic analysis, however. It is like an outsider coming along and saying, "Don't you people know that sitting is better than standing?" To which the insiders can reply, "Maybe, maybe not, but we're all standers around here, and sitting wouldn't work." To the extent that people depend on others for the evaluation of information, a sort of suboptimal belief equilibrium might persist. Practically, reforming associations might still be recommended because of their frequency and demonstration effects (whereby a noticeable number of people make the change without suffering harm).

The natural-foot movement was identified with liberal modernizers and women's rights advocates and proceeded in the years of change culminating in the Revolution of 1911. It would be reasonable to consider the reform as part of a wave of modernization. Urban economic development encourages migration from the countryside and provides alternative opportunities of support for women (and young men). Each effect weakens the traditional family, but strengthens the independence and bargaining power of women, and so on.<sup>9</sup> But marriage modernization is standardly supposed to have occurred after 1949, while even dissidents from the standard view trace it no further back than the 1930s (Zang 1993). Zang's 1982–1983 urban survey data demonstrate modernization phenomena: 54 percent parental arrangement of mate choice for those married in 1900–1938, 31 percent in 1946–1949, 20 percent in 1950–1953, and 1 percent in 1977–1982; and median bride age increased, proportion of nuclear families increased slightly, and proportion of stem families and joint families decreased slightly from 1900–1938 to 1977–1982.

Contrast the relative lateness, gradualness, and incompleteness of those urban family modernization trends with the earliness, suddenness, and completeness of the end of footbinding in urban China (1895–1912). I believe that exposure to a specific superior

<sup>9</sup> On Chinese marriage modernization generally, see Croll (1981, chap.7).

alien convention and the specific innovation of the 1895 organization and education campaign, rather than any generalized modernizing trend, were responsible for the reform.<sup>10</sup> Doolittle (1865) reported that early modernization was intensifying the practice: "It is believed that, were it not for the poverty of the people, all the females would in a generation or two have small feet" (p. 201). Why would footbinding come to an end just as it became more affordable?

Kennedy (1970) and Hayes (1975) predict that infibulation will come to an end with increasing modernization. I have two objections to the modernization hypothesis. First, Kennedy's infibulating Nubians who began to circulate in Egyptian society did not abandon FGM but merely adopted the clitoridectomy of the more numerous and more pros-

<sup>10</sup> Shortly before this article went to press, Gates (forthcoming) provided me with some of her work in progress: Original survey data and a theory on the differential distribution and disappearance of footbinding in China. Some of her observations support parts of my argument, for example, that footbinding was necessary to a proper marriage and that wherever footbinding ended, it ended rapidly. Gates's respondents almost never report having received any direct antifootbinding propaganda, however, and thus she believes it is unlikely that the reforming associations had much to do with cessation. Gates argues, therefore, that the convention hypothesis is unsupported, except perhaps among elite or urban populations. Gates shows that the local proportion of women bound was higher where the work available to females could be done with bound feet (e.g., household textile production). Footbinding declined, according to Gates, as the cheaper products of modern industry displaced the products of female household labor.

My view is that Gates's data and parts of her theory complement rather than contradict the convention hypothesis. There is evidence in her work for indirect influence of reforming associations and elite practices on the rural masses. The convention hypothesis recognizes the trade-off between higher marital status and family need for heavy labor that Gates confirms was explicitly discussed in families. Gates takes note of the peculiarity of the permanent disappearance of footbinding as compared to uneven changes in other gender customs. Finally, the fact that FGM is less of a hindrance to female labor than was footbinding may have implications for reform policy. Full discussion of these intriguing issues must await another occasion.

perous Egyptians around them, just as immigrant Egyptian Copts adopted infibulation in urban Sudan (Cloudsley 1983). Second, as we have seen, in the Sudan modernization is accompanied by an increase in both the demographic expanse and the physical intensity of infibulation; similarly, in Somalia infibulation has increased with development.

The success of the tactics of the antifootbinding societies supports the hypothesis that footbinding was a self-enforcing convention. What evidence is there that infibulation is as well? Educated Sudanese men and women interviewed by Lightfoot-Klein (1989:99) blamed the other sex for perpetuating reinfibulation. Similarly, educated respondents in Somalia told Grassivaro-Gallo and Abdissamed (1985:317) that their spouses were responsible for inflicting infibulation on their daughters. Their data also show that the type and frequency of FGM are predicted by region of present residence, not by the birthplace of the mother or father; this finding suggests that local marriage-market calculations prevail over simple conformist transmission. In the northern Sudan village on the Nile studied by Boddy (1982:685), the local marriage convention had shifted from infibulation to excision around 1969. This was disclosed by the existence of a cohort of unmarried infibulated women whose younger, excised sisters and cousins had married. Abdalla's (1982) survey in 1980 of 70 Somali female and 40 male university students revealed that 60 percent of the women and 58 percent of the men believed that FGM should be abolished, although 66 percent of women and 50 percent of men planned to mutilate their daughters. Thus a majority (acting collectively) would abolish the practice, while a majority (acting individually) would inflict it on their daughters. This is a sure sign of being trapped in an inferior convention. As Abdalla (1982:94-95) puts it, "No one dares to be the first to abandon it."

## CONCLUSIONS AND RECOMMENDATIONS

Colonial efforts to outlaw FGM in the Sudan and Kenya sparked political reaction. More recent international and national efforts to discourage or prohibit it have had no apparent effect. Only two instances of recession

are known, according to Lightfoot-Klein (1989:50–51); both are doubtful on closer examination (see Brooks 1995; Megafu 1983). Lightfoot-Klein reports that infibulation is being *introduced* in parts of Uganda as an imagined return to African traditions. Legal prohibition has not worked. The consensus approach to eradication is to publicize the objectively bad consequences of female mutilation (initiatives are summarized in Hosken 1993:390–418).

Infibulation is an absolutely necessary precondition to marriage in the Sudan, according to Gruenbaum (1982), who continues that policy recommendations “have seldom recognized the significance of linkage between the operations and the social goal of maintaining the reputations and marriageability of daughters in a strongly patriarchal society” (p. 5). Testimony of an Islamic scholar that infibulation is not religiously commanded, or promoting greater awareness of medical hazards, “would not be sufficient for a mother to risk her daughter’s marriageability” (p. 7) because of the importance of marriage and children. Gruenbaum recommends increased employment and educational opportunities to promote the independence of women.

The convention hypothesis predicts that if a convention ends, it will end quickly. The sudden end of footbinding in response to abolition campaigns supports the convention hypothesis and predicts that equivalent African campaigns could help end FGM. The convention hypothesis recommends three types of action. First, let people know the physiological facts, explaining to women and men the advantages of natural genitals and the disadvantages of mutilation. An education campaign is a banally obvious measure. What is not so obvious is that an ultimately successful education campaign may not have any behavioral effects until the moment of convention shift. Knowing that we are at an inferior coordination equilibrium is necessary but not sufficient for change. We may each come to believe that sitting is better than standing, but only if enough others make the change at the same time. Reformers and their funders should therefore measure progress by attitudinal rather than behavioral change.

Second, international public opinion should deplore the bad health consequences

of FGM, and such judgment should be conveyed tactfully to practicing populations. Some African nationalists and cultural relativists claim that FGM is a matter to be worked out by African women.<sup>11</sup> This is so, but in the Chinese case, indigenous reformers were more helped by the exposure to an alternative convention and by international condemnation of footbinding as wrong than they were hindered by the obtuse xenophobia of some of the Western reformers. The followers of mutilation are good people who love their children; any campaign that insinuates otherwise is doomed to provoke defensive reaction. Because these parents love their children, they will be motivated to change, once they learn of the bad health consequences of FGM, and once a way to change is found. FGM will end sooner or later; better that it ends sooner than later.<sup>12</sup> Outside opposition to mutilation, whether from various feminist groups or now by American human rights policy, will have an eventual effect, and thus is worthwhile.

Third, associations of parents who pledge not to infibulate their daughters nor let their sons marry infibulated women may, as in China, decisively lead to change. Tribal facial scarring is common in the Sudan, but is in disrepute among westernized youths in the capital. Why then is infibulation not in disrepute? One of Lightfoot-Klein’s (1989: 49, 116) respondents explained that if you give up scarring you lose your beauty, but to give up infibulation is to become shameful. Losing your beauty is sad, but losing your honor is unthinkable. Scarring is on the wane, I think, because it is part of an “average opinion game” (Van Huyck, Battalio, and Beil 1991): Faces are visible, and international images enlarge the reference group. Infibulation is invisible, however, and is also a matter of honor, a positional good unamenable to compromise. Honor depends

<sup>11</sup> See, for example, Dawit and Mekuria (1993): “A media campaign in the West will not stop genital mutilation” (p. A27).

<sup>12</sup> One self-fulfilling reform tactic might be to warn parents to wait because future convention shifts may make their irreversibly mutilated daughters unmarriageable. The failure of such a tactic would deepen the convention trap, however.

on local marriage markets, not on international images.

Pledge associations might be even more important in Africa than in China because the public invisibility of FGM makes it harder for people to judge any change in the expectations of others; they are less sure of where they are on the Schelling diagram (Figure 2) I drew to describe the end of footbinding. The technique of pledge associations is not reported in the FGM literature, and explaining its potential is intended as the central contribution of this article.

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