

**Asymmetry in male and female storyteller priorities: an analysis by gender of a sample of published folk narratives collected from storytellers worldwide**

*Abstract:*

The folk narrative is a largely untapped resource with the potential to address fundamental questions about human culture and cultural changes on anthropological timescales. The methodology developed in this paper is used to analyze the gender of protagonists in folk narratives as related to the gender of storytellers. Using grammatically defined units and a representative data set of 1640 published folk narratives collected from storytellers, the differential representation of female folk narratives is quantified. Independently reproducible results indicate a pronounced asymmetry in male and female priorities: male storytellers tell predominantly male tales and female storytellers include a balance of genders in their tales. A search for a similar asymmetry in other theoretical and experimental work identifies an alignment with prior anthropological research. This work combined with a review across multiple fields suggests that a useful societal model would be a model based on degrees of cooperation between genders.

Key words: folktale, gender, cultural evolution, cooperation, matriarchy

Oral Literature is like an information storehouse – a pre-literate library. Its tomes encompass everything from overarching universals to personal and highly individualized

information exchange. For Freudian psychologist Bruno Bettelheim, the tale “Hansel and Gretel” was about oral greed and dependence (Bettelheim 159-166; Zipes, Complete Grimm 58-63). For Sociohistoricist Jack Zipes, the tale “Rumpelstiltskin” reflected the change in control of female productivity during the Industrial Revolution (Zipes, Rumpelstiltskin). Philosopher Ernst Bloch saw the fairy tale as a challenge to “consider yourself as born free and entitled to be totally happy...”(167). The wealth of the folk narrative as an information storehouse is even more apparent when one considers the wide range of fields which have studied the folk narrative: psychology (Ex: Bettelheim; Von Franz), history (Ex: Bottigheimer; Zipes, Rumpelstiltskin), archaeology (Ex: Bahr, Short Swift; Flood), anthropology (Ex: Dundes, Folklore, Thompson), literature (Ex: Luthi; Rose), philosophy (Ex: Bloch), folk and fairy tale studies (Ex: Stone; Tatar), women’s studies (Ex: Haase, Fairy Tales; Zipes, Don’t Bet), and in an evolutionary context (Ex: Boyd; Sugiyama). This paper develops a methodology to elicit data from the folk narrative for large scale, worldwide analyses designed to explore questions about human culture and the evolution of human culture.

The folk narrative system is a unique resource because it has the potential to track cultural adaptations worldwide as well as to investigate issues on anthropological time scales. Tales have been collected from all types of societies and there is a large treasury of folk narratives which has been collected over the past 200 years. There is a data base large enough to accommodate worldwide cultural surveys as well as surveys which use folk narratives from hunter-gatherer, pastoral, agricultural and industrial societies to explore questions about the evolution of culture. Many scholars have analyzed individual tales or groups of tales however the resource as a whole entity remains untapped.

“So far as the anthropologists are concerned...while it has been customary over a long period to collect a representative sample of the oral narrative of the people they happen to be studying, it is an open secret that, once recorded, very little subsequent use may be made of such material. Indeed, these archival collections, once published, often molder on our shelves waiting for the professional folklorist, or someone else, to make use of them in a dim and uncertain future,” (Bascom 279).

Although some studies have been conducted using the folk narrative to analyze evolutionary issues, methodology is a serious issue. Without thorough consideration of ethnological research and critical analysis regarding the collection of folk narratives, a data set is likely to have ascertainment bias. For example, in folklore, folktale, and fairy tale studies there is a large body of research documenting that retold tales are more representative of the mindset of the authors and of the authors' times, than representative of the original culture (For Example: Dundes, *Fairy tales* 260-61; Haase 2010; Naithani 19; Stephens 3-4; Zipes *Happily*, 41-53). Retold tales are narratives that have been inspired by folk narratives but which are written by an author (See Andersen 1887). On the other hand, scholarly volumes of collected tales credit the collector and the storytellers and sometimes the translators. The tales have often been translated from tape recordings of storytelling sessions and sometimes line by line transliterations and translations of texts are also given. This attention to detail not only preserves the tales but also helps to approximate the oral verbalization of the teller. In the case of collected tales, the quality of the source can best be evaluated by whether the collection makes clear the “web of relationships involving narrators, collectors, editors and translators...” (Haase 2010). Therefore, in any cross-cultural analysis if the tales are meant to represent different cultures, the inclusion of retold tales in the data set would compromise the results. (Ex. Gottschall 2008).

The overall aim of this paper is to develop a careful approach to the quantitative analysis of the folk narrative system. The methodology aims to be well grounded in an understanding of the folk narrative but also pertinent to fields such as anthropology, folklore and sociobiology. The hypotheses are tightly defined, the analysis is based in concrete details and the results are specific. Thus the analysis progresses "...through discussion of specific traits, rather than through some overall description of culture. Biological evolutionary theory has generally developed along the same lines: specific features of an organism, rather than the whole organism, have been the focus of attention," (Cavali-Sforza 69). Henrich et al suggest that one will have to consider "a longish list of psychological, social and ecological processes" in order to reach a "full-fledged theory of cultural evolution" (Henrich 129). Accordingly, this paper is intended as the first of many detailed, quantitative studies of the relationships among different parts of the folk narrative system. When combined, it is possible these studies will not only give us a better understanding of the folk narrative system itself, but also give us a better understanding of how that system works in the context of human cultures and in the context of changes in human culture over anthropological time.

In this paper, it is suggested that a carefully constructed methodology can elicit data from the folk narrative system. It is hypothesized that in a worldwide sample of folk narratives, there is a relationship between the predominant gender represented in a tale and the gender of the storyteller. If there is a gendered influence by storytellers, then there will be a difference in number of predominantly male and female characters in narratives reproduced by male versus female storytellers. This requires firstly, the careful construction of a methodology.

### ***METHODOLOGY: UNITS***

In a quantitative method that examines folk narratives for cross-cultural information, two key items can significantly shape the results of the investigation: the units chosen and the data set.

Units are man-made categories. The units used in standard content analysis consist of the researcher's definitions, questions, evaluation guidelines and evaluations made by research assistants (Ex: Whyte 1978). However a study can also use a countable, universal unit as long as this unit can operate cross-culturally and conveys information. This study uses the gender of the storyteller and compares that with the gender of the tale. The gender of the tale is defined by counting the gender of all nominative case words (subjects) in the tale.

Nominative case is a countable, independently defined, grammatical unit and linguists have determined that nominative case is universal - every language has nominative case (Greenberg; Hockett; Jackobsen). Nominative case nouns and pronouns of simple and compound sentences and of main and subordinate clauses are counted. Take the following sentence for example: "Once upon a time there was a bedouin chief who had a son, but he was lazy and feckless," (Hejaiej 133). This would be counted as three male nominative cases. "Chief" is the subject of the verb "was." "Who" refers to the chief in the main clause and is the subject of the verb "had" in the relative clause "who had a son." "He" is the subject of "was" in the dependent clause "but he was lazy and feckless." (For more detail see Ragan, What Happened). Where the fraction of female nominative cases in a tale exceeds  $2/3$ , the tale is denoted a Female tale. Where the fraction of male nominative cases exceeds  $2/3$ , the tale is denoted a Male tale. Thus a discrete threshold (over  $2/3$ ) of countable units (subjects) is established to define the gender of a tale. "Any continuous trait may be transformed into a

discrete...one by the introduction of thresholds along the continuous scale of measurement”  
(Cavalli-Sforza 73).

At  $2/3$  majority, the dominance of one gender is clear, increments of one third provide a level of precision appropriate for the data set, and differences are observable. The  $2/3$  threshold definition of Female and Male tales also means that a counting error of one nominative case does not shift a story from the Female to the Male category. To make sure that the whole spectrum of tales is included in the analysis, two analyses have been conducted, one using two categories: Male tales (M) and Female tales (F) and another analysis using three categories: Male tales (M), Female tales (F), and MF tales in which neither gender reached the  $2/3$  majority of subjects.

This paper’s assumption that frequency of one gender in nominative case is an appropriate tool to measure which gender the tale is “about,” is based on the standard grammatical definition of the “subject of a sentence.” “The subject of the sentence has a close general relation to ‘what is being discussed’...” (Quirk 11). Therefore if over  $2/3$  of the subjects in a tale are of one gender, it is logical to say that that particular gender has a close general relation to ‘what is being discussed.’ Hence the designation of a “Female” or “Male” tale.

Given the scope of a worldwide survey, tales in English and tales translated into English have been used. Every culture has males and females, this is a biological human universal and therefore transcends individual cultures. However, not all languages have gendered pronouns. For example in German, the neuter word “das Mädchen” means “girl” and the nominative case pronoun for girl, in English “she,” would also be neuter in German “es.” However, every culture denotes female and male, so the German girl, Little Red Riding Hood for example, would have a name and context or title that would denote her as a female regardless of the neutral pronoun. In addition, any person translating a German story about a “Mädchen” into English would not use

the neuter “it” but the appropriately gendered pronoun “she” in the nominative case, since English pronouns do denote male and female genders in nominative case. Therefore gendered nominative case is countable, universal and carries some specific information across cultures.

The gender of all nominative cases in every tale has been counted. On the basis of the count, each tale was assigned a gender: M (Male), F (Female) or MF (neither M nor F reaches the 2/3 majority). The gender of every tale has been recorded along with the gender of the storyteller and the gender of the collector for that tale. For example, tale # 1 in "The Folktales of Egypt" (El Shahmy 3-14) is classified as MM M (Male Collector, Male Storyteller, Male tale).

#### ***METHODOLOGY: DATA SET***

The data set is a crucial component of any quantitative analysis. If one aspires to use tales to examine ancient and worldwide cultural developments, one must address the quality of the data’s source as well as the number and distribution of cultures represented.

Because the presented method uses details as its data, it is important that the details of the examined tales reflect the society of origin as accurately as possible. Given the worldwide context, translated tales must be used. Scholarly anthologies of collected tales are the preferred resource since these anthologies can be considered the closest approximation of the original cultures given the scope of the survey (Dundes 1989b: 259-260). Collected/translated tales should not be confused with retold tales and retold tales should not be used (Dundes, *Fairy Tales* 265; Haase, *De-colonizing*).

One must not only use quality sources, but one must also include a creditable representation of world cultures. For the compilation of a representative worldwide sample, the

Standard Cross-Cultural Sample, hereafter the SCCS, lists 186 societies which are “relatively equally distributed among the six major regions of the world,” (Murdock, Standard 6). The six major regions are: Sub-saharan Africa (A), Circum-Mediterranean (C), East Eurasia (E), the Insular Pacific (I), North America (N) and South America (S). In the SCCS, certain societies were selected to represent various areas within the six regions. This selection was based on issues such as superiority of ethnographic coverage or the society’s distinctiveness in language, economy or political organization (Murdock, Standard 6).

In 1981, Murdock constructed a systematic sub-division of the six large regions (Murdock, Atlas). He divided each large region into twenty-five culture groups. These subdivisions were based primarily on geographic proximity and language families and are mostly ordered in geographically adjacent units. Thus if one uses Murdock 1981, one may select societies from these regions for a valid sample. One need not use the societies Murdock listed in the SCCS or listed in the Atlas, but may put together one’s own data set using Murdock’s regions. Thus one can compile a representative sample still based in Murdock’s ethnological classification system. It is important to note that the author has assembled a data set using the six regions and subdivisions from Murdock 1981, but not Murdock’s specific societies. For example, in group N 01, the author has used tales from different Inuit tribes than Murdock used, but all Inuit used in this study come from the same latitude and longitude region and the same language group as those in Murdock’s N 01 (Murdock, Atlas 61-62). Because the tribes listed in the SCCS fall within the regions of Murdock’s Atlas, it is still possible to compare data with studies which use the SCCS. This paper operates at the level of Murdock’s six large regions and within each of the six regions and each is represented by multiple collections, multiple of Murdock’s sub-divisions are also represented in each of the large six regions. (See Appendix A.)



This paper's results are not yet specific to Murdock's individual sub-divisions or to individual cultures.

The use of Murdock's cultural regions ensures a degree of equitable worldwide representation. In addition, the use of an independently defined classification system which is carefully designed to create a representative worldwide sample sets a standard by which all worldwide surveys of folk narratives can be assessed. The level of credibility is proportional to the data set's conformity with the number and spread of Murdock's stipulated sample. In the field of anthropology, Murdock's representative worldwide sample is the standard which makes cross-cultural research viable, enables the comparison of various cross-cultural studies and enables one to assess the credibility of results from various studies. Murdock's work can serve the same purpose in the large scale study of the folk narrative system.

There were four parameters this study worked within: Murdock's culture areas, whether the genders of the collector and storytellers were given in the source, the representation of both male and female collectors and storytellers, and the availability of folk narratives from the cultures. All collections in the study met these criteria. Within these parameters, the tale selection was random.

This study comprises 1640 tales, 353 different storytellers - 232 male and 121 female – from 46 different tribe/locations which represent 30 of Murdock's culture groupings. There are multiple representatives from each of Murdock's six large regions: Africa: 92 tales, Circum Mediterranean: 303 tales, East Asia: 146 tales, Insular Pacific: 336 tales, North America: 540 tales, South America: 203 tales. (See Appendix A.) The specificity of this study comprises the six large regions but the goal of future studies is to include each of Murdock's smaller cultural groupings as well as a test of statistical significance.

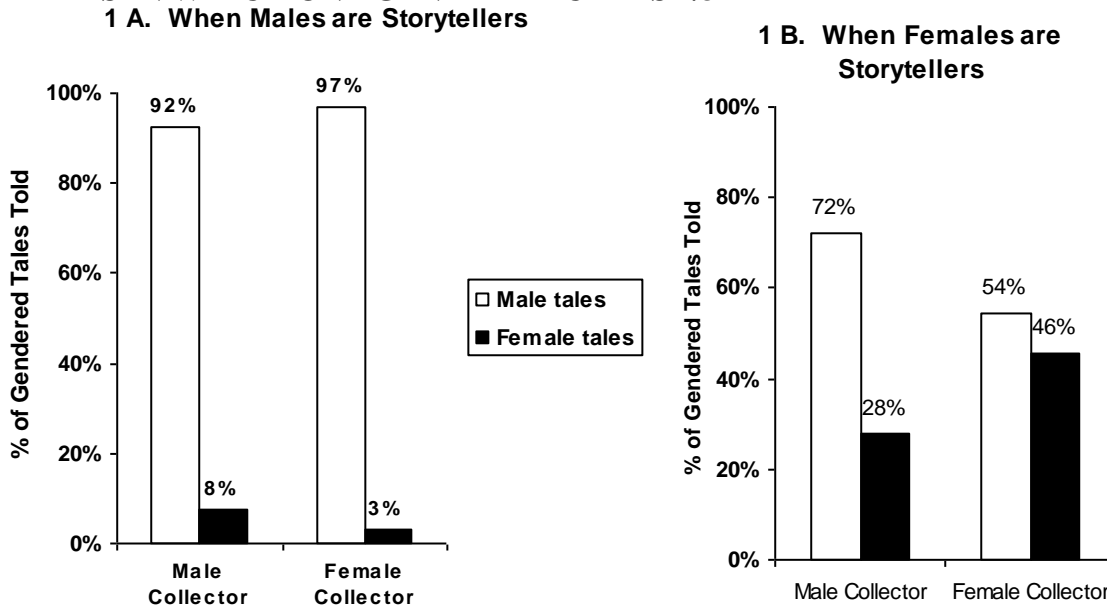
This study examines the relationship between the storyteller and the tale in the context of gender. There are four categories: Male collector Male storyteller (MM), Male collector Female storyteller (MF), Female collector Male storyteller (FM) and Female collector Female storyteller (FF). The Collector is held constant in order to analyze the relationship between the gender of the storyteller and the gender of the tale. Thus MM tales are compared to MF tales to see what fraction of male and female tales are told by male and female storytellers to a male collector. FM tales are compared to FF tales to see what fraction of male and female tales are told by male and female storytellers when told to a female collector.

## ***RESULTS***

### ***Analysis I: Tales in which one gender, male or female, exceeds two thirds of the nominative cases in a tale.***

When examining tales with over  $2/3$  nominative case of one gender, one considers tales in which the number of male nominative case (subjects) exceeds  $2/3$  of all subjects in the tale (M tales) and one considers tales in which the number of female nominative case (subjects) exceeds  $2/3$  of all subjects in the tale (F tales). In this category, male storytellers told 92% M tales to male collectors and 97% M tales to female collectors. Female storytellers told 72% M tales to male collectors and 54% M tales to female collectors (see Figure 1A and 1B).

## 1. TALES IN WHICH ONE GENDER EXCEEDS 2/3



**Caption: Graph 1 A and B:** The percentage of gendered tales as told by male storytellers (1A) and female storytellers (1B). The gender of the collector is kept constant. Therefore, for example, the percentage of male and female stories by male storytellers as collected by male collectors is separate from but immediately next to the percentage of male and female stories by male storytellers as collected by female collectors. Likewise, the gender of the collector for the female storytellers is kept constant.

When telling tales to male collectors and to female collectors, males tell predominantly M tales: 92% and 97% M tales. Females tell a different fraction of tales. When females tell tales to female collectors, the female storytellers tell almost equal numbers of M and F tales: 54% M tales and 46% F tales.

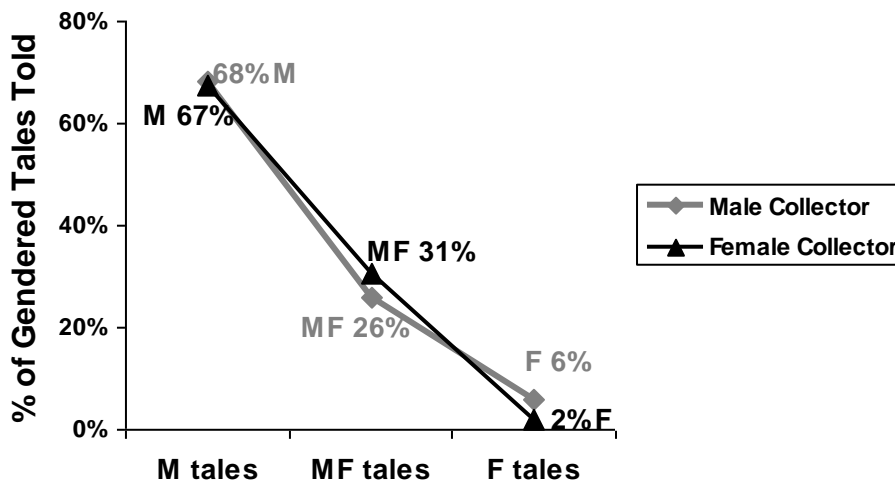
In summary, male storytellers tell predominantly M tales. Female storytellers tell a more equal fraction of M and F tales.

*Analysis II: All tales*

When one uses a 2/3 threshold, not all tales have enough subjects of one gender to cross the 2/3 threshold and to fall into the category of an M tale or an F tale. Some tales are mixtures, MF tales. Therefore this category includes male tales (M), female tales (F) and male/female (MF) tales. When one includes MF tales in the analysis, males again tell predominantly M tales.

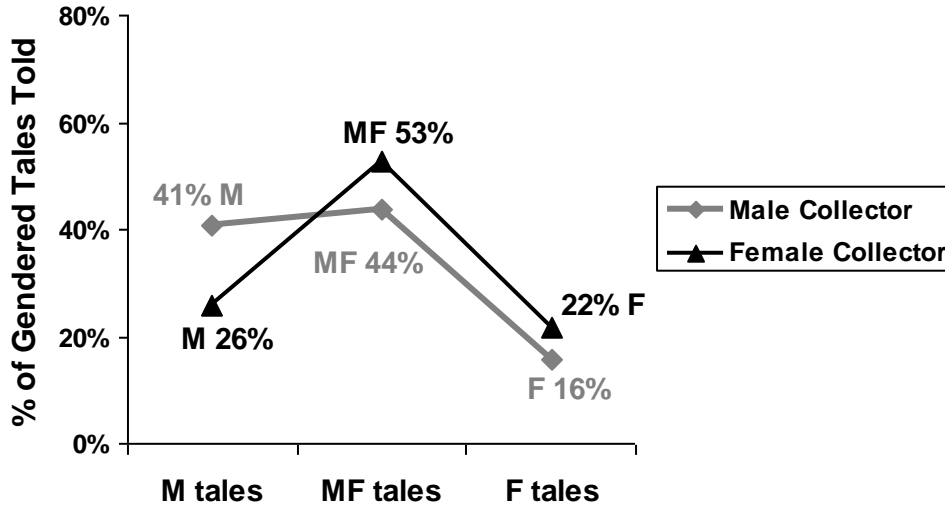
Males tell about the same percentages to male and female collectors. When telling tales to male collectors, male storytellers tell 67% M tales, 26% MF tales and 6% F tales. When telling tales to female collectors, male storytellers tell 68% M tales, 31% MF tales and 2% F tales. (see Figure 2).

## 2. All Tales: When Males are Storytellers



**Caption: Graph 2:** The percentages of gendered tales including male (M), male/female (MF) and female (F) tales of male storytellers. The gender of the collector is kept constant therefore there are two lines on each graph. The grey denotes tales collected by a male collector. The black denotes tales collected by a female collector.

### 3. All Tales: When Females are Storytellers



**Caption: Graph 3:** The percentages of gendered tales including M, MF and F tales of female storytellers. The gender of the collector is kept constant therefore there are two lines on each graph. The grey denotes tales collected by a male collector. The black denotes tales collected by a female collector. Notice the significantly different shapes of the graph of female storytellers compared to the graph of male storytellers.

When males are the storytellers, males tell more M tales than F tales or MF tales. When males tell tales to either male or female collectors, whether one counts the M and F categories, or the M, MF and F categories, males tell predominantly M tales.

Female storytellers tell a different fraction of tales. Female storytellers tell more MF tales than either M or F tales. When telling tales to a male collector, female storytellers tell about 44% MF tales, 41% M and 22% F tales. When telling tales to a female collector, female storytellers tell about 53% MF tales and an almost equal percentages of M and F tales: 26% M and 22% F tales (see Figure 3). The selection of tales told by Female storyteller is more gender-balanced.

In summary, Males tell predominantly M tales: 67 % - 68% M tales, 26% - 31% MF tales, 6% - 2% F tales. Females tell predominantly MF tales and when females tell tales to female collectors, the females tell an almost equal fraction of male and female tales: 53% M/F tales, 26% M tales, 22% F tales.

The FF category represents female choice of tales in both the storyteller and the collector categories. It also has the same gender between the categories. In other words, the situation is inherently female oriented. The results show that female storyteller priorities are expressed in a more balanced representation of both genders. In the results in the FF category this is seen in two ways: Tales inclusive of both genders, MF tales, predominate at 53%. In addition, the percentages of tales about each gender, M tales and F tales, are also almost equal to each other: 26% M and 22% F tales. The female storytellers exhibit a balance of gender in sentence subjects.

## *DISCUSSION*

When working with a methodology that reduces the analysis of human culture to such specific parameters, it is important to keep the parameters of this simplification in mind. It has already been established that in a random set of tales there is a relationship between the gender of the tale and the gender of the teller (Ragan, What happened). The results of the current paper indicate that there is a quantifiable asymmetry between male and female storytellers in the context of gender: When male storytellers express their priorities, they tell predominantly Male tales; when female storytellers express their priorities, they do not tell predominantly Female tales, they tell a more gender-balanced set of tales. This result can be used to describe the folk

narrative system as a cultural phenomenon. However, it is also reasonable to expect that general qualitative conclusions be drawn from the quantitative analysis (Cavali-Sforza 70). One expects an understanding of the implications of the result as it relates to the larger picture of human culture. In order to draw general qualitative conclusions from the asymmetry quantified in this paper, the author conducted a search in the fields of folk and fairy tale research, folklore, anthropology and sociobiology to place this finding in the context of other research and to determine whether a comparable asymmetry had been detected.

### ***OBSERVATIONS FROM OTHER FIELDS***

In Folklore, Folk and Fairy tale research, scholars have noted that males and females have repertoires that differ along gender lines. Benedict related the “contrast between tales told by men and by women” and focused on content. “Men tell tales which feature...stick races...gambling...and of hunting. Women tell those which detail cooking techniques...the Cinderella story...childbirth...” (XL-XLI) For his major work, “The Interpretation of Fairy Tales,” Holbek used a collection of 700 tales from one county in Denmark. Holbek’s theory dealt with thematic content, but in a few paragraphs, Holbek noted that males tell 87.7% masculine tales and 12.3% feminine tales, while women tell 54.1% masculine and 45.9% feminine tales. (168). For her article, “Sex Role Reversals, Sex Changes, and Transvestite Disguise in the Oral Tradition of a conservative Muslim Community in Afghanistan,” Mills used a set of about 450 narratives collected in and around Herat and Kabul, Afghanistan. Mills remarked on the asymmetry in male and female storyteller repertoires. She noted that males tell 86% masculine tales, 11% feminine tales and 3% tales with both male and female main

characters, while females tell 48% masculine, 49 % feminine and 3% tales with both male and female main characters (187). Neither Holbek nor Mills used a clear definition of masculine and feminine tales and each used a set of tales from a very small area. However their findings resulted in the detection of an asymmetry that closely mirrors the results of this paper's analysis of M and F tales.

A survey by anthropologist Peggy Sanday done in 1978 also showed evidence that female priorities are expressed in a balance of male and female rather than in dominance of females (Sanday, Female 189-206). Sanday conducted a small scale statistical analysis exploring subsistence contributions and women's status. Sanday concluded that in societies where females' contribution to subsistence is either very high or very low, female status is low. Where there is a more equal contribution to subsistence by both males and females, the status of females is higher. Therefore, a similar asymmetry to that in folk narratives is found in that the expression female priorities relates to a balance of gender.

In 1981 Sanday began her study of the Minangkabau in Indonesia. The Minangkabau call themselves "Minangkabau matriarchaat," using the Dutch word for matriarchy. After 20 years Sanday was convinced that the definition of matriarchy should be challenged and that matriarchy as the opposite of patriarchy was an "imaginary, empirically empty social form" (Sanday, Women xi). Sanday stated, "Female power cannot be defined in terms of female domination and male subordination. Rather one finds interdependence and autonomy in both male and female domains..." (Sanday, Women 46). Sanday found that gender balance is important in the matriarchy she studied. "Neither the maternal nor the paternal is left out" (Sanday, Women 234). Sanday's in-depth study indicated that female priorities are expressed in a balance of the genders and in cooperation rather than in dominance.



The evidence from the folk narrative does not prove or disprove the theory that matriarchies exist as cooperative societies rather than as female dominated societies. However, accumulating evidence in multiple fields suggests that a cooperative model for defining societies should be tested.

Whyte's book *The Status of Women in Preindustrial Societies* used a data set which comprised 93 preindustrial cultures. Whyte's study analyzed 52 questions regarding women's status such as: "#3 Sex of shamans" and "#40 Wife to husband institutionalized deference" (52 and 65). The patterns of association among these 52 items were then examined to see if general cross-cultural patterns would emerge. Whyte stated, "There have never been any true matriarchies" (6). Whyte concluded: "Our findings do lead us to doubt that there are any cultures in which women are totally dominant over men" (167). The underlying assumption in Whyte's organizing framework was a societal model of male-dominated versus female-dominated. Many of Whyte's results were categorized on a scale from male dominance to female dominance. For example:

"Mythical Founders of the Culture:

1. All were male
2. Both sexes, but the role of men more important
3. Both sexes, and the role of both sexes pretty equal
4. Both sexes, but female role more important, or solely female
5. No such myth, or no information" (51).

However, given the asymmetry in the folk narrative and in Sanday's anthropological research, female priorities may best be perceived when looking at a model based on cooperation. This begs the question: What societal model would enable one to perceive both male and female

priorities? The asymmetry in male and female priorities as shown by my analyses of folk narratives inspired me to revisit Whyte's data and rethink the organization of Whyte's work. I reorganized the data on a continuum from cooperation to dominance rather than on a continuum from male dominance to female dominance.

To track cooperation in Whyte's material required a major rethinking of the material. Not all of Whyte's data is able to be included. Sometimes the style of question elicited an answer that could not be examined for cooperation, for example: the age at first marriage (79). Other questions are not included because of the subjective nature of the question, as in number 52 which asked for the ethnologists' views (88). Question 20 about domestic work (68) is not included because it conflated three elements which were included in other questions.

Whyte analyzed 52 questions and 18 lent themselves to reorganization along a scale of cooperation: Equal Cooperation, Some Cooperation and No Cooperation (i.e. dominance of one gender). The results of the reorganization indicate that over 50% of the examined cultures showed basically equal cooperation in 8 of the 18 categories. There are four categories in which over 50% of the examined cultures show dominance of one or the other gender. These categories indicate male dominance in warfare, family leadership and politics and female dominance in authority over infants (see Table 1).

**Table 1: Whyte's Results as Newly Organized Through the Lens of Cooperation (Whyte 1978)**

Whyte #	Title	Equal Co-op	Some Co-op	No Co-op
DV 6	<i>Funeral ceremonies</i>	<b>87</b>		13
DV 35	<i>Ease of divorce</i>	<b>77</b>	17	5
DV 10	<i>Contribute to subsistence</i>	<b>75</b>	23	4
DV 36	<i>Ease of marriage</i>	<b>75</b>	25	
DV 11	<i>Time used in subsistence</i>	<b>61</b>	39	
DV 29	<i>Voice of bride and groom</i>	<b>58</b>	38	5
DV 39	<i>Authority over older child</i>	<b>50</b>	33	16
DV 1	<i>Sex of gods</i>	<b>50</b>	36	13
DV 5	Participation in collective Or religious ceremonies	38	56	6
DV 3	Sex of shamans	36	46	19
DV 16	Owens dwelling	35	35	31
DV 28	Arranges marriages	35	50	16
DV 4	Sex of witches	34	43	24
DV 15	Inheritance	31	44	25
DV 2	Mythical founders	31	35	34
DV 38	<i>Authority over infant</i>	16	31	<b>54</b>
DV 8	<i>Family leadership</i>	6	10	<b>84</b>
DV 7	<i>Political leaders</i>		13	<b>88</b>
DV 9	<i>Participation warfare</i>		12	<b>89</b>

The asymmetry of male and female priorities observed in folk narratives, plus observations from other fields of study, plus the new view of Whyte's material suggest that an effective societal model, which would capture both male and female priorities would be a model based on a continuum from high cooperation to low cooperation / dominance of one gender.

### *DISCUSSION*

For years anthropologists, folklorists have assiduously collected folk narratives from storytellers all over the world. For years, it has been apparent that folk narratives store information in various ways and on many levels. This paper uses a specific characteristic, gender, that operates at many levels within the folk narrative system. Because there is a relationship between the gender of the teller and the gender of the tale, the culture and the cultural artifact, the teller and the tale can be examined as parts of the same large interacting system. The folk narrative system has many parts which include but are not necessarily limited to: the storytellers, collectors, editors, translators, audiences, the time of day, the time of year and the place in which the tales are told. (Ex. Bahr, Introduction, Haase De-colonizing, Holbek 168, Jordan xvii, Rørbye 20 Curtin 132).

Although the results of this paper are specific to the relationship of the storyteller and the tale in the context of gender, the presented methodology will enable research to further explore the storyteller-tale relationship and other relationships within the folk narrative system. For example, Benedict connects the difference in male and female storyteller repertoires to gender-related content (XLI). Holbek surmises that the different repertoires might be due to the storytelling environment: Women tell tales in the homestead, men tell tales in the army or

taverns (168). Holbek also surmises that the audience has an effect: Women tell tales to a mixed audience and men tell tales to a predominantly male audience (168). The difference in male and female repertoires has also been attributed to the type of relationship between teller and audience (Yocum). The asymmetry may also result from the type of information exchanged between teller and audience. Males tend to tell stories in a larger, public setting, while women tell stories in small, intimate settings and often only to people they feel close to, or want to become close to. (Sanday Women 80-82; Watson 12). All of these ideas pertain to relationships between different parts of the folk narrative system in the context of gender and can be studied using the presented methodology.

There is a difference between the focus of my research and the type of research outlined by Cavalli-Sforza and Feldman and Henrich et al. My research is not focused on tracking the diffusion of memes. My research focuses on quantifying the interactions among the many parts of the folk narrative system (Gray; Oyama). One of the reasons for this style of investigation is that it may be able to uncover information one wouldn't consciously think to look for.

Psychologist Stephen Kaplan states:

“It would seem reasonable that selection favored a capacity to assess environments ...in a way that would not compete with conscious processing. This capacity should, in other words, be under automatic control most of the time, very much like the control of the breathing process...immediate and intuitive rather than conscious and deliberate” (585).

Because the presented methodology deals with interactions, it is like watching how the gears in a clock work. Through this approach one will be able to gain a picture of the operation

and development of the folk narrative system as a whole from the storytellers, collectors and cultures, to environments, information exchange and biological constraints.

This paper presents a methodology which is grounded in details but is also able to identify universals. Using the expertise of scholars who have collected folk narratives, scholars who have studied collection, translation and transmission of folk narratives and the expertise of scholars who have grappled with the problem of assembling a representative worldwide data set, the presented methodology establishes guidelines for the assembly of a data set for worldwide studies of the folk narrative. This methodology, which treats the folk narrative as a part of a large interacting system enables cumulative studies and opens the door to the discovery of unanticipated information. The results from this initial study have established the existence of an asymmetry in the expression of male and female priorities and this led to the suggestion of a new model of human society. From even this initial study, it is apparent that the quantitative analysis of the folk narrative system can be used to gain new insight into human culture.

The folk narrative is an extensive, largely untapped data base. Since oral literature is our oldest and most widespread form of literature, this resource presents extraordinary possibilities for examining fundamental questions about the evolution of human culture. It is a vast pre-literate library waiting to be explored.

## Appendix A: Books in Survey

Murdock number	Book Bibliography	Filter	Culture/ Country
AFRICA A 03	Earthy, E. Dora. <i>The Social and Economic Life of the Valenge Women of Portuguese East Africa</i> . London: Frank Cass & Co. Ltd., 1968.	F,F	Valenge
A 03	Nogenile Msithathu Zenani <i>The World and the Word: Tales and Observations from the Xhosa Oral Tradition</i> . H. Scheub (Coll.). Madison: University of Wisconsin Press, 1992.	M,F	Xhosa
A 09	Routledge, W. Scoresby and Katherine Routledge. <i>With a Prehistoric People: The Akikuyu of British East Africa</i> . London: Edward Arnold, 1910.	F, M/F	Kikuyu
A 14	Owomoyela, Oyekan. <i>Yoruba Trickster Tales</i> . Reno, NV: University of Nebraska Press, 1997.	M	Yoruba
A 15	MacDonald, Margaret Read. <i>Ten Traditional Tellers</i> . Urbana & Chicago: University of Illinois Press, 2006.	F, M	Liberia and Ashanti
A 18	Jackson, Michael. <i>Allegories of the Wilderness, Ethics and Ambiguity in Kuranko narratives</i> . Bloomington: Indiana University Press, 1982.	M,M/F	Kuranko, Upper Guinea, Sierra Leone
Circum Mediterranean C 07	Hejaiej, Monia. <i>Behind closed doors: women's oral narratives in Tunis</i> . New Brunswick, NJ: Rutgers University Press, 1966.	F, F	Tunisia
C 08	El Shamy, Hasan M. <i>Folktales of Egypt</i> . Chicago & London: University of Chicago Press, 1980.	M, M/F	Egypt
C 17	Danaher, Kevin. <i>Folktales of the Irish Countryside</i> . New York: D. White, 1970.	M,M/F	Ireland
C 17	Edwards, Ron. <i>Yarns and Ballads of the Australian Bush</i> . Australia: Rigby Publishers, 1981.	M,M	English Australian
C 17	Keats, Norman Charles. <i>Bush yarns of yester years</i> . Self-published.	M,M	English Australian
C 17	Murphy, Michael J. <i>Now you're talking: Folktales from the north of Ireland</i> . Belfast: Blackstaff Press, 1975.	M, M/F	Ireland
C 17	Tongue, Ruth. <i>Forgotten Folk-Tales of the English Counties</i> . London: Routledge & Kegan Paul, 1970.	F, M/F	England

East Asia E 09	Van Deusen, Kira. <i>The flying tiger: Women shamans and storytellers of the Amur</i> . Montreal & etc: McGill-Queen's University Press, 2001.	F, M/F	Amur River, Siberia
E 09	Zong, In Sob. <i>Folktales from Korea</i> . Seoul: Hollym International, 1952.	M, M/F	Korea
E 12	MacDonald, Margaret Read. <i>Ten Traditional Tellers</i> . Urbana & Chicago: University of Illinois Press, 2006.	F, M	Tibet
E 13	Narayan, Kirin. and Urmila Devi Sood. <i>Mondays on the Dark Night of the Moon, Himalayan Foothill Folktales</i> . Oxford: Oxford University Press, 1997.	F, F	Himachal Pradesh, India
E 17	MacDonald, Margaret Read. <i>Ten Traditional Tellers</i> . Urbana & Chicago: University of Illinois Press, 2006.	F, F	Lao, N. Thailand
Insular Pacific I 03	Kershaw, Eva Maria. <i>Dusun Folktales: A Collection of 88 Folktales in the Dusun Language of Brunei with English Translations</i> . Honolulu: University of Hawaii, 1992.	F, M/F	Dusun, Brunei
I 07	Ahern, Amanda. and the Mornington Island Elders. <i>Paint-up</i> . St. Lucia: University of Queensland Press, 2002.	F, M/F	Mornington Island, AU
I 07	Ashton, Pamela Lofts. <i>The Kangaroo and the Porpoise</i> . Scholastic Press, 1987.	F, F	Belyuen tribe, AU
I 07	Ashton, Pamela Lofts. <i>The Bat and the Crocodile</i> . Scholastic Press, 1987.	F, M	Warmun tribe, AU
I 07	Clendon, Mark. <i>I was Born at Kunmunya and Other Worrorra stories</i> . Kimberley, Australia: Kimberley Language Resource Center, 2000.	M, F	Worrorra, W. Kimberley, AU
I 07	Heath, Jeffrey. <i>Nunggubuyu Myths and Ethnographic Texts</i> . Canberra: Institute of Aboriginal Studies, 1980.	M, M	Arnhem Land, AU
I 07	Robinson, Roland. <i>The Feathered Serpent</i> . Sydney: Edwards & Shaw, 1956.	M, M	Northern Territories, AU
I 08	Counts, C. Dorothy A. <i>The Tales of Laupu</i> . New Guinea: Institute of Papua New Guinea Studies, 1976.	F, M	New Guinea
I 13	Feinberg, Richard. <i>Oral Traditions of Auta: A Polynesian Outlier in the Solomon Islands</i> . New York and Oxford: Oxford University Press, 1998.	M, M	Solomon Islands
I 13	Kuschel, Rolf. <i>Animal Stories from Bellona (Mungiki): Language and Culture of Rennell and Bellona Islands: Vol. IV</i> . Copenhagen: National Museum of Denmark, 1975.	M, M/F	Bellona Is., Solomon Is.



I 14	MacDonald, Margaret Read. <i>Ten Traditional Tellers</i> . Urbana & Chicago: University of Illinois Press, 2006.	F, M	New Caledonia
I 18	MacDonald, Margaret Read. <i>Ten Traditional Tellers</i> . Urbana & Chicago: University of Illinois Press, 2006.	F, M	Hawaii
I 20	Tobin, Jack A. <i>Stories from the Marshall Islands</i> . Honolulu, Hawaii: University of Hawaii Press, 2002.	M, <sup>M</sup> / <sub>F</sub>	Marshall Is.,
North America N 01	Hall, Edwin S., Jr. <i>The Eskimo Storyteller: Folktales from Notak, Alaska</i> . Knoxville, TN: University of Tennessee Press, 1975.	M, <sup>M</sup> / <sub>F</sub>	Noatagmiut/ Naupaktomiut
N 01	MacDonald, Margaret Read. <i>Ten Traditional Tellers</i> . Urbana & Chicago: University of Illinois Press, 2006.	F, F	Eskimo
N 07	MacDonald, Margaret Read. <i>Ten Traditional Tellers</i> . Urbana & Chicago: University of Illinois Press, 2006.	F, F	Upper Skagit
N 07	MacDonald, Margaret Read. <i>Ten Traditional Tellers</i> . Urbana & Chicago: University of Illinois Press, 2006.	F, M	Chahalís
N 08	Jacobs, Melville. <i>The Content and Style of an Oral Literature: Clackamas Chinook Myths and Tales</i> . Chicago, London and Toronto: University of Chicago Press, 1930.	M, M	Chinook
N 12	Clark, Ella E. <i>Indian Legends from the Northern Rockies</i> . Norman Oklahoma: University of Oklahoma Press, 1996.	F, M	Shoshoni
N 13	Aoki, Haruo (Trans.) and Deward E. Walker (Coll.) <i>Nez Percé Oral Narratives</i> . Berkeley, Los Angeles and London: University of California Press, 1988.	M, <sup>M</sup> / <sub>F</sub>	Nez Percé
N 13	Clark, Ella E. <i>Indian Legends from the Northern Rockies</i> . Norman OK: University of Oklahoma Press, 1966.	F, <sup>M</sup> / <sub>F</sub>	Nez Percé
N 14	Clark, Ella E. <i>Indian Legends from the Northern Rockies</i> . Norman OK: University of Oklahoma Press, 1966.	F, <sup>M</sup> / <sub>F</sub>	Flathead Couer d'Alene, Kalispel
N 15	Clark, Ella E. <i>Indian Legends from the Northern Rockies</i> . Norman OK: University of Oklahoma Press, 1996.	F, M	Blackfoot
N 21	Brady, Margaret K. "Some kind of power" <i>Navajo children's Skinwalker narratives</i> . Salt Lake City: University of Utah Press, 1984.	F, <sup>M</sup> / <sub>F</sub>	Navajo

N 22	Benedict, Ruth. <i>Tales of the Cochiti Indians</i> . Albuquerque: University of New Mexico Press, 1931.	F, M/F	Cochiti
N 22	Tedlock, Dennis. <i>The Spoken Word and the Work of Interpretation</i> . Philadelphia, PA: University of Pennsylvania Press, 1983.	M, M	Zuni
South America S 01	Chapman, Anne. <i>Masters of Animals: Oral Traditions of the Tolupan Indians Honduras</i> . Switzerland: Gordon & Breach, 1992.	F,M	Tolupan, Honduras
S 01	Laughlin, Robert M. <i>Of cabbages and kings: Tales from Zinacantán</i> . Washington DC: Smithsonian Institution Press, 1977.	M, M/F	Mayan, Mexico
S 20	Basso, Ellen B. <i>The Last Cannibals: A South American Oral History</i> . Austin: University of Texas Press, 1995.	F, M/F	Kalapalo, Brazil

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