

# Making Men of Them: Male Socialization for Warfare and Combative Sports

**Garry Chick**

*Leisure Studies Program, The Pennsylvania State University, 201 Mateer Building, University Park, PA 16802; gchick@psu.edu*

**John W. Loy**

*1791 South Road, Kingston, RI 02881; johnloy@aol.com*

*The debate over whether violence and aggressive behavior is innate or learned has been rekindled by several recent publications. Regardless of the merits of this debate, cross-cultural data indicate that the levels of both inter- and intra-group aggressive behavior differ among societies. Moreover, males in some societies exhibit what has been termed "hypermasculine" behavior. This behavior is characterized by high levels of physical aggression as well as other markers, such as excessive use of alcohol or other drugs, destructiveness, and general belligerence. In this paper, we examine the relationships among socialization for aggression, fortitude, and competitiveness among boys and adolescent males and several indicators of a masculinist ideology. We do the same for the socialization variables and several hypermasculine behaviors.*

## 1. INTRODUCTION

The last several years have seen the publication of several books and numerous articles that address the human propensity for violence and aggression. The apparent increase in research on violence is probably due, at least in part, to the seemingly incessant inter group hostilities in many areas around the world but also the frightening and sometimes deadly intra group conflict as has taken place in schools in America and elsewhere. Recent inquiries address male violence and aggression in various manifestations, including warfare, homicide, rape, and domestic violence. In the main, authors have examined these forms of violence from perspectives framed substantially by the old nature-nurture controversy. That is, violence and aggression are seen as innate and evolved characteristics of humans, especially among males (e.g., Ghiglieri 1999; Low 2000; Wrangham and Peterson 1996; Thornhill and Palmer 2000a, 2000b), or as the result of social learning (e.g., Ehrenreich 1997; Keely 1996; O'Connell 1989).

The argument is an old one. In 1935, Margaret Mead published, *Sex and Temperament in Three Primitive Societies*, her landmark study of gender roles among the Arapesh, the Mundugumor, and the Tchambuli of New Guinea. Mead described the three societies as having three widely variant sorts of gender roles. Among the Arapesh, men and women had similar roles and were cooperative, unaggressive, and sensitive. Among the Mundugumor, on the other hand, Mead described both men and women as uncooperative, aggressive, and insensitive to others. Finally, Mead described Tchambuli women as economically and politically dominant and responsible while men were submissive. Women were economically

productive, political leaders, and engaged in warfare while men stayed home with the children. So, by American standards, both males and females among the Arapesh could be described as “feminine” while both could be described as “masculine” among the Mundugumor. The Tchambuli were opposite from what American culture dictated, with men being feminine and women being masculine. Mead’s position suggests that she believed that men’s and women’s gender roles are highly plastic and that differences in cultural standards and socialization practices can lead to gender role practices completely at odds with what we in the West would regard as “natural.” She indicated that: “We are forced to conclude that human nature is almost unbelievably malleable, responding accurately and contrastingly to contrasting cultural conditions” (1935:280).

However, Gewertz (1981) restudied the Tchambuli during the 1970s and found that Mead’s characterization of feminine males and masculine females was not accurate. In fact, Chambri (as they call themselves) men are aggressive and Chambri females are submissive. Gewertz claimed that Mead had studied the Chambri during a transitional time for them, in the 1930s, when they had been defeated and driven from their homes by an enemy tribe. What Mead had observed was Chambri men working around domestic camps, rebuilding houses, engaged in ritual, and doing artistic work. Mead had assumed that this was typical activity for them when, in fact, it was not. To be fair, Mead later expressed the belief that gender role variability is constrained by the physiological differences between men and women (Brown 1991).

Despite the efforts of Mead and other cultural determinists to show that gender roles are highly malleable, ethnographic evidence suggests that men everywhere are pretty much like what they are expected to be in the United States. On average, men are more aggressive, more domineering, more violent, more competitive, less caring, and less sensitive to others than women (see, e.g., Brown 1991; Segall et al. 1990; Ghiglieri 1999). Still, whether one favors an evolutionary, biological perspective or an approach based on social learning, individuals and groups appear to differ both intra- and inter-culturally in terms of their propensity for aggression and violent behavior. All humans belong to the same species and no compelling evidence indicates that observed differences in levels of aggressive behavior between members of different cultures are due to biology. Such differences almost certainly depend on the environment, including social learning in the form of socialization of children and adolescents. The purpose of this paper is to examine cross-culturally the relationship between the inculcation of aggression in late childhood and adolescence and several forms of aggressive and violent behavior among adults.

## **2. Hypermasculinity**

Some men, in some societies, and under some conditions, exhibit extreme forms of stereotypic male behavior that often has been termed “hypermasculinity,” but is also known as “protest masculinity,” and “compensatory masculinity.” Broude (1990:103), for instance,

describes the protest masculinity profile as involving high levels of physical aggression, as well as “destructiveness, low tolerance for delay of gratification, crime, drinking, and similar dispositions.” Pleck, Sonenstein, and Ku (1994) relate school problems, substance abuse, delinquency, and sexual activity among adolescent males in the US to what they term “masculinity ideology.”

Pleck, Sonenstein, and Ku (1994) discuss three basic perspectives on the development of the male role and how that development may lead to problem behaviors in males. These include (1) male sex role identity, (2) trait masculinity, and (3) social role analysis. Male sex role identity theory proposes that “persons have an intrinsic developmental need or imperative to develop gender role identity, which ... is directly expressed through possession of the traits, attitudes, and interests typical for one’ sex” (Pleck et al. 1994:166). However, young males may fail to acquire their gender role identity due to a relative absence of male role models and by factors such as feminized environments in schools and the changing role of females in society (Pleck et al. 1994). Hence, male gender role identity formation is at risk and the ensuing insecurity may be expressed through hypermasculine behavior, including aggression, violence, and delinquency. According to Toby (1966:20), “Much of the exaggerated roughness and toughness of preadolescent and adolescent boys should be understood ... as the result of unconscious needs to repudiate a natural identification with their mothers.” According to Pleck et al. (1994), research based on male sex role identity often focused on father absence, rather than directly on measures of male identity, as father absence was regarded as the prime factor leading to an insecure identity. The theory of male sex role identity has lost favor in recent years as gender identity (i.e., knowing that you are male or female) has been separated from gender roles (i.e., personality and other traits culturally defined as masculine or feminine) (Pleck et al. 1994).

The trait masculinity perspective began as conceptually related to male gender identity theory and developed from the introduction of research on masculinity-femininity (M-F). M-F scales were developed during the 1930s and were understood to indicate gender identity: high scores on an M-F scale indicated that a male had been successful in acquiring male gender role identity (Pleck et al. 1994). Later, rather than M-F being conceptualized as unidimensional, it became conceived as two-dimensional, with male trait masculinity seen as distinctive from female trait masculinity. Hence, individual scores could vary on M and F somewhat independently and being high on both was seen to correlate with certain positive characters, such as self-esteem (Pleck et al. 1994:169). Later still, both M and F were conceptualized as having positive and negative aspects; problem behavior among males could be interpreted as due to elevated M- (or “negative masculinity) scores (Pleck et al. 1994).

Social role analysis is a social constructionist perspective wherein societies are presumed to contain cultural definitions of masculinity (Pleck et al. 1994). Hence, though they may be officially disapproved, many Western societies hold that engaging in certain kinds of behaviors validate masculine identity. Indeed, the fact that these behaviors, which may include engaging in premarital sex, alcohol and drug use, vandalism, and so on, are disapproved is itself a major factor in their value as validators of masculine identity. Pleck et al. (1994:170) indicate that,

for social role analysis to be of research value, “social expectations and male culture require translation into a concept that describes the individual male’s acceptance of the definition of masculinity, and his internalization of the male culture, of his society.” They propose the term “masculinity ideology.” They do not view this as a personality trait, as such, but as an ideology, or set of beliefs and expectations about what men are supposed to be like and how they should behave (Pleck et al. 1994:170). From this perspective, male problem behavior is not because individuals are high in the negative masculinity trait, “but that they believe in a particular (traditional) conception of masculinity” (Pleck et al. 1994:171).

Similar theories have been proposed and tested in the cross-cultural literature in order to explain hypermasculinity. Broude (1990) notes that cross-cultural researchers, especially J. W. M. Whiting and his associates, have focused on the status-envy theory of sex identity acquisition. According to this perspective, hypermasculine behavior is due to child socialization conditions that result in feminine identification being primary among boys while masculine identification is secondary. In his later work, Whiting viewed the controllers of valued resources as those who are envied, with status envy leading to identification with the person envied (Broude 1990). If boys understand women to have control of valued resources, they will come to identify with females. But, when later they learn that men actually control resources, they will face a sex identity conflict. According to Whiting and Whiting (1975), they then may engage in hypermasculine behaviors in order to resolve the conflict. Father-absence is often used as a variable to measure of status envy in that young boys are presumed to be likely to see females as in control of valuable resources in the absence of men. Broude (1990) also notes that psychologically oriented researchers commonly posit a more direct influence of father-absence on hypermasculinity. This view holds that the absence of fathers, who would provide appropriate male role models, impedes the development of sex identity and sex typed behaviors in boys. Regardless of how father-absence is implicated in hypermasculinity, there is good evidence to show that the absence of a male role model will result in sex identity problems for boys and, possibly, hypermasculine behavior styles, in adolescent and adult males (Broude 1990).

In her paper, Broude (1990) set out to test, using cross-cultural data, whether father-absence is indeed related to hypermasculinity and, if so, to see why. In particular, she examined the status-envy theory. She developed a measure of protest masculinity (hypermasculinity) based on several existing scales that relate to the concept. These had been developed by Slater and Slater (1965) and Bacon et al. (1963). From these scales, she selected measures of “(1) pursuit of military glory; (2) pugnacity; (3) boasting; (4) sensitivity to narcissistic wounds; (5) frequency of theft; (6) frequency of personal crime; and (7) frequency of property crime” (Broude 1990:110). She used Barry and Paxton’s (1971) Role of Father scale as a measure of the closeness of fathers to children. Her results indicate that father-absence is related to hypermasculinity. Broude then ran Barry, Josephson, Lauer, and Marshall’s (1976) socialization for aggression scale against her measure of hypermasculinity and found a significant relationship for both early and late childhood. Though she never tested it directly, her results suggest that the status-envy hypothesis is not compelling. Broude (1990) notes that “The evidence that has been presented here argues in support of the proposition that high

levels of sex-typed behavior in adult males are high related to the socialization pressures placed upon men in childhood.” She goes on to say, “in terms of frequencies, high levels of male sex-typed behavior are not unusual” (119). Finally, Broude (1990:120) notes that she takes “the body of evidence reported here to support the argument that what is labeled in much of the literature as protest masculine behavior is associated with father-absence in childhood, but for reasons other than those found in much of the research on protest masculinity and related syndromes. ... the connection exists as an indirect one, explained in part, and perhaps in large part, by the relationship of father’s role itself to patterns of aggression training for boys.”

### **3. Aggressiveness Training, Combative Sport, and Sham Combats**

**Aggressiveness Training.** Barry, Josephson, Lauer, and Marshall (1976) developed cross-cultural codes for the Standard Sample (Murdock and White 1969) on several child-training variables. Then they clustered traits into related categories. One of those is *Toughness*, which includes the traits of *fortitude*, *aggressiveness*, and *competitiveness*. Fortitude “measures suppressions of visible reaction to pain, exertion, frightening situations, discomfort, e.g., the hardening of boys who are forced to display their stoicism while being plunged into cold water” (Barry et al. 1976:92-93). Aggressiveness includes aggression directed at people or animals and which may be condoned by adults, such as parental admonitions to “stand up for oneself.” Competitiveness refers to the “achievement of superiority over other people, especially peers, e.g., competitive sports or superiority in a craft. The mere existence of competitive games denotes some competitiveness but not a high degree unless there is a very strong value on winning the game” (94). As might be anticipated, Barry et al. (1976) found stronger socialization for toughness in boys than for girls.

**Combative Sport and Sham Combat.** In a replication of the hypotheses proposed by Sipes (1973), we found that combative sports—those that involve actual or potential contact between opponents with the object of inflicting real or symbolic injury on opponents, gaining playing field territory, or are patently warlike—are related to frequency of warfare and homicide in a cross-cultural sample (Chick, Loy, and Miracle 1997). We also noted the existence of a form of activity in some societies, which we termed “sham combat,” that was even more strongly related to warfare (though not to homicide) than individual or team combative sports. These were combat like activities that were not sportive in the sense that they lacked winners and losers and appeared, as often as not, to be training activities for males in the arts of war.

We are particularly interested in the role of sham combats in the instruction of older boys and adolescents in the arts of fighting and warfare. In our earlier research, we found that sham combats, activities that have great verisimilitude to actual combat, are more strongly related to the presence of warfare than are combative sports, such as boxing, wrestling, or lacrosse. Since military training in modern societies is modeled on real combat, and the best training is

that which most closely resembles the real thing, this result was not surprising.

Sham combats are relatively widespread, though they do not appear to exist in a majority of societies. Of the 186 societies in the Standard Sample (Murdock and White 1969), of which we coded 110 from the HRAF files (Chick, Loy, and Miracle 1997), 76 either lacked sham combats or, at least, there was no mention of them in the relevant literature. Twenty-four had one type of sham combat, eight had two, one society had three, and one society was reported to have four. We also coded for the level of aggressiveness in sham combats. Bodily contact but no mention of injuries was evident for one society. Sixteen societies were described as using weapons but with no mention of injuries. Five were described as having bodily contact that resulted in few or no injuries. In six societies, weapons were used and frequent or severe injuries resulted. No information on aggressiveness or injuries was available in 82 cases. Finally, in seven societies, participants in sham combats were indicated to be men only. Men and boys participated in 8 societies while boys only participated in nine societies. Mixed groups of males and females participated in sham combats in one case. Data were either missing or confusing and contradictory in 85 cases. In many, but not all, cases ethnographers described sham combats as training for warfare.

Two examples of sham combats follow below. The first comes from the Marquesas:

*Kaokao*, *pehuhua*, or *kahuka* was a sham battle, in which opposing sides of men from different valleys threw chestnuts (*ihio*, young coconuts (*chi*), young breadfruit (*mei*), candlenuts (*ama*), and even small stones (*kiva*), at each other. The opposing sides stood about fifty paces apart and had alternate turns at throwing. Each man had three chances at hitting any member of the opposing side, and only one man threw at a time. Men were severely wounded and sometimes killed in the game. The game continued until one side was so depleted by casualties that it had to give in. All the while they played, those who were being thrown at leapt and danced about, taunting the thrower and crying “*kaokao*” when a speeding missile would miss its mark. It is said that women sometimes played the game with oranges or limes. (Handy 1923:263)

It is worth noting that Handy (1923) did not include this activity under the subtitle SPORTS AND GAMES, which followed immediately after his description of *kaokao*. Johnson (1940:386) described sham combats with stones among the Kurds:

At intervals they go outside the houses armed with slings and stones. Sometimes as many as fifty boys of all ages and sizes may gather on each side. They commence a great battle, hurling stones at each other with their slings until one side finds the fighting too fierce and beats a retreat.

Numerous other examples of sham combats exist in the ethnographic literature. Such activities typically differ from games or sports in that there seem to be no clear rules for determining winners. Instead, one side ultimately gives up, flees, or is injured and cannot continue. Unlike modern sport, there is usually no effort made to equalize sides in terms of

number of participants, or their size or skill levels.

## 4. METHOD AND RESULTS

Our goal in this paper is to examine the degree to which aspects of the socialization of boys and male adolescents relates to the presence of a masculinist ideology and to hypermasculine behaviors. In order to do so, we have three clusters of variables. The first includes the inculcation of fortitude, aggressiveness, and competitiveness, the indicators of Barry et al.'s (1976) notion of "toughness." The second, following Pleck et al. (1994), is a cluster of variables intended to represent their construct, "masculinist ideology." The third cluster is of "outcome" variables that denote hypermasculine behaviors.<sup>1</sup> These are conceptually similar to the composite protest masculinity variable developed by Broude (1990), though they are taken from more recent codes than she used. All variables and codes are from published sources and are for the Standard Cross-Cultural Sample (Murdock and White 1969)<sup>2</sup>. Table 1 below indicates the variables that we used, along with their sources.

We do not propose any causal chain here, such as that socialization leads to a masculinist ideology which, in turn, results in hypermasculine behaviors. Instead, we propose only that the strength of a masculinist ideology and frequency of hypermasculine behaviors are related to the degree to which boys and male adolescents are socialized in terms of toughness.

In terms of analyses, we first determined the degree to which the measures of toughness are interrelated. Though it is possible that early boys, late boys, and adolescent boys may be socialized differently in terms of toughness in the same societies, it is also possible that reporting or coding error could lead to differences. The problem may be exacerbated as the data for early and late boys were coded at a different time and by different coders than that for adolescent boys. Still, we expected that the variables to be positively related. The intercorrelations are shown in Table 2 below.

As might be anticipated, the correlations for each of the toughness variables are stronger between early and late boys and late boys and adolescents than between early boys and adolescents. Nevertheless, all of the correlations among the three socialization stages for each of the variables are, at least, moderate. Therefore, to simplify our analyses, we summed each the three sets of variables for early boys, late boys, and adolescent boys. Thus, we have summary scores for Fortitude, Competitiveness, and Aggressiveness. When computing the sums, if data were missing for any of the three stages, the case was coded as missing. The summary scores represent, in effect, the strength of socialization for each of the three toughness variables from early childhood through adolescence. Correlations between the three summed toughness variables ranged from moderate (for fortitude and aggressiveness,  $\rho = 0.483$  [n = 29], for fortitude and competitiveness,  $\rho = 0.515$  [n = 29]) to relatively strong (for aggressiveness and competitiveness,  $\rho = 0.711$  [n = 25]).

**TABLE 1**  
**Variables and Code Sources**

<b>Variables</b>	<b>Source</b>
<b>Toughness Cluster</b>	
Inculcation of fortitude - early boys	Barry et al. 1976
Inculcation of aggression - early boys	Barry et al. 1976
Inculcation of competitiveness - early boys	Barry et al. 1976
Inculcation of fortitude - late boys	Barry et al. 1976
Inculcation of aggression - late boys	Barry et al. 1976
Inculcation of competitiveness - late boys	Barry et al. 1976
Inculcation of fortitude – adolescent boys	Schlegel & Barry 1991
Inculcation of aggression – adolescent boys	Schlegel & Barry 1991
Inculcation of competitiveness – adolescent boys	Schlegel & Barry 1991
<b>Masculinist Ideology Cluster</b>	
High value placed on males being aggressive, strong, and sexually potent	Whyte 1978
Value of war: violence/war against non-members of the group	Wheeler 1974
Do members of the society expect violence to solve their problems?	Wheeler 1974
Acceptability of violence toward members of the local community	Ross 1983
<b>Hypermasculine Behaviors Cluster</b>	
Resort to physical force by disputants in settling disputes	Ross 1983
Moderate or frequent interpersonal violence	Sanday 1987
Homicide	Ember & Ember 1992
Assault	Ember & Ember 1992
Overall frequency of warfare	Ember & Ember 1992
Presence of individual combative sports	Chick, Loy, & Miracle 1997
Presence of team combative sports	Chick, Loy, & Miracle 1997
Number of sham combats present	Chick, Loy, & Miracle 1997

**TABLE 2**  
**Intercorrelations (Spearman’s Rho) and Number of Cases among Toughness Variables (Fortitude [FORT], Aggressiveness [AGGR], and Competitiveness [COMP]) for Early Boys (EB), Late Boys (LB), and Adolescents (AD).\***

	FORT-EB	FORT-LB	FORT-AD	AGGR-EB	AGGR-LB	AGGR-AD	COMP-EB	COMP-LB	COMP-AD
FORT-EB	140	138	63	109	119	56	90	109	84
FORT-LB	<b>0.470</b>	155	70	117	134	59	96	119	89
FORT-AD	<b>0.404</b>	<b>0.472</b>	75	61	65	34	48	57	47
AGGR-EB	<b>0.325</b>	<b>0.162</b>	<b>0.349</b>	133	130	53	95	108	81
AGGR-LB	<b>0.253</b>	<b>0.390</b>	<b>0.313</b>	<b>0.670</b>	148	56	96	117	84
AGGR-AD	<b>0.171</b>	<b>0.325</b>	<b>0.214</b>	<b>0.313</b>	<b>0.523</b>	69	43	51	46
COMP-EB	<b>0.318</b>	<b>0.265</b>	<b>0.162</b>	<b>0.358</b>	<b>0.245</b>	<b>0.055</b>	111	111	68
COMP-LB	<b>0.219</b>	<b>0.295</b>	<b>0.250</b>	<b>0.279</b>	<b>0.352</b>	<b>0.276</b>	<b>0.723</b>	135	83
COMP-AD	<b>0.296</b>	<b>0.409</b>	<b>0.416</b>	<b>0.219</b>	<b>0.327</b>	<b>0.647</b>	<b>0.329</b>	<b>0.467</b>	95

\* The upper half of the table indicates the number of cases while the lower half (in bold) shows the correlations

We correlated the three summed toughness variables first with our indicators of a masculinist ideology. We then correlated each of the toughness variables with the hypermasculine behaviors shown in Table 1. These correlations are shown in Tables 3 and 4 below (all probabilities are two-tailed).

**TABLE 3**  
**Correlations (Spearman’s rho) between Socialization for Toughness and Masculinist Ideology (figures in parentheses indicate number of cases)**

<b>Masculinist Ideology</b>	<b>Fortitude</b>	<b>Aggressiveness</b>	<b>Competitiveness</b>
Valued: Strong, Potent Males	0.331 <sup>a</sup> (27)	0.618 <sup>c</sup> (28)	0.618 <sup>d</sup> (38)
Value of War	0.331 <sup>b</sup> (52)	0.433 <sup>c</sup> (41)	0.200 (57)
Violence Solves	0.496 <sup>d</sup> (47)	0.418 <sup>c</sup> (40)	0.303 <sup>b</sup> (51)
Acceptability of Violence	0.412 <sup>b</sup> (26)	0.493 <sup>b</sup> (22)	0.318 <sup>a</sup> (31)

a = p < 0.10      b = p < 0.05      c = p < 0.01      d = p < 0.001

**TABLE 4**  
**Correlations (Spearman's *rho*) between Socialization for Toughness and Hypermasculine Behaviors (figures in parentheses indicate number of cases)**

<b>Hypermasculine Behaviors</b>	<b>Fortitude</b>	<b>Aggressiveness</b>	<b>Competitiveness</b>
Resort to Force	0.209 (32)	0.583 <sup>c</sup> (26)	0.236 (42)
Interpersonal Violence	0.183 (49)	0.455 <sup>c</sup> (43)	0.296 <sup>b</sup> (54)
Homicide	0.040 (36)	0.848 <sup>d</sup> (31)	0.414 <sup>c</sup> (44)
Assault	-0.182 (36)	0.639 <sup>d</sup> (32)	0.316 <sup>b</sup> (40)
Frequency of Warfare	0.487 <sup>d</sup> (47)	0.413 <sup>b</sup> (37)	0.327 <sup>b</sup> (54)
Individual Combative Sports	0.272 (33)	-0.015 (24)	0.436 <sup>d</sup> (41)
Team Combative Sports	0.378 <sup>b</sup> (34)	-0.146 (22)	0.048 (37)
Number of Sham Combats	0.221 (35)	0.370 <sup>a</sup> (24)	0.162 (40)

a =  $p < 0.10$       b =  $p < 0.05$       c =  $p < 0.01$       d =  $p < 0.001$

Finally, we correlated our indicators of a masculinist ideology with the hypermasculine behaviors. These correlations are shown in Table 5 below.

**TABLE 5**  
**Correlations (Spearman's *rho*) between Indicators of Masculinist Ideology and Hypermasculine Behaviors (figures in parentheses indicate number of cases)**

<b>Hypermasculine Behaviors</b>	<b>Indicators of Masculinist Ideology</b>			
	Potent Males	Value of War	Violence Solves	Accept Violence
Use of Force	0.209 (32)	0.583 <sup>c</sup> (26)	0.236 (42)	0.184 (64)
Interpersonal Violence	0.174 (70)	0.388 <sup>d</sup> (111)	0.322 <sup>c</sup> (98)	0.473 <sup>d</sup> (58)
Homicide	0.182 (58)	0.326 <sup>c</sup> (81)	0.360 <sup>c</sup> (74)	0.239 (38)
Assault	0.101 (58)	0.126 (79)	0.264 <sup>b</sup> (72)	0.192 (40)
Frequency of Warfare	0.342 <sup>c</sup> (73)	0.438 <sup>d</sup> (111)	0.368 <sup>d</sup> (97)	0.584 <sup>d</sup> (53)
Individual Combative Sports	0.084 (57)	0.212 <sup>a</sup> (80)	0.206 (70)	0.258 (39)
Team Combative Sports	0.046 (53)	0.063 (22)	0.117 (63)	0.081 (37)
Number of Sham Combats	0.252 <sup>a</sup> (55)	0.322 <sup>c</sup> (79)	0.181 (69)	0.328 <sup>b</sup> (41)

a =  $p < 0.10$       b =  $p < 0.05$       c =  $p < 0.01$       d =  $p < 0.001$

The inter-correlations shown in Table 2 among the variables listed in Table 1 are more or less as anticipated. The three inculcation of fortitude variables are moderately interrelated. The three inculcation of aggressiveness variables are moderately to strongly correlated as are the three inculcation of competitiveness variables. The three composite variables, created by summing the early boy, late boy, and adolescent values for the inculcation of fortitude, for aggressiveness, and for competitiveness, correlate at moderate levels.

Table 3 shows that, with the exception of the relationship between the inculcation of competitiveness and the value placed on warfare, all of the three toughness variables had at least moderate correlations with each of the masculinist ideology variables. It is difficult to make comparisons among the correlations because of the different numbers of cases for each. Nevertheless, the relationships between the inculcation of fortitude and the inculcation of aggressiveness appear to be stronger than those for the inculcation of competitiveness with the indicators of masculinist ideology for those, at least for the three indicators that address violence directly. The relationship between the inculcation of competitiveness and “High value placed on males being aggressive, strong, and sexually potent” is stronger than for the other two toughness variables (actually, the correlation is identical to that for the inculcation of aggressiveness but the number of cases is higher for competitiveness). Since both fortitude and aggressiveness are probably more valuable traits in violent encounters than competitiveness, the observed relationships appear to be plausible.

Table 4 indicates that the inculcation of fortitude correlates modestly with the frequency of warfare and the presence of team combative sports. The inculcation of aggressiveness, however, correlates moderately to strongly with all of the hypermasculine behaviors except the presence of individual combative sports and the presence of team combative sports. The correlation between inculcation for aggressiveness and homicide is especially strong with those for the inculcation of aggressiveness and resort to force and assault not far behind. The correlations between the inculcation of competitiveness and the hypermasculine behaviors range from modest to moderate except for the presence of team combative sports and sham combats. The correlations between the inculcation of competitiveness and these two variables are low and non-significant.

Finally, Table 5 indicates that our indicators of a masculinist ideology correlate with several of the hypermasculine behaviors. “High value placed on males being aggressive, strong, and sexually potent” correlates moderately only with the frequency of warfare and at a relatively weak, but statistically significant, level with the number of sham combats present. The only significant correlation between either the presence of individual or team combative sports is a very weak one between the value of war and the presence of individual combative sports. On the other hand, the number of sham combats correlates at low to moderate levels with each of the indicators of a masculinist ideology, with the exception of the expectation that violence will solve problems.

## 5. SUMMARY AND DISCUSSION

Tables 3, 4, and 5 show numerous statistically significant relationships among variables from the three clusters. These results are very much in accord with those of Broude (1990) although we arrived at them in a somewhat different fashion. First, our operationalization of hypermasculinity differs from hers, though our conceptualization of the construct is the same. Second, we chose to group attitudinal variables into a separate masculinist ideology cluster, a term we borrowed from Pleck et al. (1994). In her study, Broude combined attitudinal/value/personality variables (e.g., sensitivity to narcissistic wounds, pugnacity) with behavioral variables (e.g., frequency of personal crime, frequency of theft), a practice that may not be altogether justified (Pleck et al. 1994). After all, attitudes, personality traits, and behaviors are not the same order of things. Indeed, an extensive literature on attitude-behavior relationships indicates that the correspondence between what goes on in one's head and how one behaves is often far from perfect (see, e.g., Ajzen & Fishbein 1977; Fishbein and Ajzen 1975; Sutton 1998). Similarly, the correspondence between culture and behavior is usually less than perfect (for a review, see Chick, 2001).

Broude computed her hypermasculinity scores for societies when three or more of her seven individual variables were present. Coding in that way, it is possible for the hypermasculinity score for a society to be based solely on attitudinal/value/personality variables, solely on behavioral variables, or on some combination of the two. We believe that the validity of such a procedure is highly suspect. We also feel that it is useful to distinguish masculinist ideology from hypermasculine behaviors since it is possible that the two could be unrelated or only weakly related—men could be all bark and no bite, on one hand, or speak softly and carry a big stick, on the other.

The most general finding of this study is hardly surprising: the inculcation of aggressiveness in early boys, late boys, and adolescent boys is moderately to strongly associated with a masculinist ideology and hypermasculine behavior. The relationships between the inculcation of the other two toughness variables, fortitude and competitiveness, and a masculinist ideology and hypermasculine behaviors are generally both fewer in number and weaker.

We found only a couple of moderate relationships between any of the toughness variables and either individual or team combative sports. Only one of the indicators of a masculinist ideology correlated significantly with either of the two types of combative sports. We feel that this may be due to the fact that when we coded the combative sport variables we used Sipes' (1973) operationalizations for both. As we noted in our restudy of the relationships among combative sports and warfare (Chick, Loy, and Miracle 1997), we were concerned with how Sipes (1973) had operationalized both individual and team combative sports. For example, we wondered why Sipes (1973) had included "certain team sports in the category of combative sports merely because they involve the acquisition of territory or placement in, or removal of, a disputed object, usually a ball, from a guarded location, as occurs in many team sports such as hockey, lacrosse, shinny, football, basketball, and so on" (263). Because of that

operationalization, some sports coded as combative involve little physical contact or, when it does occur, it is incidental to the play. If, as we suspect, combative sports are either models of actual combat or forms of training for combat, it is reasonable to hypothesize that their degree of verisimilitude to genuine combat will correlate positively with the frequency of warfare in a cross-cultural sample (cf. Chick, Loy, and Miracle 1997). A test of this hypothesis will require a reformulation of the operationalization of both individual and team combative sports.

In sum, though our design and methods differ somewhat from those of Broude (1990), and while we did not examine the significance of father-absence, our results are concordant with hers with respect to the importance of socialization in the etiology of hypermasculinity. In particular, our study supports Broude's conclusion that socialization pressures on boys are related to high levels of sex-typed behavior. However, this raises the question of whether such behavior can then be regarded as problematic (as in Pleck et al. 1984) or as deviant. As Schlegel and Barry (1991:133) note, "Deviant behavior is, by definition, behavior that departs from what is generally accepted as appropriate" though they add that "It may be tolerated, mildly punished, or severely sanctioned." Naturally, some deviant behaviors are more deviant than others and, again as Schlegel and Barry note, what is deviant in some societies is not in others. Further, Schlegel and Barry point out that some degree of deviance is commonly *expected* among adolescents in many societies (though it may not be encouraged). So, hypermasculinity may not necessarily be deviant, may be expected, may be tolerated, and in many cases appears to be actively encouraged among boys, adolescents, and adult males. As former Secretary of the United States Department of Health and Human Services Louis Sullivan (1991, p. 1) noted, many men in the US are members of "a generation whose manhood is measured by the caliber of the gun he carries or the number of children he has fathered." We may abhor such manifestations of hypermasculinity in our own culture or even be amused at its manifestations in others (e.g., the "macho" complex in parts of Latin America). The results of this study indicate that it exists, at least in part, because young men are trained and encouraged in many societies to accept a masculinist ideology and then to behave in accord with it.<sup>3</sup>

## 6. NOTES

1. Our original intent was to incorporate sexual assault on females as a variable in order to examine relationships between socialization, masculinist ideology, and sexual aggressiveness as a behavioral outcome. Several codes for rape are available in the cross-cultural literature. Unfortunately, our past use of these codes suggests that they are unreliable and may be invalid, as well (Chick, Miracle, and Loy 1996).

2. Cases were selected if the data quality variable for sham combats was greater than 1 (on a scale of 1 - 5 where 5 = High) and the data quality variable for frequency of warfare was less than 6 (meaning that there was a reliability score from two of three coders and the two who provided scores were not more than 1 point apart) but not 0, meaning that no reliability score could be determined. Reliability scores were not available for the other variables.

3. An earlier version of this paper was presented at the 1998 meeting of the Society for Cross-Cultural Research, St. Petersburg, FL.

## 7. REFERENCES CITED

- Ajzen, I., and M. Fishbein  
 1977 Attitude-Behavior Relations: A Theoretical Analysis and Review of Empirical Research. *Psychological Bulletin* 84:888-918.
- Bacon, M. K., I. L. Child, and H. Barry III  
 1963 A Cross-Cultural Study of Correlates of Crime. *Journal of Abnormal and Social Psychology* 66:291-300.
- Barry III, H., L. Josephson, E. Lauer, and C. Marshall  
 1976 Traits Inculcated in Childhood: Cross-Cultural Codes 5. *Ethnology* 15:466-508.  
 1987 STDS13.DAT. *World Cultures* 1(2).
- Broude, G.  
 1990 Protest Masculinity: A Further Look at the Causes and the Concept. *Ethos* 18:103-122.
- Brown, D. E.  
 1991 *Human Universals*. Philadelphia: Temple University Press.
- Chick, G.  
 2001 Cultural Consonance in a Mexican Festival System. *Field Methods* (in press).
- Chick, G. and J. M. Loy  
 1998 Making Men of Them: Male Socialization for Warfare, Combative Sports, and Sexual Aggressiveness. Presented at the annual meeting of the Society for Cross-Cultural Research, St. Petersburg, FL, February 18-22.
- Chick, G., J. W. Loy, and A. W. Miracle  
 1997 Combative Sport and Warfare: A Reappraisal of the Spillover and Catharsis Hypotheses. *Cross-Cultural Research* 31:249-267.
- Chick, G., A. W. Miracle, and J. W. Loy  
 1996 Rape, Sport, and War. *Human Peace* 11(1):3-13.
- Ehrenreich, B.  
 1997 *Blood Rites: Origins and History of the Passions of War*. New York: Henry Holt and Company.
- Ember, M. & Ember, C. R.  
 1992 Warfare, Aggression, and Resource Problems: Cross-Cultural Codes. *Behavior Science Research* 26:169-226
- Fishbein, M. and I. Ajzen  
 1975 *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley.
- Gewertz, D.

- 1981 A Historical Reconsideration of Female Dominance among the Chambri of Papua, New Guinea. *American Ethnologist* 8:94-106.
- Ghiglieri, M. P.  
 1999 *The Dark Side of Man: Tracing the Origins of Male Violence*. Reading, MA: Perseus Books.
- Handy, E. S. C.  
 1923 Native Culture in the Marquesas. *B. P. Bishop Museum Bulletin* 9:262-263.
- Johnson, J. C. A.  
 1940 The Kurds of Iraq. I. *Geographical Magazine* 10:382-393.
- Keeley, L. H.  
 1996 *War Before Civilization: The Myth of the Peaceful Savage*. New York: Oxford University Press.
- Low, B.  
 2000 *What is Sex For?* Princeton, NJ: Princeton University Press.
- Mead, M.  
 1935 *Sex and Temperament in Three Primitive Societies*. William Morrow and Company.
- Miracle, A. W., G. Chick, and J. W. Loy  
 1996 Aggression in Sport. In *Encyclopedia of World Sport: From Ancient Times to the Present*. D. Levinson and K. Christensen (eds.). Santa Barbara, CA: ABC-CLIO, Pp. 12-17.
- Murdock, G. P., and D. R. White  
 1969 Standard Cross-Cultural Sample. *Ethnology* 8:329-369.
- O'Connell, R. L.  
 1989 *Of Arms and Men: A History of War, Weapons, and Aggression*. New York: Oxford University Press.
- Pleck, J. H., F. L. Sonenstein, and F. L. Ku  
 1994 Problem Behaviors and Masculinity Ideology in Adolescent Males. In, *Adolescent Problem Behaviors*. R. Ketterlinus and M. E. Lamb (Eds.), Hillsdale, NJ: Lawrence Erlbaum Associates.
- Ross, M.  
 1983 Political Decision Making and Conflict. *Ethnology* 22:169-192.  
 1987 STDS30.DAT. *World Cultures* 1(4).
- Sanday, P.  
 1987 STDS26.DAT. *World Cultures* 1(4).
- Schlegel, A. and H. Barry III  
 1991 *Adolescence: An Anthropological Inquiry*. New York: The Free Press.
- Segall, M. H., P. R. Dasen, J. W. Berry, and Y. H. Portinga  
 1990 *Human Behavior in Global Perspective: An Introduction to Cross-Cultural Psychology*. New York: Pergamon Press.
- Sipes, R. G.  
 1973 War, Sports and Aggression: An Empirical Test of Two Rival Theories. *American Anthropologist* 75:64-86.
- Slater, P. E. and D. A. Slater

- 1965 Maternal Ambivalence and Narcissism: A Cross-Cultural Study. *Merrill Palmer Quarterly of Behavior and Development* 11:241-259.
- Sullivan, L.  
1991 US Secretary Urges TV to Restrict “Irresponsible Sex and Reckless Violence.” *Boston Globe* 1 (May 25).
- Sutton, S.  
1998 Predicting and Explaining Intentions and Behavior: How Well Are We Doing? *Journal of Applied Social Psychology* 28:1317-1338.
- Thornhill, R., and C. T. Palmer  
2000a Why Men Rape. *The Sciences* 40(1):30-36.  
2000b *A Natural History of Rape: Biological Bases of Sexual Coercion*. Cambridge, MA: MIT Press.
- Toby, J.  
1966 Violence and the Masculine Mystique: Some Qualitative Data. *Annals of the American Academy of Political and Social Science* 36(4):19-27.
- Wrangham, R., and D. Peterson  
1996 *Demonic Males: Apes and the Origins of Human Violence*. New York: Houghton Mifflin Company.

2001 World Cultures 12(1): 105

## World Cultures CD Data Disk

The CD with this issue of *World Cultures* contains the following files in the home directory:

ST85.DAT	STDS85.COD	ST85.SAV:	Secondary disposal codes
ST86.DAT	STDS86.COD	ST86.SAV:	Language and region codes
ST87.DAT	STDS87.COD	ST87.SAV:	Highest number counted codes
STDS01.COD			Corrected code file
STDS03.COD			Corrected code file
FILECDBK			Updated MAPTAB codebook
STAMPL			Updated MAPTAB codebook
WC12#1.DOC			Issue in Word 2000 format

There are two subdirectories with files for 12(1):

### **\inuit**

This subdirectory contains the Inuit mortuary practice files

### **\culture**

This subdirectory contains the data files for Khaltourina and Korotayev's article.

There are five other subdirectories with files containing:

### **\Ethnographic Atlas Revised by World Cultures**

This includes the codebook and SPSS data file for 105 variables and 1267 societies.

### **\Std Cross-Cultural Sample Manuals**

This includes codebooks and bibliography for the Standard Sample

### **\Western North American Indians Data Set**

This contains codebook and SPSS data files for the 441 variables and 172 N. A. Indian societies.

### **\World Cultures Volumes 1 to 11**

This contains subdirectories of all files of the first eleven volumes of World Cultures.

*William Divale*