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Status and Prosociality in Egalitarian Societies

By:

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A THESIS

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Abstract

Egalitarian societies have been the subject of significant academic attention for their unique cultural qualities, both as a representation of a distinct political category, and as a base line in the context of biological and cultural evolution. Although the domains and degrees of egalitarianism vary cross-culturally, certain characteristics seem universal. Egalitarian societies are non-stratified social systems that lack hereditary statuses with ascribed coercive power. In egalitarian societies leadership is achieved and dependent upon personal qualities and individual behavior. Leaders are granted authority but lack coercive power and rely on techniques such as persuasion to exert influence over others. Multiple theories on status and egalitarianism have been proposed, but are without cross-cultural validation. This research investigates the importance of prosocial behaviors, or behaviors that benefit the group, in determining relative social standing or status and evaluates several theoretical explanations of status attainment with cross-cultural investigation. Focusing on the merits of prestige that lead to high status, as documented in the ethnographic record and accessed through the Electronic HRAF, I have identified and categorized behaviors and qualities that increase social status in egalitarian societies. Data collected on a comprehensive sample of egalitarian societies in the eHRAF have been classified under the domains of economics, politics, ritual, arts, personality, and physical characteristics, which together encompass a total of 22 status categories. Recurrent in my findings are the status categories of *shamanism*, *hunting*, *warfare*, and *generosity*. Descriptive and multivariate results reveal cross-cultural patterns of social values, suggesting a critical component of the egalitarian ethos is promoting and rewarding prosociality with differential prestige and status. This research evaluates and synthesizes the theoretical literature with supporting quantitative data on the issue of status and egalitarianism.

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Introduction:

Egalitarian societies are human populations or cultures that function without centralized political and economic power or hereditary status structures, or as Fried (1967:33) defines, “an egalitarian society is one in which there are as many positions of prestige in any given age-sex grade as there are persons capable of filling them.” Despite an underlying ethos of equity, relationships between the sexes are highly varied in these societies ranging from highly sexually egalitarian to severely gender stratified (Begler, 1978). Egalitarian political and social structures are characteristic of band and tribal level societies (Service, 1962), which include hunter-gatherer, horticultural, and pastoral groups (Boehm, 1999). Anthropologists have done considerable research discussing and understanding the phenomenon of egalitarian social dynamics both in theoretical literature and ethnographic fieldwork.

It is theorized that human populations will likely exhibit egalitarianism when living in small, locally autonomous social and economic communities (Boehm, 1999). As social complexity increases and subsistence strategies intensify, social stratification becomes more prominent (Johnson & Earle, 1987). Egalitarian populations have become increasingly rare as state level societies broaden their influence within a global economy. Therefore, studying egalitarian societies is useful in understanding the nature of group values and individual behaviors in the context of political and social systems that are more likely to characterize humanities’ evolutionary history. The ethnographic record allows for cross-cultural research that addresses questions regarding egalitarianism from a comparative perspective.

This research investigates status attainment in egalitarian society. Lacking inherited rank or a stratified social system, all individuals are relative equals among their contemporaries in egalitarian societies (Fried, 1967). This does not imply that these societies are without

leadership or social differences. Rather, leadership is ephemeral and dependent on personal accomplishments, and high status individuals are afforded influence and authority, not coercive power (Service, 1962; Barkow, 1989). Social status in egalitarian societies is as recognized and functional as any society. However, the nature of status and the paths to attain status in egalitarian settings are unique.

Status, in the social and biological sciences, is a widely used and very generalized term with various meanings dependent upon context. Within dominance hierarchies of social animals, including non-human primates, status is determined and maintained primarily through agonistic interactions. Leadership is despotic in nature and individuals at the top of the social hierarchy have priority to important fitness enhancing resources such food, mates, and shelter (Smuts, Cheney, Seyfarth, Wrangham, & Struhsaker, 1987; Barkow, 1989; Boehm, 1999). Linton (1936) describes status and role in both traditional and modern human societies distinguishing ascribed statuses (those innate from birth such as gender, age, or class) from achieved statuses (those that are based on accomplishments and individual performance). Barkow (1989) also makes this distinction noting that status can imply relative standing as indicated by prestige, or refer to a fixed social position, such as statuses of age or gender. Within small-scale societies the status hierarchy is shaped by the relative accumulated prestige of individuals, in that prestige leads to high status (Henrich & Gil-White, 2001). All forms of status are connected to various degrees of power, or the ability to influence others, and vary by individual (Barkow 1989). Fundamentally status refers to position in a social hierarchy, and whether maintained through dominance or prestige high status is accompanied by social deference and greater access to valuable resources (Henrich & Gil-White, 2001).

In egalitarian society ascribed statuses have many social implications, however, achieved status earned through prestige systems is connected to leadership and authority, and confers greater access to resources than other ascribed statuses, such as age or gender (Wiessner, 1996a). This research defines status in egalitarian societies as an earned position relative to one's contemporaries within a social hierarchy. Status is determined by individual prestige and grants increased social influence and greater access to resources.

Individuals are measured and motivated by prestige, which is the ideal standard of quality within a given skill set, as determined by shared evaluations of the group (Fried, 1967). As individuals compete for status through prestige systems in various skill sets, such as hunting, generous displays, or dispute settlement, society as a whole works to prevent hierarchy and dominance through vigilantly enforced leveling mechanisms, such as mandated distribution of big game meat provided by hunters (Fried, 1967; Boehm, 1993). Therefore, the ability for an individual to dominate the group through coercive power is limited and controlled through counter-dominant behaviors geared to serve group interests (Erdal & Whiten, 1994). With authority vested in the collective whole society is able to selectively rank the activities and qualities most valuable to the group's survival and success, and promote these behaviors through prestige, deference, and status.

Prosocial behaviors are those that are carried out for the benefit of others (Gurven & Winking, 2008). However, prosociality is not necessarily exclusively altruistic and prosocial behaviors can ultimately be better understood as selfishly motivated reproductive strategies. Prosociality is a term with limited use, especially in anthropology, but recently is receiving fresh academic attention (Reyes-Garcia et al., 2006; Gurven & Winking, 2008; Barradale, 2009; Henrich et al., 2010). The determinants of prosocial activity are culturally defined and likely

dependent on ecological variation and cultural responses to environmental stressors. Given that in egalitarian society status and prestige are dynamic and determined through group evaluations, individuals can pursue status through strategies incorporating prosocial activities (Barkow, 1989; Wiessner 1996a).

A goal of this research is to determine what behaviors merit status in egalitarian societies, and to what degree status is achieved through prosociality. The foundational hypothesis is that prosocial behaviors will be the primary route to high status in egalitarian societies, and that prestige will be connected to prosociality, cross-culturally in egalitarian societies. The ethnographic record and theoretical literature suggests that hunting, warfare, and shamanism are common prosocial activities in which males compete, and achieve status through in egalitarian societies (Service, 1962; Fried, 1967; Patton, 2000; Roscoe, 2009). The degree to which these patterns of status attainment exist cross-culturally, and the relative importance of these commonly cited status behaviors, remains undocumented.

Despite significant literature on egalitarian societies there has been little systematic, comparative research investigating cultural values concerning status. This research will allow established theories on egalitarianism and status to be evaluated with cross-cultural data. Status striving in these cultures is important to explore and understand because differences between stratified and non-stratified societies reveal significant shifts in social strategies and cultural values that occur during cultural evolution; with social stratification prosocial investments appears to be culturally deemphasized. Furthermore, this research suggests that prosocial activities and personal investment in group welfare are likely to reflect the primary routes to higher status throughout the vast majority of human evolution.

Literature Review:

Within Hominidae—our taxonomic family including the social apes: chimpanzees, bonobos, gorillas and orangutans—egalitarianism is restricted to socially simple human societies that are small in size (Boehm, 1999). Compared to non-human primate and other animal dominance hierarchies, human egalitarianism is characterized by an increase in sharing and a reduction in the significance of individual dominance and hierarchal arrangement (Fried, 1967). Prestige among humans allows for a symbolic, but reliable representation of skills and previous accomplishments (Henrich & Gil-White, 2001). Through group wide prestige humans can compete intrasexually, displaying competence in various skills and behaviors, avoiding the high costs of agonistic interaction (Barkow, 1989).

Service (1962) describes band and tribal societies as egalitarian systems. In band level sociocultural integration, all elements of social life are conducted among a few associated groups of related nuclear families. An individual in band level organization will maintain a variety of statuses in multiple domains within a lifetime. However, sociocentric statuses, or personal labels based on accomplishments, are more variable between individuals than are egocentric statuses, based on age or kinship (Service, 1962). Thus at these levels of sociopolitical integration social status is earned, not inherited.

The social organization of tribal societies is more elaborate than band level. Tribes are larger conglomerations of more kinship segments, tightly bound through marriage ties and social structures (Service, 1962). Although tribal societies exhibit more sociocentric status labels through social groups, such as sodalities, in both band and tribal level society leadership is

personal and based on accomplishments and charisma with no true political positions or individuals with coercive power (Service, 1962).

In egalitarian societies, both tribes and bands value qualities such as generosity, bravery, and leadership. However, they are liberal in leveling and preventing excessive gaps in perceived abilities or resources (Fried, 1967). Either collectively or individually members of egalitarian societies use tactics such as criticism, ridicule, disobedience, deposition, exile, and execution, to subdue excessively assertive leaders who may be too aggressive, not generous, morally unsound, or ineffective (Boehm, 1993).

As population increases, competition between groups escalates, making reliable and effective leadership more necessary for survival, both in alliance relationships and defense (Johnson & Earle, 1987). As a consequence, the qualities and standards typically demanded of leaders shift as leadership becomes more crucial, as in times of intense warfare, and the ability of leaders to manipulate and control the population expands (Fried, 1967; Roscoe, 2009). Johnson and Earle (1987) assert that the economic and social changes resulting from population growth underlay cultural evolution, suggesting the capacity of egalitarian societies to resist stratification and level strong leadership is due to equal access of resources without high competition or the need for strong defense.

It is widely accepted that egalitarianism represents the base level of social complexity in human populations, from which more complex stratified populations evolved (Service, 1962; Johnson & Earle 1987). However, explaining the reasons behind the global distribution and variation in egalitarian societies is both more complex and contentious in the theoretical literature. Similar to Fried, Woodburn (1982) suggests that the nature of economic systems have fundamental implications for social structure as well as leadership and status. Egalitarian

societies maintain an immediate-return economic system in which daily subsistence efforts strive to meet daily caloric requirements without overly complex processing or storage (Woodburn, 1982). The conditions of dynamic leadership based on prestige systems is in the context of flexible social groupings, free choice of residence by individuals or families, independent and equal access to resources, and an emphasis on sharing (Woodburn, 1982). Flexibility in grouping and daily food demands supports and selects for generous leaders who can reliably provide meat, and maintain group cohesiveness.

Delayed-return systems, however, require more organization and individuals receive a return for productivity after an investment over time. Examples of delayed-return economic activities include technical production such as building boats, nets, weirs, pit-traps, and beekeeping, food storage and processing, stricter management of wild plants, reciprocal trade networks, or assets held by men over women through marriage bestowals (Wiessner, 1982; Woodburn, 1982). Both immediate and delayed-return systems can be found among hunter-gatherer populations, but delayed-return systems are not egalitarian to the same degree as immediate-return systems, and exhibit certain characteristics of stratification such as wealth based leadership and economic interdependence (Woodburn, 1982).

As an underpinning of the economic systems of egalitarian societies, Cashdan (1980) proposes that ecological conditions are responsible for the adaptation of egalitarianism. Among the !Kung, who live in the deserts of southern Africa, unpredictable food and water resources distributed over a wide area requires populations to emphasize sharing and distribution of wealth to effectively endure desolate conditions. Intricate systems of reciprocity and strong social pressures on equality solve the problem of environmental harshness, and maintain egalitarian social structures. The impact of economic systems and environmental contexts on social and

political structure suggest the potential for egalitarianism among humans is an adaptive quality with communal benefits.

Prestige in Egalitarian Societies

Prestige is critical in egalitarian societies and represents the ideological component of status based on group wide evaluation (Fried, 1967). Human prestige is reflective of individual skills and accomplishments and is an evaluation of capacities in various domains that are valued by the group (Barkow, 1989). The behaviors or qualities that a society identifies as most prestigious serve as comparative indicators of social values. The Mbuti of central Africa grant the greatest prestige to the skilled hunter (Turnbull, 1965), whereas the Yanomamö of the Amazon honor the *unokai*, or those who have killed, with the highest prestige (Chagnon, 1988). In the context of variable environmental stressors the utility and flexibility of prestige systems becomes clear.

Henrich and Gil-White (2001) suggest prestige has become so pivotal and elaborated upon in human sociality as a byproduct of our complex social learning capacities. Due to differential skill levels in culturally learned behaviors, both individuals and the group benefit by identifying the most skilled individuals and capitalizing on their knowledge through increased deference and attention (Henrich & Gil-White, 2001). Prestige is social recognition from society for embodying particularly valued characteristics.

Prestige acts as a motivating factor for individuals to pursue excellence in behaviors valued by the group (Barkow, 1989; Hawkes, 1991; Henrich & Gil-White, 2001, Gurven & Hill, 2009). Consequently, prestige systems improve the quality and efficiency of culturally transmitted information (Henrich & Gil-White, 2001). In egalitarian societies, the prestigious individuals are awarded high status, and status leads to social and reproductive benefits (Hill,

1984; Smith, 2004; Gurven & Von Rueden, 2006). Through prestige systems, individuals are able to maximize skills in culturally valued activities, as well as strive for personal advantages and compete for status. Prestige is the mechanism by which group values determine status.

Prosociality

Prosocial behavior is common throughout human societies, and can be defined as actions that benefit other members of the group without *direct* compensation (Gurven & Winkling, 2008). The prosocial behaviors most valuable to the group are likely to vary with ecological conditions and vary cross-culturally. Roscoe (2009) suggests that small-scale society is structurally adapted to solving specific problems and meeting specific goals, such as biological and social reproduction, subsistence optimization, and military defense. Responding to subsistence and military demands require developed skill, organization, and a willingness for prosociality. In egalitarian societies prosocial investment confers increased access to resources and public authority, in the same manner as agonism and dominance among non-human primates (Wiessner 1996a).

Barradale (2009) describes the connection between reproductive success and prosocial activity and terms this prosocial selection, suggesting this selective pressure has contributed to the exaggeration of specific prosocial traits and tendencies present in modern populations. In order for prosocial behaviors to be profitable they must be broadcast to members of the community. Using field data from a Shuar village of hunter-horticulturalists in the Ecuadorian Amazon Price (2003) evaluates theoretical models on prosocial behavior by measuring individual effort in public office, and community labor of males elected to the “*socio*” position that entails community responsibilities, as well as the perceived altruism and status of these individuals. Price (2003) demonstrates that not only are high status individuals likely to be pro-

community altruists, a measure of prosocial investment, individuals of the community are accurate and efficient monitors of prosocial behaviors, and those who assume the responsibility of sanctioning are also highly respected in the community. Understanding the incentives, the expression of prosociality is not to be assumed as entirely unselfish. Rather, prosocial behaviors are sometimes a more subtle method of employing authority by establishing relationships of the provider and the provider for (Wiessner 1996a). In these societies prosocial investment is a selfish strategy. Smith (2004) presents a review of cross-cultural evidence demonstrating a positive correlation between hunting success and reproductive success. Several hypotheses have been proposed to account for this phenomenon, such as the direct provisioning of offspring by hunters, reciprocal interactions of hunters, costly signaling theory, and superior phenotypic qualities. Smith (2004) explains that in the context of widespread sharing provisioning and reciprocity may play a smaller role and the natures of the benefits in signaling theory are varied and ultimate causes of high reproductive success of hunters requires more research. Egalitarian societies provide individuals the opportunity to maximize their social influence and benefit from the rewards of high status—greater access to resources and mates—through success in prosocial activities.

Ethnographic intuition suggests the most common prosocial activities in egalitarian societies seem to be shamanism, hunting, and warfare. Shamanism requires a lifetime dedication to developing the skills required of a successful healer, but also is a highly demanding and time consuming practice. Shamans invest heavily in the physical and spiritual health of the group or to ill individuals. Although in some societies shamans may charge for their services, many shamans are compensated indirectly through prestige and high status exclusively. Nearly all traditional societies rely on hunted game to some degree (Marlowe, 2007), and nearly all require that

returns from big game hunting be distributed among the group, constituting hunting as a prosocial activity (Peterson, 1993; Wiessner 1996b). Warfare provides a direct and obvious investment to group welfare. Military skill in traditional settings is useful in protecting the group from annihilation, securing a wider resource base through territory expansion, and deterring potential attackers through conspicuous displays. These prosocial activities address the issues of health, subsistence, and defense. Although all are likely to be of some value to all societies, the variation in relative importance is most likely related to ecological variables and expressed through prestige systems and status attainment.

Egalitarian societies universally have a flexible social hierarchy based on individual accomplishments. Collective values shape prestige systems and prioritize the activities most important to the group. Therefore, prosocial investment becomes the most salient strategy for status striving. Theoretical and ethnographic literature suggests that egalitarian societies will, cross-culturally, award status through success in prosocial activities.

Methods:

This research is based on ethnographic information documenting egalitarian societies. The Electronic Human Relations Area Files (eHRAF) is an annually growing online ethnographic database, presently covering over 200 distinct cultures. Information is subject coded at the paragraph level according to the Outline of Cultural Materials (OCM) codes, which relate to the topics and subjects of the text (Murdock, Ford, & Hudson, 1945). The eHRAF is an accessible cross-cultural sample that allows for specific information to be collected from a fairly extensive selection of the ethnographic record.

Searches of the eHRAF were limited to egalitarian societies. The definition of egalitarian for this research requires an absence of hereditary social stratification and inherited statuses or leadership positions, along with egalitarian economic and political systems. This information was obtained from the Culture Summary section of the eHRAF, and cross-referenced with Murdock and Provost's (1973) variable 158 from the SCCS, Social Stratification. Of the eHRAF sample, 51 societies are egalitarian.

Using boolean searches of 39 relevant OCM codes (See Appendix 1) along with text searches of 'status' or 'prestige', ethnographic data on prestigious activities and qualities, and cultural markers of high status were revealed and reviewed. The OCM code *Status, role and prestige* (554), covered the vast majority of ethnographic returns. Focusing exclusively on traditional values of individual behaviors and qualities, this research excludes information on status relating to kinship seniority or age related status, status reflective of outside political influences or acculturation, as well as values reflective of transitions away from traditional conditions as identified by the ethnographer. Data collection emphasized traditional activities leading to increased social status, prestige, and achieved upward social mobility.

Collected ethnographic data was organized under a classification system developed to account for all relevant data. This classification system is based on status domains composed of multiple status categories. Descriptive statistics were used to examine frequencies between domains and individual status categories. The six status domains: economic, politics, ritual, arts, personality, and physical together contain 22 status categories that have been operationally defined to encompass the variety of related behaviors and qualities described in the collected ethnographic data which are connected to prestige and high status. Status category criteria are listed below by status domain (see Appendix 2).

Economic domain

- *Hunting* refers to demonstrated competence in hunting by reliably providing protein from wild game for distribution.
- *Technology* refers to demonstrating proficiency in specialized manufacturing of tools or functional products such as, arrows, crafted tools, canoes, etc., as well as displaying superior mechanical skills
- *Exchange* refers to maintaining exchange relationships with kin, friends or other allies, formal gift giving between families during visits, and maintaining debts stored through property loans, and success in trading.
- *Horticulture* refers to success in growing food, producing surpluses of staple crops, consistently yielding good harvests, proficiency in gathering wild plant foods, skill in tree felling, and maintaining productivity in cultivation.
- *Pastoralism* refers to owning domesticated animals for production, transportation, or slaughter, as well as successfully stealing horses, and maintaining a herd of livestock.

- *Wealth* refers to accruing culturally specific luxury goods, such as rare or liquidable assets through travel or trade, owning a high quality dwelling, owning symbolically or economically valued items, or slave ownership.
- *Generosity* refers to displaying kindness through throwing feasts, giving gifts, self depreciation, distributing resources or property among the group, and providing voluntary assistance in economic activities.

Politics domain

- *Geographic knowledge* refers to knowing the homeland well, being able to predict or identify resources, traveling to foreign lands, pioneering new territory, possessing knowledge of the outside world, traveling in dangerous, life threatening conditions successfully, the ability to influence outsiders for group interests, and maintaining or establishing inter-group political relations.
- *Kinship/marriage* refers to maintaining kin alliances, the ability to influence and organize distant kin, supporting extended kin in a single household, marriage for kin alliance, maintaining marriages in the interest of kin group, Having many wives or dependents, and marriage exchange.
- *Dispute settlement* refers to the ability to resolve conflict including miming and comedy to displace tension, mediating fair discourse between individuals, or having demonstrated successful in-group or out-group resolutions.
- *Oratory skill* refers to being able to organize a large group of individuals under a common goal, ability to clearly and eloquently communicate to a crowd.

- *Warfare* refers to being a natural leader in battle, displaying courage on the battlefield, having successfully killed enemies, demonstrating a willingness to go to war and returning alive.

Ritual domain

- *Augury* refers to being able to predict events or catastrophes, the ability to interpret dreams, and foreseeing the future and foreseeing success.
- *Shamanism* refers to successfully healing diseased individuals, possession of supernatural spirits, application of medicinal plants or magical surgical techniques, the use and application of magic for healing purposes, or manipulation of spirit world.
- *Ceremony* refers to displaying ritual leadership or experience, completion of initiation ceremonies associated with puberty or age-set requirements, completion of cultural ceremonies related to situations or needs, membership in elite or secret societies, or the ability to transfer ritual or ceremonial knowledge.

Arts domain

- *Performance* refers to dancing, singing, and story telling ability, in the context of group performance.
- *Craft* refers to producing artistically valued or ornamental items.

Personality domain

- *Self-control* refers to maintaining reservation and control through tense situations, not displacing anger, taking a peaceful approach to many situations, and actively avoiding conflict.

- *Aggressiveness* refers to the ability to express opinions or ideals vehemently when necessary, being able to express discontent without reservation, being forceful or aggressive with others, and gaining respect through aggressive displays.
- *Intelligence* refers to being quick witted and able to make good decisions on the spot, being knowledgeable on a variety of subjects, and displaying contextual knowledge or educational knowledge.

Physical domain

- *Physique* refers to having a sound, strong, reliable body, demonstrating physical endurance and being beautiful.
- *High-sociosexuality* refers to maintaining or having had multiple sexual partners, and fathering many children.

Selected variables from the Standard Cross-Cultural Sample (SCCS) were used in conjunction with status category variables (specifically *shamanism*, *hunting*, *warfare* and *generosity*) from the eHRAF for use in bivariate and multivariate analyses. The SCCS contains over 2,000 variables on 186 specific societies which have been selected because they have been extensively researched and are geographically dispersed to avoid confounds as a result of common ancestry or cultural diffusion (Murdock & White, 1969).

In bivariate analyses Pearson's Chi-Square was used to test if selected independent variables from the SCCS (see Table 2) showed different patterns of response in relationship to related status category dependent variables. When necessary SCCS variables were recoded into binary value labels. Status category groups (value labels) are: presence of status awarded through status category, or no data for status category.

Hunting

It was hypothesized that those societies that award status in the *hunting* status category would show predicted patterns in relation to four SCCS variables: the contribution of hunting to the food supply would be greater than any single source (v9_SCCS_recode2), dependence on hunting would be greater than 25% of the total food supply (v204_SCCS_recode), multiple wives awarded for exceptional skill in hunting (v_867_SCCS_recode), and hunting would be the primary source of subsistence (v1716_SCCS_recode).

Warfare

It was hypothesized that those societies that award status in the *warfare* status category would show predicted patterns in relation to 12 variables from the SCCS: the most important source of political power deriving from warfare wealth (v93_SCCS_recode2), leaders and headmen would have more wives than others (v868_SCCS), internal warfare would be continual or frequent (v891_SCCS-recode), external warfare-attacking would be continual or frequent (v892_SCCS_recode), external warfare-being attacked would be continual or frequent (v893_SCCS_recode), leadership in battle would be informal based on respect (v902_SCCS_recode), there would be a great deal of prestige associated with being a warrior (v903_SCCS_recode), rewards for a man who killed an enemy would be present (v905_SCCS_recode), the value of war and violence against non-members of the group would be high (v907_SCCS_recode), acquisition of land would be present (v911_SCCS), resource acquisition would be a motive for violent conflict (v1727_SCCS_recode), and the prestige of warriors would be high (v1773_SCCS_recode).

Generosity

It was hypothesized that those societies that award status in the *generosity* status category would show predicted patterns in relation to three variables from the SCCS: achieved leadership

through wealth distribution would be very important (v574_SCCS_recode), leaders and headmen would have more wives than others (v868_SCCS), sharing food among all members of the community would be present (v1718_SCCS_recode).

Shamanism

It was hypothesized that those societies that award status in the *shamanism* status category would show a predicted patterns in relation to one variable from the SCCS: medicine men or shamans would have multiple wives (v869_SCCS).

In multivariate analyses linear discriminant function (LDF) was used to determine if groups awarding status for certain status categories (i.e. hunting, generosity and warfare) differed using a series of related SCCS variables. LDF models are able to classify by group membership and identify the variables making significant unique contributions to the discriminating function.

Results:

Descriptive results

Comparing frequency differences between higher-order status domains reveals more general trends in cross-cultural patterns in status attainment. Table 3 displays the frequency distribution by status domain. The economic domain, which includes the seven status categories of *hunting*, *generosity*, *wealth*, *pastoralism*, *technology*, *exchange*, and *horticulture*, accounts for 37.8% (104 of 275 status counts) of the total distribution as the highest-ranking status domain. The second most frequent status domain, politics, accounts for 23.2% (64) of the distribution and includes five status categories, *warfare*, *oratory skill*, *kinship/marriage*, *geographic knowledge*, and *dispute settlement*. The ritual domain, accounting for 18.9% (52), includes *shamanism*, *ceremony*, and *augury*. The physical domain (16), including the status categories of *physique* and *high-sociosexuality*, as well as the arts domain (17), including *performance*, and *craft*, each individually account for 6% of the total distribution. The personality domain, including *intelligence*, *self-control* and *aggressiveness*, accounts for 6% of the sample. The economics and politics domains together constitute 61% of the total distribution in this sample.

Table 4 displays the frequency distribution of status categories. Comparing the 22 status categories, there are four that are clearly more common than the remainder. *Shamanism*, found in 35 of 43 societies, *hunting* found in 31, *generosity* noted in 24, and *warfare*, also noted in 24 societies. Cumulatively these four status categories account for 41% of the total distribution. One-third of the societies in this sample allow for status attainment by way of all of these four status categories, and over two-thirds (67%) of societies award status through at least three. Every society in this sample allows status attainment through at least one of these ‘top-four’ status categories. Although not as frequent as the previously mentioned ‘top-four’, an additional

four status categories are found in at least one-third of the societies in this sample. *Oratory skill* of the politics domain is noted in 15 societies, while *wealth* of the economics domain, *performance* of the arts domain, and *kinship/marriage* of the politics domain are each noted in 14 societies. These eight status categories stand out from the total 22 and together account for 62% of the total distribution.

Bivariate results

Twenty bivariate chi-square tests were performed using status category data with related variables from the SCCS. Of twenty chi-square tests only four produced significant results in the hypothesized direction. All four significant tests were related to status for warfare. Tables 5.1-5.4 show the 2x2 table of these variables. Table 5.1 displays the relationship between the SCCS variable *Prestige Associated with Being a Solider or Warrior* and status category *warfare*. The sample of societies in this test ($n = 25$) was only slightly skewed across the *warfare* status category with 14 awarding status through warfare and 11 societies with no data on status through warfare, and also only skewed across the SCCS variable with 14 societies in which prestige is only minimally associated with warfare and 11 societies in which there is a great deal of prestige associated with warfare. As hypothesized, those societies that award status through the *warfare* status category tended to associate a great deal of prestige with being a warrior, $X^2(1) 9.72, p = .002$.

A similar test produced consistent results. Table 5.2 displays the relationship between the SCCS variable *Prestige of Warriors* and the *warfare* status category. The sample of societies in this test ($n = 18$) was also slightly skewed across the *warfare* status category with 12 societies awarding status through warfare and six societies with no data on status through warfare, and similarly skewed across the SCCS variable with seven societies in which warriors are absent or

prestige of warriors is low and 11 societies in which prestige of warriors is relatively high. As hypothesized, those societies that award status through the *warfare* status category tended to give warriors a high degree of prestige, $X^2(1) 7.48, p = .006$.

Table 5.3 displays the relationship between the SCCS variable *Rewards (Special Gifts, Praises, or Ceremonies, not including ritual purification for a man who killed an enemy)* and *warfare*. The sample of societies in this test ($n = 19$) was highly skewed across the *warfare* status category with 14 societies awarding status through warfare and five societies with no data on warfare, and similarly skewed across the SCCS variable with 15 societies usually or always giving rewards for killing an enemy and four societies rarely or never giving rewards for killing and enemy. As hypothesized, those societies that award status through the *warfare* status category tended to distribute rewards for having killed an enemy, $X^2(1) 6.19, p = .013$.

Table 5.4 displays the relationship between the SCCS variable *Value of War: Violence/War Against Non-Members of the Group* and *warfare*. The sample of societies in this test was only slightly skewed across the *warfare* status category with 14 societies awarding status through warfare and 11 societies with no data on warfare, and similarly skewed across the SCCS variable with 14 societies that highly value war and 11 societies in which warfare is considered a necessary evil. As hypothesized, those societies that award status through the *warfare* status category tended to also place a high value on warfare and violence against non-members of the group, $X^2(1) 6.58, p = .010$.

Multivariate results

Discriminant analyses were used to determine if societies that award status through the *warfare* status category and societies that have no data in this status category differed across various SCCS variables related to warfare. Multivariate analyses included an examination and

comparison of two proposed models. The first of these included seven SCCS variables related to warfare. A second nested-model included five of the social variables, excluding the two measures of external warfare. Table 6.1 presents a summary of the univariate and bivariate analyses of the full model. As can be seen five variables (*Multiple Wives for Leaders, Headman, Chiefs; Frequency of External War – Attacking; Frequency of External War – Being Attacked; Rewards; and Value of War*) showed significant mean differences between the groups. Table 6.2 presents a summary of the univariate and bivariate analyses of the nested model in which three variables (*Multiple Wives for Leaders, Headman, Chiefs; Rewards; and Value of War*) showed significant mean differences between the groups.

The full LDF model had a significant relationship with group membership ($\lambda = .172, X^2(6) = 14.068, p = .029, Rc = .910$). Inspection of the standardized canonical coefficients and structure weights shown in Table 7 reveals that the variables *Frequency of External War – Attacking; Frequency of External War – Being Attacked; Multiple Wives for Leaders, Headman, Chiefs; and Rewards* made unique contributions to the model, which accounted for 82.8% of between group variance and correctly reclassified 100% of the sample (see Figure 1).

The nested model including the five social variables also had a significant relationship with membership of the *warfare* status category ($\lambda = .212, X^2(5) = 13.197, p = .022, Rc = .888$). Inspection of the standardized canonical coefficients and structure weights shown in Table 7 reveals that the variables *Multiple Wives for Leaders, Headman, Chiefs; Rewards; and Value of War* made unique contributions to the model, which accounted for 78.8% of between group variance and also correctly reclassified 100% of the sample (see Figure 2).

In comparing the utility of these two models, it was hypothesized that the nested social model would predict group membership equally as well as the full model. Model comparisons

revealed no significant differences. A test of sphericity revealed that the social model fit the data equally as well as the full model, $X^2\Delta (1) = .871, p < .01$ (Critical $X^2 = 6.635$), and comparing R^2 revealed that the social model accounted for between group variation as equally well as the full model, $F\Delta (2, 5) = .575, p < .01$ (F -critical = 13.3).

Discussion:

These results reveal that shamanism, hunting, warfare, and generosity are clearly the most widespread avenues for status attainment in egalitarian societies. All are highly prosocial and contribute to group welfare. Shamanism includes spiritual and medicinal healing as well as interpreting and interacting with the spirit world. Skilled shamans provide a vital service to afflicted individuals in the community and the most accomplished shamans typically earn a high status position.

Hunting is the major form of protein acquisition and provides an energy-dense, highly preferred food source. Yields from big game hunting are often systematically distributed among the group. In many cases the nutritional status of the group is dependent upon these returns and as a consequence the most skilled providers are awarded great prestige.

Warfare requires the ultimate sacrifice for the group. Displaying courage on the battlefield, having killed many enemies, and willingly defending the group's territory, resources, and honor confers immense prestige among societies with endemic warfare.

Generosity includes displaying kindness, sponsoring feasts and rituals, gift giving, and providing assistance in economic activities. Displaying generosity is a critical component of prestige in many egalitarian societies, and not only leads to high status, but also is often increasingly required to maintain a position of high status.

Although the domains of economics and politics are the highest-ranking status domains, shamanism, of the ritual domain, is the most common status category. This trend can be understood considering that the relative importance of hunters or warriors is dependent on local circumstances, whereas spiritual beliefs and physical ailments are ubiquitous in all human societies. Certain economic status categories, such as *horticulture* and *pastoralism*, and the status

domains of *personality* and *physical characteristics* are not very widespread components of status attainment in egalitarian societies. Interpreting status categories as prosocial explains why certain status categories are more valued, and more frequently connected to status, when compared to others.

Of the 22 status categories 15 meet the criteria for prosociality accounting for 77% of the total distribution. In contrast, 7 status categories—*wealth*, *horticulture*, *pastoralism*, *intelligence*, *physique*, *high-sociosexuality* and *aggressiveness*—(23%) are not prosocial for the most part.

Focusing on the four most frequent status categories, *warfare* and *generosity* are necessarily prosocial activities. *Hunting* is a prosocial activity given the heavily enforced social demands of sharing returns, which is ubiquitous in all societies in this sample (Gurven, 2005). *Shamanism* is prosocial, barring one exception; some shamans are paid directly for their services. However, upon initial investigation it appears this is uncommon or absent in the societies in this sample and shamans are compensated only indirectly through differential prestige and high status in the community.

Non-prosocial activities that lead to status can be classified in two categories: household-level economics, and personal characteristics. *Horticulture*, *pastoralism*, and *wealth* are all status categories that increase household revenue. Success in these activities is highly valuable to members of individual households, but returns from these endeavors do not necessarily benefit the entire community. Wealth based status in egalitarian societies in this sample typically has very little economic significance. This status category refers primarily to ownership of culturally specific prestige goods that are valued symbolically, not economically. In some instances wealth may also be a byproduct of success in more prosocial realms.

Personal characteristics include *aggressiveness, intelligence, physique* and *high-sociosexuality*. Although these qualities, especially *intelligence* and *physique*, may facilitate greater success in prosocial activities they are not intrinsically prosocial themselves. For example, *aggressiveness* may be associated with *warfare*, and *intelligence* with *oratory skill*. Considering the nature of prosocial and non-prosocial activities, and the data of this sample revealing over three-fourths of status counts are prosocial activities, clearly status structures in egalitarian societies are prosocial and when not prosocial status is awarded for household-level investment and expressing ideal or useful personal characteristics.

Significant bivariate and multivariate analyses were exclusively concerning warfare. Two of four significant chi-square results consisted of tautological relationships that offer little explanatory power; patterns of relationship between the *warfare* status category and SCCS variables *Prestige Associated with Being a Soldier or Warrior* (Table 5.1), and *Prestige of Warriors* (Table 5.2) however, these relationships provide confidence in collected ethnographic data on warfare. Patterns of relationships between the SCCS variables *Rewards* (Table 5.3) and *Value of War* (Table 5.4) and the status category *warfare*, suggests that when the group values support inter-cultural violence, the community actively identifies and compensates individuals for prosocial investment through success in warfare. That neither of two variables concerning external warfare (coded as “Continual or Frequent” or “Infrequent”) showed significant relationships with the status category *warfare* suggests that even infrequent warfare leads to prestige systems and status distinctions for warriors.

Multivariate analyses using linear discriminant function identifies the ability of SCCS variables to accurately classify societies by the *warfare* status category (Tables 6.1-6.2). A full model using seven SCCS revealed both measures of external warfare, attacking and being

attacked, contributed to the function with unique contributions. *Value of War* made a significant contribution, however this contribution was not unique. This variable is likely collinear with the other contributing social variables, *Multiple Wives for Leaders* and *Rewards*. The variables *Resource Acquisition as a Motive for Violent Conflict* and *Political Power from Warfare Wealth* did not make a contribution in the full or reduced model. Again these variables may be highly correlated with external warfare or other social variables concerning warfare. In the full model the two measures of external warfare and the variable *Rewards* all have standardized canonical coefficients close to .5, whereas *Multiple Wives* has a standardized weight of .7, making the largest unique contribution to the function. In the reduced model *Value of War* provides the greatest unique contribution (.68), followed by *Rewards* (.66) and *Multiple Wives* (.61). These results suggest that while rates of external warfare are useful in classifying societies by the status category *warfare*, social values and incentive structures are equally as useful. In societies that have continual or frequent warfare and place a high value on war, successful warriors are socially identified through prestige systems involving public rewards. These rewards serve as a signal of prosocial investments by warriors and allow those individuals with the most influence to gain the benefits of high status, such as having multiple wives. It is these cultural and reproductive incentives that shape prestige systems and encourage individuals to pursue high status through success in warfare.

Conclusion:

This research provides a cross-cultural reference from which many theoretical conceptions of status attainment in egalitarian societies may be evaluated. A minimal degree of ascribed, sociocentric statuses, and the ability to earn social rank in egalitarian societies suggests that status attainment will involve multiple strategies through various activities. In this sample 22 defined status categories, and the demonstrated prevalence of *shamanism*, *hunting*, *generosity*, and *warfare*, reveals that status in egalitarian societies is certainly multidimensional cross-culturally (Von Reuden et al., 2008). Status in egalitarian societies is varied, both in the processes of attainment and the realms in which authority applies.

These results confirm that status is frequently attained through skill competition, such as success in hunting, as has been suggested (Barkow, 1989; Smith, 2004; Gurven & Hill, 2009); however, there are other qualities, such as physical strength noted in 12 societies, that impact an individual's status (Von Reuden et al., 2008). The ethnographic details of this sample also support the concept that high status in one realm may confer influence in others, as suggested by Henrich and Gil-White (2001), but also supports Johnson and Earle (1987) that in some societies status is very context specific and individuals are only afforded influence in the areas in which they have reliably demonstrated competence. The most critical application of this research is in supporting theories on status attainment through shamanism, hunting, generosity, and warfare, and that status pursuits are most commonly prosocial in egalitarian settings.

Although Fried (1967) overemphasized the lack of leadership in egalitarian societies he was correct in suggesting that leadership and social status would be achieved through ceremonial participation and success in shamanism, as demonstrated by San shamans. Werner (1981) describes that among the Mekranoti of central Brazil shamanism is perhaps the highest social

position an individual can achieve, and shamans are highly respected for their unremitting investment in the health of the community. Additional researchers, similar to Fried, use the case of the San to illustrate the importance of shamanism in accruing status, and the benefit of reproductive success for high status individuals (Hill, 1984; Johnson & Earle 1987). Shamanism is the most universal form of status attainment in this sample. Status through religious and ceremonial participation may be the most persistent of egalitarian status attainment through cultural evolution and may play an equally important role in traditional stratified societies; however, prolonged contact with missionaries and state-level populations are likely to contribute to a swift erosion of traditional values concerning shamans and indigenous spiritual beliefs (Werner, 1981).

Hunting has played a significant role in shaping many anthropological conceptions of cultural variation, including the nature of status attainment in egalitarian settings (Lee, 1968). Again, Fried (1967) suggests that leadership in egalitarian societies, although limited, is likely to be the privilege of experienced hunters and uses the Netsilik, an Arctic population almost completely reliant on hunted meat for subsistence, as an appropriate ethnographic example. Although egalitarian societies are effective at leveling successful hunters through socially enforced sharing demands (Peterson, 1993; Wiessner, 1996b), the most skilled, yet humble hunters are highly esteemed (Werner, 1981; Johnson & Earle, 1987; Barkow, 1989; Boehm 1999, Henrich & Gil-White, 2001), and afforded numerous social benefits including a reduction in social sanctioning (Boehm, 2008), and increased access to higher quality mates (Hill, 1984; Kaplan & Hill, 1985; Smith, 2004; Marlowe, 2004; Gurven & Von Reuden, 2006). Success in hunting is a cross-cultural path to high status in egalitarian societies and has played an essential role in human biological and cultural evolution (Marlowe, 2004; Kaplan et al., 2000).

Similar to hunting, warfare is an ancient trait that likely predates humanity and remains an important component of status in many egalitarian societies. Both humans and chimpanzees engage in tactical coalitionary violence, which has been a significant selective pressure throughout human evolution (Wrangham, 1999). While the costs and benefits of military victory are varied, prestige and status striving are strong motivating incentives for individuals to pursue warrior hood (Kelly, 2000). Chagnon (1988) explains that military success is commonly cited among the Yanomamö as a marker of quality and value. The pursuit of status through violence and intergroup aggression and the reproductive benefits awarded to warriors has been extensively described among the Yanomamö, who serve as the most common ethnographic example of status through warrior hood in egalitarian societies (Chagnon, 1988). Whether warriors are motivated to engage in combat to defend their own personal honor (Boehm, 1999), or do so to receive reproductive benefits (Patton, 2000), warfare is a commonly cited element of achieving status in egalitarian societies (Werner, 1981; Johnson & Earle, 1987; Von Reuden et al., 2008), and is supported through cross-cultural results of this research.

Although ferocity and combative skill contribute to high status in many egalitarian societies, generosity is equally as common in this sample. Generosity and institutions of sharing have been suggested to be an essential component in maintaining an egalitarian ethos and pooling risk in harsh, unpredictable environments (Wiessner, 1982). Generosity involves direct investment in others, however, the benefits between donor and recipient are multidimensional and generosity can be used to develop economic debts as a form of social insurance as well as a means of achieving status (Hayden, 1996). Price (2003) investigates community investments among the Shuar and illustrates that high status is highly correlated to generosity and altruism. Generosity can have rewards beyond the initial prosocial investment. As a form of conspicuous

display individuals can signal their quality to prospective mates and allies through publicly displaying generous behavior (Bird & Smith, 2005). This research supports theories suggesting generosity is a critical component of achieving status in egalitarian societies (Von Reuden et al., 2008) and illustrates the reciprocal exchange of generosity for high status.

Despite regional variation and differences in subsistence types all egalitarian societies investigated value shamanism, hunting, generosity or warfare, and in many cases societies value success in all four of these activities. The ubiquity of prestige systems based on these behaviors suggest that when status is achieved and rewarded based on personal accomplishments, prosocial behaviors will be selected for as responses to common environmental stressors such as spiritual and physical health, nutritional demands, military defense, and economic equality. Cross-cultural results support theories on status attainment in egalitarian societies that suggest prosocial investment is a frequent strategy for individuals to pursue status (Wiessner, 1996a; Von Reuden et al., 2008). As individuals gain status from prosocial investment, status structures promoting prosociality serve to maintain the egalitarian ethos.

Although prosocial investments are ostensibly altruistic, ultimately these behaviors are a product of selfish strategies aimed at maximizing individual reproductive success. In an egalitarian setting the best strategy for increasing personal welfare and ensuring the success of current and future offspring is to pursue high status through prosocial investments. Smith (2004) presents data from several traditional societies demonstrating a clear correlation between hunting success and reproductive success among men. In these small-scale societies, where hunted meat is shared among the group, the publicly broadcasted distribution of a necessary food source can benefit the hunter through a variety of avenues. Smith (2004) identifies several possible mechanisms that allow for reproductive benefits by hunters who provide food to the group.

Direct provisioning allows the best hunters to better feed their own offspring despite social sanctions on sharing. Dyadic reciprocity allows hunters to enhance beneficial social relationships with the strategic distribution of meat and indirect reciprocity suggests benefits from others can be earned based on a reputation of past prosocial investments. Costly signaling theory argues that a hunter's success is a reliable signal of some underlying phenotypic quality and by broadcasting such superior qualities the signaler will be more attractive as a potential mate. Additionally, there may be latent phenotypic correlations and unknown variables could be simultaneously influencing hunting ability and reproductive success (Smith, 2004). In egalitarian societies better hunters oftentimes have more mates, higher-quality mates, reproduce earlier, and have greater offspring survivorship (Smith, 2004). Although the mechanisms facilitating these benefits may vary, it is clear that in egalitarian societies bearing the extra burden of increased hunting effort and high proficiency in hunting pays off reproductively even though the majority of hunting returns are distributed among the group. Being the best at sharing meat, a prosocial activity, gives the hunter a big reproductive advantage in selfishly perpetuating his own genes.

Prosociality is not simply the best strategy for enhancing reproductive success through status attainment in egalitarian settings; oftentimes it is the only strategy. Boehm (1993) has referred to egalitarian societies as maintaining a reverse dominance hierarchy, in that the collective of individuals at the bottom of the social hierarchy hold power over those at the top. Without rigid social divisions or significant distinctions in wealth, the collective whole can easily sanction and ultimately control those afforded group wide influence. Boehm (1993) provides a cross-cultural survey of 48 societies and illustrates egalitarian societies frequently use public opinion along with criticism and ridicule to curb the esteem of leaders. When leaders become overassertive or self-interested the group will overtly disobey commands, depose authority,

abandon former leaders, and even execute an over-zealous leader who does not prioritize group welfare (Boehm, 1993). The egalitarian ethos strongly resists subjugation and is equipped with several mechanisms to control the power of those granted authority. Prosocial investment is likely the only method to attain and maintain status and continually receive the benefits of high social status in egalitarian settings.

Whereas prosociality seems to be the exclusive route to high status in *egalitarian* societies, it appears to be replaced by selfish strategies in more complex and *stratified* societies (Erdal & Whiten, 1994; Wiessner, 1996a). Prosociality certainly plays some role in all levels of cultural evolution including chiefdoms, kingdoms, and modern traditional and non-traditional societies. However, only in egalitarian societies are prosocial investments so directly connected with status and ultimately greater access to resources. I suspect that once social distinctions become set at birth or based off material wealth, the best strategy for maximizing individual reproductive success is to selfishly guard personal resources and keep valuable resources within the home or among close kin. With independent nuclear families and centralized leadership prosocial investments lose context and the mechanisms to reward prosociality found in egalitarian societies dissolves. Investigating the differences in prosocial investments and rewards for prosociality between egalitarian and stratified societies will potentially reveal the details of how prosociality changes over cultural evolution.

Egalitarianism is held in check through a balance between individuals striving for status and pressures of the collective group geared to resist dominance. These findings reveal cross-cultural patterns of egalitarian values, suggesting a critical component of the egalitarian ethos is promoting and rewarding prosociality with differential prestige and high status. The hypothesis that prosocial behaviors are the primary route to high status, and that prestige will be connected

to prosociality in egalitarian societies is supported through ethnographic data. Developing culturally specific models that predict the nature of prosocial status attainment in various ecological settings will enhance our conception of motivating factors to behave prosocially and begin to explain the adaptability of status structures and prosociality.

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Tables

Table 1: Sample of egalitarian societies from eHRAF

Region	Societies
Africa	Mbuti*, San*, Nuer, Tiv*
Asia	Ainu*, Alorese*, Andamans*, Chuckchee*, Iban*, Ifugao*, Koryaks, Semang*
Oceania	Kapauku, Aranda*, Orokaiva*, Tiwi*
North America	Aleut*, Assinboine, Blackfoot, Chipewyans, Commanche*, Copper Inuit*, Innu*, Navajo, Ojibwa*, Pawnee*, Pomo*, Seminole, Ute
Middle America	Garifuna, Tarahumara
South America	Bororo, Jivaro*, Mataco, Mundurucu*, Ona, Saramaka*, Siriono*, Shipibo, Tehuelche*, Tukano*, Warao*, Yanomamö *

(n = 43)

* Included in SCCS

Table 2: SCCS variables grouped by related status category variable

	<i>Hunting</i>	Value labels	
v9_SCCS_recode2	Hunting-Contribution to Food Supply	1 = "< any single source"	2 = "> any single source"
v204_SCCS_recode	Dependence on Hunting	1 = "<25%"	2 = ">25%"
v867_SCCS_recode	Multiple Wives for Skilled Hunters	1 = "No, not important/not for hunting"	2 = "for exceptional skill in hunting"
v1716_SCCS_recode	Primary Source of Subsistence - Hunting	1 = "Hunting is not the primary source of subsistence"	2 = "Hunting is the primary source of subsistence"
<i>Warfare</i>			
v93_SCCS_recode2	Political Power- Most Important Source	1 = "Warfare wealth"	2 = "Other"
V868_SCCS	Multiple wives for Leaders, Headmen, Chiefs	0 = "No, or unimportant"	1 = "Yes, or Leaders have more wives than commoners"
v891_SCCS_recode	Frequency of Internal War	1 = "Continual or Frequent"	2 = "Infrequent"
v892_SCCS_recode	Frequency of External War – Attacking	1 = "Continual or Frequent"	2 = "Infrequent"
v893_SCCS_recode	Frequency of External War - Being Attacked	1 = "Continual or Frequent"	2 = "Infrequent"
v902_SCCS_recode	Leadership During Battle	1 = "Leadership is absent, or backed by force"	2 = "Informal leader obeyed by respect"
v903_SCCS_recode	Prestige Associated with Being a Soldier or Warrior	1 = "Some, not necessary to be a Warrior to have Influence, or No Special Respect for Man who Fights"	2 = "A Great Deal; Important for every male"
v905_SCCS_recode	Rewards (Special Gifts, Praises, or Ceremonies, not including ritual purification for a man who killed an enemy)	1 = "Rarely or never"	2 = "Yes, usually/always-sometimes"
v907_SCCS_recode	Value of War: Violence/War Against Non-Members of the Group	1 = "Considered a necessary evil, or avoided, denounced or not engaged"	2 = "Enjoyed and has high value"
v911_SCCS	Acquisition of Land: Fields, Hunting/Fishing Territories, Pastures	1 = "Present"	2 = "Absent or not mentioned"
v1727_SCCS_recode	Resource Acquisition as Motive for Violent Conflict Management	1 = "absence of violent conflict"	2 = "resource acquisition motive"

		management, or resource acquisition no motive"	for violent conflict management"
v1773_SCCS_recode	Prestige of Warriors	1 = "no warriors, or low prestige"	2 = "medium to highest prestige"

Generosity

v574_SCCS_recode	Achieved Leadership Through Wealth Distribution	1 = "not important"	2 = "very important"
V868_SCCS	Multiple wives for Leaders, Headmen, Chiefs	0 = "No, or unimportant"	1 = "Yes, or Leaders have more wives than commoners"
v1718_SCCS_recode	Sharing of food	1 = "other"	2 = "sharing of food among all members of local community"

Shamanism

v869_SCCS	Multiple wives for Medicine Men or Shamans	0 = "No, or unimportant"	1 = "Yes"
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Table 3: Descriptive results of status domains

Status domain	Frequency total
Economic	104
Politics	64
Ritual	52
Personality	22
Arts	17
Physical	16
Total	275

Table 4: Descriptive results of status categories

Status category	Frequency count (number of societies)
Shamanism	35
Hunting	31
Generosity	24
Warfare	24
Performance	14
Kinship/Marriage	14
Wealth	14
Ceremony	13
Oratory skill	13
Physique	12
Intelligence	11
Pastoralism	11
Horticulture	8
Technology	8
Exchange	8
Self-control	7
Geographic knowledge	7
Dispute settlement	6
Aggressiveness	4
High-sociosexuality	4
Augury	4
Craft	3
Total	275

Table 5.1: Relationship between *warfare* status category and *Prestige Associated with Being a Soldier or Warrior*

Warfare Status Category	Prestige Associated with Being a Soldier or Warrior		Total
	Some, not necessary to be a Warrior to have influence, or no special respect for man who fights	A Great Deal; Important for every male	
High status through warfare	4	10	14
No data on status through warfare	10	1	11
Total	14	11	25

Table 5.2: Relationship between *warfare* status category and *Prestige of Warriors*

Warfare Status Category	Prestige of Warriors		Total
	No warriors, or low prestige	Medium to highest prestige	
High status through warfare	2	10	12
No data on status through warfare	5	1	6
Total	7	11	18

Table 5.3: Relationship between *warfare* status category and *Rewards (Special Gifts, Praises of Ceremonies, not including ritual purification or a man who killed an enemy)*

Warfare Status Category	Rewards		Total
	Rarely or never	Yes, usually/always-sometimes	
High status through warfare	1	13	14
No data on status through warfare	3	2	5
Total	4	15	19

Table 5.4: Relationship between *warfare* status category and *Violence/War Against Non-Members of the Group*

Warfare Status Category	Value of War		
	Considered a necessary evil, or avoided, denounced or not engaged	Enjoyed and has high value	Total
High status through warfare	3	11	14
No data on status through warfare	8	3	11
Total	11	14	25

Table 6.1: Summary of bivariate and multivariate analyses of status for warfare groups: Full LDF Model

Variable	Group means (std)		F (p)
	High status for warfare	No data	
Political Power from Warfare Wealth	1.80 (.42)	2.0 (.0)	.64 (.443)
Multiple Wives for Leaders, Headman, Chiefs	.70 (.48)	0.0 (.0)	5.92 (.033)
Frequency of External War – Attacking	1.20 (.42)	2.0 (.0)	10.15 (.009)
Frequency of External War – Being Attacked	1.30 (.48)	2.0 (.0)	5.92 (.033)
Rewards (Special Gifts, Praises, or Ceremonies not including ritual purification for a man who killed an enemy)	2.0 (.0)	1.33 (.58)	16.92 (.002)
Value of War: Violence/War Against Non-Members of the Group	1.80 (.42)	1.0 (.0)	10.15 (.009)
Resource Acquisition as a Motive for Violent Conflict	1.70 (.48)	1.33 (.58)	1.23 (.29)

Table 6.2: Summary of bivariate and multivariate analyses of status for warfare groups:
Nested LDF Model

Variable	Group means (std)		F (p)
	High status for warfare	No data	
Political Power from Warfare Wealth	1.80 (.42)	2.0 (.0)	.64 (.443)
Multiple Wives for Leaders, Headman, Chiefs	.70 (.48)	0.0 (.0)	5.92 (.033)
Rewards (Special Gifts, Praises, or Ceremonies not including ritual purification for a man who killed an enemy)	2.0 (.0)	1.33 (.58)	16.92 (.002)
Value of War: Violence/War Against Non-Members of the Group	1.80 (.42)	1.0 (.0)	10.15 (.009)
Resource Acquisition as a Motive for Violent Conflict	1.70 (.48)	1.33 (.58)	1.2 (.29)

Table 7: Summaries of Full and Nested Discriminant Models

Variable	Full		Nested: Social	
	Std. Wts.	Structure	Std. Wts.	Structure
Frequency of External Warfare – Attacking*	-0.573	-0.438	.	.
Frequency of External Warfare – Being Attacked*	-0.547	-0.335	.	.
Resource Acquisition as a Motive for Violent Conflict	0.023	0.153	-0.041	0.174
Political Power from Warfare Wealth	0.043	-0.110	-0.078	-0.124
Multiple Wives for Leaders, Headman, Chiefs* +	0.756	0.335	0.606	0.380
Rewards (Gifts, Praises for man who killed an enemy) *+	0.555	0.566	0.663	0.643
Value of War: Violence/War Against Non-Members of Group* +	-	0.438	0.685	0.498

*significant ANOVA in full model
 +significant ANOVA in nested model

Bolded values (+-3) interpreted

Figures

Figure 1: Discriminant function of full model

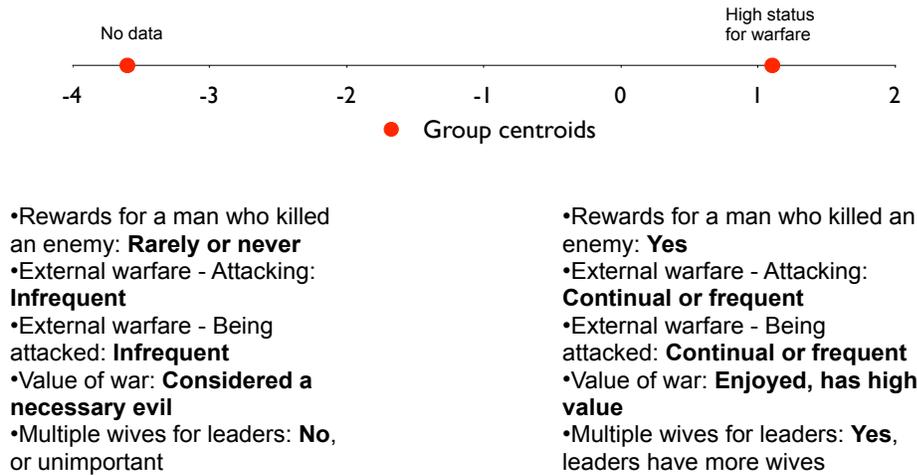
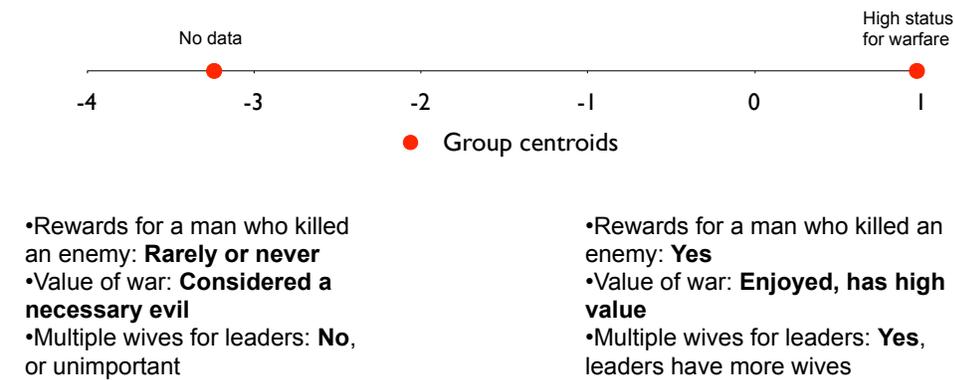


Figure 1: Discriminant function of nested model



Appendix 1: Table of OCM Codes used in eHRAF searches

Code Number	Label
156	SOCIAL PERSONALITY
157	PERSONALITY TRAITS
181	ETHOS
183	NORMS
185	CULTURAL GOALS
224	HUNTING AND TRAPPING
226	FISHING
431	GIFT GIVING
463	MEDIUM OF EXCHANGE
474	COOPERATIVE ORGANIZATION
476	MUTUAL AID
533	MUSIC
535	DANCE
537	ORATORY
554	STATUS ROLE AND PRESTIGE
555	TALENT MOBILITY
556	ACCUMULATION OF WEALTH
557	MANIPULATIVE MOBILITY
558	DOWNWARD MOBILITY
571	SOCIAL RELATIONSHIPS AND GROUPS
574	VISITING AND HOSPITALITY
575	SODALITIES
576	ETIQUETTE
577	ETHICS
593	FAMILY RELATIONSHIPS
602	KIN RELATIONSHIPS
622	COMMUNITY HEADS
626	SOCIAL CONTROL
663	PUBLIC SERVICE
728	PEACEMAKING
755	MAGICAL AND MENTAL THERAPY
756	SHAMANS AND PSYCHOTHERAPISTS
758	MEDICAL CARE
791	MAGICIANS AND DIVINERS
792	PROPHETS AND ASCETICS
828	ETHNOPSYCHOLOGY
851	SOCIAL PLACEMENT
854	INFANT CARE
888	STATUS AND TREATMENT OF THE AGED

Appendix 2: Status domain & status category definitions

Status domain	Status category	Operational definition
Economic	Hunting	Displayed competence in hunting. Reliably providing protein from wild game for distribution.
	Technology	Proficiency in specialized manufacturing of tools or functional products such as, arrows, crafted tools, canoes, etc. Displaying superior mechanical skills.
	Exchange	Maintaining exchange relationships with specific distant kin or allies. Formal gift giving between families during visits. Debts stored through property loans. Success in trading.
	Horticulture	Success in growing food, producing surpluses of staple crops, consistently yielding good harvests. Gathering wild plant foods. Includes skill in tree felling and maintaining possession of land in forest in swidden agriculture.
	Pastoralism	Owning domesticated animals for production, transportation, or slaughter. Successfully stealing horses, and maintaining a herd.
	Wealth	Accruing culturally specific luxury goods, such as rare or liquidable assets, through travel or trade. Owning a high quality dwelling. Owning symbolically or economically valued items. Owning slaves.
	Generosity	Displaying kindness through throwing feasts, giving gifts. Self-depreciation. Distributing resources or property among the group. Providing voluntary assistance in economic activities.

Status domain	Status category	Operational definition
Politics	Geographic knowledge	Knowing the homeland well. Being able to predict or identify resources well. Traveling to foreign lands. Pioneering new territory. Possessing knowledge of the outside world. Traveling in dangerous, life threatening conditions successfully. Ability to influence outsiders for group interests. Maintaining or establishing inter-group political relations.
	Kinship/marriage	Maintaining kin alliances. Ability to influence and organize distant kin. Supporting extended, relatively large, kin in a single household. Marriage for kin alliance and prestige. Maintaining marriages in the interest of the kin group. Having many wives or dependents. Marriage exchange.
	Dispute settlement	Ability to resolve conflict. Includes miming and comedy to displace tension, mediating fair discourse between individuals, having demonstrated successful in-group or out-group resolutions.
	Oratory skill	Being able to organize a large group of individuals under a common goal. Ability to clearly and eloquently communicate to a crowd.
	Warfare	Being a natural leader in battle. Displaying courage on the battlefield. Having successfully killed enemies. Willingness to go to war, and returning alive.
Ritual	Augury	Being able to predict events or catastrophes. Ability to interpret dreams. Foreseeing the future and foreseeing success.
	Shamanism	Successfully healing diseased individuals, and possession of supernatural spirits. Application of medicinal plants, magical surgical techniques. Use and application of magic for healing purposes, or manipulation of spirit world.

Status domain	Status category	Operational definition
	Ceremony	Displaying ritual leadership or experience. Completion of initiation ceremonies associated with puberty of age-set requirements. Completion of cultural ceremonies related to situations or needs. Membership in elite or secret societies. Ability to transfer ritual or ceremonial knowledge.
Arts	Performance	Dancing, singing, and story telling ability, in the context of group performance.
	Craft	Producing artistically valued, or ornamental items.
Personality	Self-Control	Maintaining reservation and control through tense situations, not displacing anger. Taking a peaceful approach to many situations, and actively avoiding conflict
	Aggressiveness	Ability to express opinions or ideals vehemently when necessary. Being able to express discontent without reservation. Being forceful or aggressive with others. Respect through aggressive displays.
	Intelligence	Being quick witted and able to make good decisions on the spot. Knowledgeable on a variety of subjects. Contextual knowledge, educational knowledge.
Physical	Physique	Sound, strong, reliable body. Physical endurance, beauty.
	High-sociosexuality	Maintaining or having had numerous sexual partners. Fathering many children.