What happened to the heroines in folktales: An analysis by gender of a multi-cultural sample of published folktales collected from storytellers

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Biography:

Kathleen Ragan is a doctoral candidate at Macquarie University, Sydney Australia. She is the editor of two folktale anthologies: *Fearless Girls, Wise Women and Beloved Sisters* and *Outfoxing Fear*. The mother of two daughters, Kathleen is fluent in German and also speaks French and Japanese and has lived in and/or traveled to about fifty countries.

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ABSTRACT

Using grammatically defined units and a random selection of 1,601 folktales, this paper analyzes the gender of protagonists of published folktales as related to the gender of editors, collectors and storytellers. The differential representation of female folktales is statistically quantified. Independently reproducible results uphold mainstream feminist objections to supposedly impartial analyses of folk and fairy tales and indicate that structuralist analyses which have not taken gender into account in the compilation of their data sets, can be considered compromised. This paper demonstrates what mainstream feminists consider obvious but mainstream scholars in some other fields consider unproven assumption.

Although the gender/sex question has diminished in importance in fields such as Women's Studies, Folk and Fairy Tales and Folklore (Boyd, Jane 1), this question remains prominent in fields such as Sociobiology, Evolutionary Psychology and the emerging field of Literary Darwinism (Gottschall and Wilson). Gender first emerged as a significant issue in the study of folk and fairy tales in light of the women's movement of the 1960s and 1970s (e.g. Bottigheimer, *Grimms'*; Lundell; Stone, *Things Walt Disney*, *Misuses*; Tatar, *Hard Facts*, *Off*; Zipes, *Don't Bet*). Scholars analyzed common Western

fairy tales and criticized the image of the passive, somnolent beauty (e.g. Bottigheimer, *Silenced Women*; Kolbenschlag), the focus on self-sacrifice, marriage and the helpless woman (Rowe), and the connection of women's power and action with evil and ugliness (Lieberman 197).

Lundell mounted a formidable challenge to the Aarne-Thompson Index, the structuralist, dominant, classification scheme used in the study of folk and fairy tales. Lundell offered many examples of how the Aarne-Thompson Index places both male and female protagonists under male headings, ignores female activity, focuses on male activity at the expense of females, portrays females as passive and uses different standards to evaluate male and female behavior (Lundell). "That there is urgent need for revision of these research tools is made particularly clear when we read the following cross-reference in the Motif Index: '*Man*, see also *Person*.' '*Woman*, see also *Wife*.'" (Lundell 162). Tatar's criticism of the system concludes: "The Aarne-Thompson Index offers a particularly vivid example of the way in which the most expert readers of a folktale rewrite it even as they do nothing more than summarize its events" (Tatar, *Off* 159).

Eventually this folk and fairy tale scholarship led to the acceptance of the idea that a male-centered tale from a male teller, collected by a male incorporates "a shared male worldview and experience," thus "the maleness of the collector conditions the choice of tales that are told, as well as the manner in which they're told" (Bottigheimer, *Luckless* 268). For many folk and fairy tale scholars this theory seemed so obvious that it has been treated as proven truth and much subsequent scholarship has focused on in-depth analysis within the context of the individual tales (e.g. Dundes; Zipes, *Trials*), collections (e.g.

Blackwell; Zipes, *Brothers*), cultures (e.g. Berndt; Del Negro; Hejaiej), life-stories (e.g. Sawin), analysis of performance (e.g. Ben-Amos; Meyer; Tsing), or of gender itself (e.g. Stephens). This trend often acts as a "critique of structuralist or formalist approaches that see texts as independent from lived experience or social content" (Berger 3). The strength of this approach is an intimate understanding of narrative functions as they relate to individuals and groups.

However, in the context of broader trends, one needs to recognize that other fields such as sociobiology, evolutionary psychology and even literary criticism in the emerging field of Literary Darwinism have continued to address and actually focus on the gender/sex issue. Scholars in Literary Darwinism have been drawn to the folktale as a resource (e.g. Gottschall, *Patterns*, *Quantitative*; Sugiyama *Origins*, *Narrative*, *Reverse-Engineering*). Darwinists see endurance and cross-cultural ubiquity as evidence that a trait has conferred a reproductive advantage. Narrative and narrative ability are cross-cultural and endure. Every known culture tells its tales, from hunter/gatherer to the modern industrialist cultures (e.g. Hall; Deng; Karasik; Dance). The folk narrative has possibly been a part of our evolutionary history for 30,000 - 100,000 years (Sugiyama, *Narrative* 233). Even individual tales are able to survive for thousands of years (Zipes, *When Dreams* 51; Shumaker vi). In addition, most individuals within every culture have the ability to tell tales and understand narrative without any formal instruction (Sugiyama, *Narrative* 233). Darwinists see human reliance on the exchange and sharing of information as having favored the ability to convey relevant information in a memorable way (Pinker 482; Sugiyama, *Food* 228). Tales are a likely means for this information transfer because tales are remarkably memorable especially as compared to a

twenty digit number. Recently scholars in fields such as English Literature and Evolutionary Psychology have begun applying Darwinian ideas to literature, children's literature and folk and fairy tales. (e.g. Gottschall and Wilson; Boyd, *Origin*; Carroll) These scholars' scientifically inspired analyses are based in evolutionary theory and recently have included the application of statistics.

An example of this kind of anlaysis is Gottschall's "Quantitative Literary Study: A Modest Manifesto and Testing the Hypotheses of Feminist Fairy Tale Studies" (Gottschall, *Quantitative*). Gottschall's hypothesis is: Since feminists have claimed that European fairy tales reflect "arbitrary gender norms of western patriarchal societies," then an analysis of gender norms in world folktales should prove the "social construction hypothesis" right or wrong (Gottschall, *Quantitative* 207-8). In other words, if gender representations in European fairy tales were shown to be the same as gender representations in folktales in the rest of the world, then the gender norms would be pan-human rather than constructed by western patriarchy. Gottschall based his statistical analysis on content analysis of 1440 tales guided by evolutionary theories such as sex difference in mate preferences.

Gottschall states that a motivation for his analysis is that: "[T]he defining empirical claim of classic feminist gender theory is that gender is primarily…a product of nurture not nature…" and that this idea has "shaped an immense body of feminist literary criticism" (Gottschall, *Quantitative* 207). Gottschall continues, "Nowhere is this truer than in feminist anlaysis and critique of European fairy tales." He cites a retrospective issue of *Marvels and Tales* (Haase) which "shows that most of the core claims of feminist fairy tale studies continue to enjoy broad support" (Gottschall, *Quantitative* 207).

Gottschall concludes that: "The broad trends observed in European fairy tales were never violated" in world folktales (Gottschall, *Quantitative* 217). Therefore, the passive females of western tales would not be a product of a male construct of western patriarchal societies because females were just as passive in other traditions. Thus, Gottschall concludes, the feminist social construction hypothesis failed.

Gottschall, himself, touches on the critical problem of his analysis. He attempts to respond to the claim that the European fairy tale sample reflects a male editing process and therefore analysis of this material will result in reaffirming the patriarchal view. Gottschall finds this idea unlikely because it would mean that "the dozens of male and female folklorists, ethnographers, anthropologists and other scholars…despite their varying national, disciplinary, ideological, and historical backgrounds – made exactly the same type of editorial manipulations…" (Gottschall, *Quantitative* 218).

If these scholars are correct in claiming that the fairy tale sample reflects a gendered editing process, then we would expect to observe this in the relationship between the predominant gender in folk and fairy tales and the gender of the editor, collector and storyteller. The aim of the current study was to use a carefully defined and randomly selected set of folktales to statistically analyze these questions: Is there a relationship between the predominant gender represented in a tale and the gender of the editor, collector and storyteller? Is the difference between the predominant gender in tales told by males and females large enough to impact on a data set which does not control for gender? Specifically, it was hypothesized that if there is gendered influence by editors, collectors and/or storytellers on the sample, then there will be a difference in the number

of tales with predominantly female characters reproduced by female vs. male editors, collectors and/or storytellers.

METHODOLOGY

General qualitative conclusions from quantitative analyses may help us perceive fundamental patterns in literature and culture (Cavalli-Sforza, 70). Although cultural issues are often very complex, one can choose a level or milieu for analysis that makes differences observable. Any continuous trait can be made discrete by defining thresholds, similar to the way one could separate black from grey using wavelengths (Cavalli-Sforza 73). Specific units such as universal grammar constructs (Greenberg, *Universals of Grammar*; Hockett; Jakobson) can be used to define countable units in literature. Unlike standard content analysis which depends upon characterizations by various investigators, the counting of independently defined and identifiable grammatical constructs involves specific units not opinions. This use of countable units would allow one to set a specific, well-defined threshold to make differences observable in a cultural trait. This would also mitigate the problems of working in translation since the chosen grammatical constructs would be universal and therefore translatable. Simple but rigorous statistical surveys using averages or chi square fit will track changes, although more complicated statistics could also be used (Cavali-Sforza).

FILTERS

A tale in an anthology or even a tale told in a market place is material that has gone through a number of filters. The filters include: The editor, the collector and the storyteller. Storytellers generally draw their tales from a pool of their culture's tales, but storytellers tell their favorites and tales they think their audience will enjoy. Collectors

collect folktales from some storytellers, not all, and collectors do not necessarily collect every tale the particular storytellers know. Editors include tales from some collectors, not all, and from some of the collectors' storytellers, not all the storytellers, and not all the tales. This paper tracks and quantifies the differential representation of tales with predominantly female or male characters through these three filters.

METHOD

The gender of each tale was established using universal, grammatically defined units. (Greenberg, *Universals of Grammar*; Hockett; Jacobsen). Nominative case nouns and pronouns (subjects) of simple and compound sentences and of main and subordinate clauses were counted. Where the percentage of female nominative cases in a tale exceeded 2/3, the tale was denoted a Female tale. Where the percentage of male nominative cases exceeded 2/3, the tale was denoted a Male tale. Thus a discrete threshold (over 2/3) of countable units (subjects) was established to define the gender of a tale as Cavalli-Sforza suggested: "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, the simple division by three is commensurate with the data set, and differences are observable.

Some might object that a tale can be "about" women but still not have over 2/3 female in the nominative case. 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', the 'theme' of

the sentence…" (Quirk, 11). Therefore if over 2/3 of the subjects in the 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. This paper analyzes the differential representation of tales with predominantly female or male characters as defined by a tale with more than 2/3 of one gender in the nominative case, therefore this analysis does not include tales which are not dominated by one or the other gender.

The books used in this paper come from Fisher Library of the University of Sydney, because the collection was large enough to provide large numbers of folktales. The set of folktales used in this analysis came from the 398.20 up to, but not including 398.21 in the Dewey Decimal Classification's organization (Mitchell). Section 398.2 in the Dewey System is defined as "Folk Literature" as opposed to another section for religious mythology and yet another section for "belles-lettres by identifiable authors." Section 398.2 – 398.209 comprises: "Folk Literature…Fairy tales, Folk literature by language" and section 398.209 3 – 398.209 9 comprises "treatment by specific continents, countries, localities (Mitchell 853). Thus the use of the Dewey Decimal Classification, enabled a random survey within a pre-determined and externally determined definition of folktales.

It was important to get a random sample, not influenced in any way by my favorites. Therefore, within the 398.20 section, the color of the book's spine determined the subset of books used. Where possible, the genders of the editor, collector, storyteller, and tale were determined. (See Appendix A). The subset of blue and red books did not include enough female editors, collectors or storytellers for a statistically significant sample.

Thus, all green books with female editors in the Fisher 398.20 section were subsequently analyzed. The results were added to the information in the random survey.

One needs to recognize the difficulty inherent in this kind of research: Few editors give information about the gender of both the collectors and the storytellers. However, twenty-five different cultures or countries, with multiple examples from each continent, were represented in this random survey. (See Appendix B). Over 396 different storytellers (over 298 male (M) and over 98 female (F)), over 45 different collectors (over 30 M and 15 F), 10 different editors (5 M and 5 F) and 1601 stories (1400 M and 201 F) have been included in this random survey. (See Appendix B). The exact numbers of storytellers and collectors were unable to be determined because some books gave the gender without identifying the storyteller and/or collector, thus making it possible to include the gender data, but impossible to determine the number of individuals who contributed to the data.

I was able to isolate the effects of editors, collectors and storytellers of each gender by compiling statistics for each permutation of the three filters. For example: The book, *Mayan Tales from Zinacantán* (Karasik), has a female editor, a male collector and both female and male storytellers. The first tale is designated FMM, because that tale has a "F"emale editor, a "M"ale collector and a "M"ale storyteller. The eleventh tale in the book is designated FMF, because it has a "F"emale editor, a "M"ale collector and a "F"emale storyteller. Every tale I surveyed was thus classified.

To determine the influence of the storyteller filter on the gender of the tales, I compared the gender of the tales in the two groups FMF and FMM. In both groups, the gender of the editor, F, and the gender of the collector, M, remain constants, and can for

the moment be ignored. Notice that with these constants, FMF becomes **F and FMM becomes **M, allowing comparison of the gendered storytellers.

I determined the "N"umber of female and male tales told by the female storyteller, $N_f(FMF)$ and $N_m(FMF)$. I determined the "P"ercentage of female tales told by the female storyteller by putting the number of female tales over the total of the male and female tales:

$$P_f(FMF) = \frac{N_f(FMF)}{N_f(FMF) + N_m(FMF)}.$$

I repeated the above for the male storyteller, obtaining the percentage of female tales told by the male storyteller, $P_f(FMM)$.

The influence of the gender of the "S"toryteller on the percentage of female tales in the FMF/FMM group is measured by the difference between the female and male percentages:

$$S_{(FMF;FMM)} = P_f(FMF) - P_f(FMM)$$

More generally, the storyteller influence is:

$$S_{(**F;**M)} = P_f(**F) - P_f(**M)$$

There are four permutations in which both the collector and editor can be kept constant and the Storyteller gender filter can be determined: S_1 = FMF;FMM (as noted above), S_2 = MMF;MMM, S_3 = FFF;FFM and S_4 = MFF;MFM. Notice that each category can be denoted as **F;**M, using * to denote the editor and another * to denote

the collector as constants. The average of all these categories, S_1, S_2, S_3 and S_4 is the overall influence of the storyteller.

Similarly, to measure the influence of the "C"ollector:

$C = P_f(*F*) – P_f(*M*)$

and of the "E"ditor:

$E = P_f(F**) – P_f(M**)$

The same technique can be applied to books which eliminate one or two of the categories as long as the stories have not gone through a more primary filter. Therefore, books by collectors who note her/his storytellers' genders may be considered by using the permutations: C_1 = FF; MF and C_2 = FM; MM, or more generally, F* and M*. Since the tales have passed through the Storyteller filter, the storyteller can be held constant to determine the influence of the collector. The collector is differentiated from the editor in that a collector gets her/his stories from the storyteller while an editor gets her/his stories from collections compiled by collectors.

One can compare percentages of the summed data using the above method to isolate the influence of storytellers, collectors and editors. For example: The percentages of female tales told by male storytellers in the *M and **M categories result in an overall average of 8% female tales told by male storytellers. (See Table 1)

In general, computing percentages allows us to see patterns in data, however, it does not take into consideration issues such as the fact that in one *M category with 454 tales the percentage was 2% female tales and in one **M category with only 8 stories the percentage was 25% female tales. In other words, percentages do not allow one to generalize from a small, measured sample to the larger unmeasured population.

Therefore my methodology included testing my data with a widely accepted test of statistical significance, the chi square test, to determine whether or not the results can be generalized to a larger, unmeasured population. The chi square test enables one to determine whether or not two different samples are different enough that one can generalize from the samples to the larger population from which the samples were drawn (Connor-Linton). In this case, the chi square test has been applied to the data to determine whether observed gender differences are statistically significant. The chi square test was applied to the numbers of tales in each category rather than the percentages. For example, in the example above, N_m (FMF) and N_f (FMF) were compared to N_m (FMM) and N_f (FMM).

Since a tale does not exist independently of a storyteller, it is not possible to determine the "true" or 'baseline" ratio of female to male tales in any culture. In addition, since the method presented here involves counting, a standard deviation is also not applicable.

RESULTS

The results demonstrate that the predominant gender represented in a tale is related to the gender of the storyteller. Using the method above to isolate filters, the differential representation of female tales by gender of the storyteller is 36%. That is, female storytellers told about 44% female tales, while male storytellers told about 8% female tales. Three of the six compared categories isolating the storyteller filter are significantly different using a chi square test, $p < 0.001$ (See Table 1). The other three categories contain too few stories to enable a statistical comparison.

The difference between female and male collectors is not as pronounced as between female and male storytellers when it came to choosing the gender of the tales. (See Table 2). There were not enough data to perform a chi square test on the gender of the editor. There were not enough data to obtain a result in a comparison of percentages because in 2 out of only 8 categories there was only 1 tale (MFF and MFM) (See Table 3). However, the percentages again show that neither male nor female editors included 50% female tales.

The results also indicate that the predominant gender represented in a tale is related to the passage through a triple, single-gender filter (MMM or FFF). A comparison of the three female filters (FFF) and the three male filters (MMM) yields a difference of 48% (See Table 4). That is, when female editors selected from collections by female collectors who had collected from female storytellers, the result was 52% female tales, and when male editors selected from collections by male collectors who had collected from male storytellers, the result was 4% female tales. This difference is statistically significant using the chi square test, $p < 0.001$.

This survey also established that female storytellers made up less than 25% of the storytellers cited and the female tales made up about 12% of the total tales. The average number of stories told was three tales per female storyteller and 4 tales per male storyteller.

In summary, the results demonstrate that there is a statistically significant difference in number of female and male tales depending on the gender of the storyteller and whether the tales had passed through a triple, single-gender filter.

DISCUSSION

The feminists and fairy tale scholars who contend that the folk and fairy tale sample reflects a male editing process are correct. Their objections to previous, supposedly impartial, scientifically inspired analyses of folk and fairy tales have been well-founded. The results, even from this initial survey, indicate that the difference between the predominant gender in tales told by males and females is large enough to impact on a data set which does not control for gender. This is a statistical, not an ideological argument. If one studies tales, most of which have passed through a male editor, male collector and male storyteller, one could not extend the conclusions from the study to the folktale as a genre since there is a category of tales which is ignored, namely female tales.

The results of this paper place constraints on the results, conclusions and analytical techniques which have been drawn from studies which have not taken into account the genders of tales and filters. If an unbalanced data set was used, those studies are compromised. In addition, any future study which attempts to draw conclusions about the folktale or culture from the folktale, but does not consider gender in the compilation of the data set can also be considered compromised. Therefore, the study of the folktale needs to be altered. Any data set used for the study of the folktale as a genre should control for or at least stipulate why it has not controlled for the probably unbalanced data set which results from a preponderance of male editors, male collectors, male storytellers and thus male stories.

Although this study represented a relatively small sample of cultures, twenty-five, the number of stories, 1601, is commensurate with Gottschall's 1440 tales. (Gottschall, *Quantitative*). In addition, support for this paper's results comes from Holbek's analysis of approximately 700 tales collected by a single male collector in the mid and late 1800's

(Holbek). To ensure a single cultural influence, Holbek used only fairy tales and a very tight geographic area, one county in northern Denmark. Even though Holbek did not use a reliably reproducible definition of the gender of the tale, his analysis forms a somewhat complementary analysis to this paper's large-scale analysis.

Holbek also found that the gender of the tale was related to the gender of the storyteller. "Male and female repertoires differ. There is a distinct tendency for men to prefer masculine fairy tales, whereas women's repertoires are more evenly distributed between the two genders of fairy tales" (Holbek 168). Holbek's analysis showed that men told 12.3 % female tales and women told 45.9% female tales (Holbek 168), which is remarkably close to the results in this paper which show that men tell 8 % female tales and women tell 44% female tales.

Additional support for the conclusion of this paper comes from the work of Margaret Mills. From 1974-1976 in and around Herat and Kabul, Afghanistan, Mills collected over 500 and analyzed a sample of 450 prose narratives from both males and females. Mills found that 11% of tales told by men had exclusively female main characters but that tales told by women were more evenly divided, with 48% male main characters and 49% female main characters. (Mills 187-188) Again, despite the lack of reliably reproducible definition of 'main character,' or in other words, the gender of the tale, Mills' work supplies complementary evidence from another individual culture with results that are similar to this paper's results of the folktale world-wide.

It should be noted that in the current study, there were variables unable to be controlled for, such as the collectors' decisions as to which narrative constituted appropriate material. Farrer has claimed that for years, women's tales have been

demoted to a non-legitimate category. For instance, it is argued that there are the male genres of tall tales and yarns, but that the female corollaries are "exaggeration and gossip." In addition, Farrer argues that when multiple tellings of the same tale are recorded, the male version is often preferred. In other cases, women storytellers were used only when males were unavailable or tales told by females were discounted altogether (Farrer vii).

Collectors' assumptions about the proper place to collect tales could not be inferred from this analysis. It has been argued that the male storyteller occupies the public sphere while many females tell stories in an intimate sphere (Yocum 46). Therefore, the male storytellers are the most obvious and easy to collect from. In addition, the majority of collectors to date have been male and they often have limited access to women's tales because of social constructs in the societies being studied (Farrer, *Introduction* x; Herscovits 10). The above constitute part of the collector filter, but do not necessarily exist just because of the gender of that filter.

In counting grammatical units rather than using evaluations, this paper does not assume cultural or genetic coding in the folktales or in the differential ratios between tales told by men and women. This method does not assume a nurture vs. nature dichotomy. Instead the relationships amongst tales, propagators, environments, information etc. can be considered as an inter-relational system. This analysis of the relationship between the tale and the editor, collector and storyteller is only the beginning of the analysis because there are other parts of this system which could and should be analyzed, such as the possible influence of the audience, the difference in information conveyed and the environment in which the story is told.

The gender of the audience may well exert an influence on the gender of the tale (Benedict, XL-XLII). Holbek suggested that since men tell tales to predominantly male audiences, such as in the army or at taverns, men would be more likely to tell male tales to these audiences. Women tend to tell stories in homesteads thus frequently they have mixed gender audiences and mixed age audiences which might elicit a more egalitarian choice of tales (Holbek 405-6).

The different ratios could be a reflection of the different environments males and females each inhabit and thus the different types of information selected for (Gowaty, *Introduction* 7). For example, Yocum's analysis of storytellers examined place, audience and type of information conferred. The man occupied a public sphere, therefore his stories were performance centered and conveyed a different type of information from the intimate and contextual choice of stories of the woman storyteller (Yocum). In other words, the difference in ratios of gendered tales told by men and by women may not reflect a gender or sex difference, but rather a difference in selective pressures that males face and females face. This is similar to the way men might discuss troubles at work and women might discuss whose child has the chickenpox. For these aspects to be studied, however, collectors will have to note the audience gender and context of the telling of the tale as for example Harold Scheub does in *The World and the Word* (Zenani).

In addition, the presented method does not assume that there is a "correct" or "true" "baseline." This study does not assume that everyone, both males and females, should tell a 50/50 ratio of male/female stories. However, quantifying that men and women tell different ratios enables a more judicious assembly of a data set and opens up questions as to why this difference occurs. It is not only interesting that female storytellers tell

approximately a 50/50 ratio and male storytellers tell almost exclusively male tales, but also interesting that there is a difference in the ratio of gendered tales told.

This analysis also touches on the difference between multiple, single-gendered filters in anthologies. Had the tales in anthologies been primarily told, collected by and edited by females, one might expect a different ratio of female and male tales in anthologies. This suggests that the current male-dominated environment has resulted in a decrease in the number of female tales compared to what it would have been had there been a female dominated environment.

The observations which resulted in this paper were garnered during the past fifteen years. While compiling folktale anthologies (Ragan, *Fearless*, *Outfoxing*) and searching through over 50,000 folktales, I became aware of patterns, such as a probable connection between the gender of protagonists of a tale and the gender of the editor, collector and storyteller. The critical issue then became finding a method to study these patterns, a method that would allow the study of folktales in terms that are reproducible and well defined enough to be subjected to a scientific methodology. Given the problematic relationship amongst fields such as the different feminisms, evolutionary psychology and sociobiology, my hope was to develop a method that would enable any discussion to at least begin on the same page, with a well-defined, less subjective and better understood data set. What resulted was a methodology for large scale statistical analysis intimately connected to my own lived experience.

A functional large scale methodology for studying folk and fairy tales gives many advantages in addition to an increased ability to communicate across disciplines. Recognition of the issues associated with collection and publication can aid in the

recovery of neglected folktale texts by women and can open the possibility of uncovering a corpus of folktales outside of, or at least on the periphery of the male world. In addition, this methodology could extend the examination of the information within the folktales. Currently, information in folk and fairy tales is used to investigate cultural changes in a socio-historical context. A large scale methodology might open the possibility of using the information to investigate cultural changes over anthropological time scales. An independently reproducible methodology would also increase the possibilities of eliciting data to test hypotheses such as whether or not folktales have been used to convey information about the environment such as food (Sugiyama, *Reverse-Engineering*) or wayfinding (Tonkinson).

This paper has adduced evidence for the interdependence of the gender of the tale and the gender of the storyteller as well as the interdependence of the gender of the tale and the gender of a combination of three filters. Past and future studies of the folktale as a genre which have not considered gender in the compilation of the data set can be considered compromised. According to historian Gerda Lerner, "The social cost of having excluded women from the human enterprise of constructing abstract thought has never been reckoned" (Lerner). This paper is one of the steps in that reckoning.

TABLE 1: RESULTS FOR STORYTELLER FILTER

	# F Tales	# M Tales	% F Tales	% M Tales	Chi Square
(FF) *F_1	27	105	20 %	80 %	p< 0.001
(FM) *M_1	11	443	2 %	98 %	significant
(MF) *F_2	41	59	41 %	59 %	p< 0.001
(MM) *M_2	43	474	9 %	91%	significant
(FFF) **F_3	26	24	52 %	48 %	Not determined
(FFM) **M_3	2	6	25 %	75 %	
(MFF) **F_4	1	0	100 %	0 %	Not determined
(MFM) **M_4	0	1	0 %	100 %	
(MMF) **F_5	1	6	14 %	86 %	Not determined
(MMM) **M_5	4	98	4 %	96 %	
(FMF) **F_6	13	21	38 %	62 %	p< 0.001
(FMM) **M_6	6	55	10 %	90 %	significant
Storyteller	----	----	**Average** % F Tales	**Average** % M Tales	----
Female	----	----	**44 %**	**56 %**	----
Male	----	----	**8 %**	**92 %**	----

TABLE 2: RESULTS FOR COLLECTOR FILTER

	# F Tales	# M Tales	% F Tales	% M Tales	Chi Square
(FF) F_1*	27	105	20 %	80 %	p< 0.001
(MF) M_1*	41	59	41 %	59 %	significant
(FM) F_2*	11	443	2 %	98 %	p< 0.001
(MM) M_2*	43	474	9 %	91%	significant
(FFF) * F_3*	26	24	52 %	48 %	Not determined
(FMF) * M_3*	13	21	38 %	62 %	
(MFM) * F_4*	0	1	0 %	100 %	Not determined
(MMM) * M_4*	4	98	4 %	96 %	
(MFF) * F_5*	1	0	100 %	0 %	Not determined
(MMF) * M_5*	1	6	14 %	86 %	
(FFM) * F_6*	2	6	25 %	75 %	Not determined
(FMM) * M_6*	6	55	10 %	90 %	
Collectors	----	----	**Average** % F Tales	**Average** % M Tales	----
Female	----	----	**33 %**	**66 %**	----
Male	----	----	**19 %**	**81 %**	----

TABLE 3: RESULTS FOR EDITOR FILTER

	# F Tales	# M Tales	% F Tales	% M Tales	Chi Square
(FFF) F_1**	26	24	52 %	48 %	Not determined
(MFF) M_1**	1	0	100 %	0 %	
(FFM) F_2**	2	6	25 %	75 %	Not determined
(MFM) M_2**	0	1	0 %	100 %	
(FMM) F_3**	6	55	10 %	90 %	Not determined
(MMM) M_3**	4	98	4 %	96%	
(FMF) F_4**	13	21	38 %	62 %	Not determined
(MMF) M_4**	1	6	14 %	86 %	

TABLE 4: RESULTS FOR SAME GENDER IN ALL THREE FILTERS

	# F Tales	# M Tales	% F Tales	% M Tales	Chi Square
FFF	26	24	52 %	48 %	$p < 0.001$ significant
MMM	4	98	4 %	96 %	

Appendix A: Determination of the gender of a tale

Nominative case, first and third person nouns and pronouns (subjects) of simple and compound sentences, main and subordinate clauses active and passive voice were counted. Where the percentage of female nominative cases in a tale exceeded 2/3, the tale was denoted a Female tale. Where the percentage of male nominative cases exceeded 2/3, the tale was denoted a Male tale. Neuter nominative case was not counted.

Compound subjects, where the gender was noted were counted individually and counted throughout the tale even when grouped together, if able to be distinguished. For example: "John and Mary talked and they laughed." counted as 2 male (M) and 2 female (F). Counting plural pronouns individually was only used up to three subjects and only where the subjects could be clearly distinguished. Thus a tale with two brothers and one sister in a boat resulted in a 2 M to 1 F count throughout whenever the pronoun "they" was used, but in a tale with 12 protagonists in varying situations a result was unable to be determined unless the 12 were all one gender, then the group was counted as 1 M or 1 F every time it was in nominative case. Every person of the 12 whose gender was identifiable and who was individually named in a sentence was counted for that sentence. The exclusion of second person nominative separates actions from potential actions.

Example: Exerpt from: Ruth Benedict, *Tales of the Cochiti Indians*, "The Tip Beetle's Revenge" p. 127. There was a **boy who** never obeyed his father and mother. Every little animal that came near him, **he** stepped on it, and when **he** came across a snake **he** threw stones at it and killed it. One morning **he** started to go out and his **father** and **mother** said, "Don't kill any little bugs or snakes on your way," But **he** didn't mind;

he stepped on bugs and threw stones at the snakes. The **spirits** of the bugs and snakes were angry."

A tally of male subjects equals 9. "Who" in the first sentence is the subject of the dependent clause and refers to the male subject "boy" and therefore counts as 1 male subject. A tally of female subjects equals 1. "Mother" in the third sentence is half of the compound subject of the independent clause and thus counts as 1 female subject. The understood second person subject of the command, "Don't kill any little bugs..." was not counted. "Spirits" is the subject of the last sentence in the example. However the group is larger than three and the gender is not noted, therefore this subject did not enter the tally except as a condition of the count of the entire number of subjects for the final percentage count.

The determination of the gender of this exerpt (as if it were the whole tale) would be: 9 M, 1 F, 1 group with no assigned gender. The number of M over the sum of all gives the percentage (9/11) of Male nominative case which equals 82%. This is larger than 66.6% thus making this exerpt a Male exerpt.

The gender of the tale was entered into a table. Results for the above example were: F (editor gender) F (collector gender) F (storyteller gender) M (tale). Every tale in every book in the random survey was counted and entered into the table.

Not all tales were counted all the way through. Where the tale was very long and a count of the first three pages resulted in a clear predominance of one gender, each subsequent page was divided into quarters and the gender of each quarter page was estimated. For example: A glance at the exerpt above would show dominance of the male gender without a specific count and if it were about 1/4 of a page, would be

estimated as 1/4 M. If the result came to within one page of a 2/3 division, the nominative cases throughout the tale were counted.

Appendix B: Books in Random Survey with Culture and Filter noted

Continent	Book Bibliography	Filter	Culture/ Country
Africa	Jackson, M. *Allegories of the Wilderness, Ethics and Ambiguity in Kuranko Narratives*. Bloomington: Indiana University Press, 1982.	M,$^{M}/_{F}$	Kuranko, Upper Guinea, Sierra Leone
	Nogenile M.Z. *The World and the Word Tales and Observations from the Xhosa Oral Tradition*, H. Scheub, coll. Madison: University of Wisconsin Press, 1992.	M,F	Xhosa,
Asia	Narayan, K. with Urmila D.S. *Mondays on the Dark Night of the Moon, Himalayan Foothill Folktales*. Oxford: Oxford University Press, 1997.	F,F	Himachal Pradesh, India
	Surmelian, L. *Apples of Immortality Folktales of Armenia.* London: George Allen & Unwin, 1968.	M,M,$^{M}/_{F}$	Armenia
	Walker, W. S. and A. E. Uysal, *Tales Alive in Turkey*. Cambridge: Harvard University Press, 1966.	M,M,$^{M}/_{F}$	Turkey
	Zong I. S. *Folktales from Korea*. Seoul: Hollym International, 1952.	M,$^{M}/_{F}$	Korea

Europe	Briggs, K. M. *A Sampler of British Folk-Tales*. London: Routledge & Kegan Paul, 1977.	F,$^{M}/_{F,}{}^{M}/_{F}$	Britain
	Danaher, K.. *Folktales of the Irish Countryside*. New York: D. White, 1970.	M,$^{M}/_{F}$	Ireland
	MacGregor, A. A. *The Peat-Fire Flame: Folk-tales and traditions of the Highlands and Islands*. Edinburgh: Ettrick Press, 1947.	M,M,$^{M}/_{F}$	Scotland
	Murphy, M. J. *Now You're Talking Folktales from the North of Ireland*. Belfast: Blackstaff Press, 1975.	M, $^{M}/_{F}$	Ireland
	Ó Catháin, S. *The Bedside Book of Irish Folklore*. Dublin: Mercier Press, 1980.	M,$^{M}/_{F,}{}^{M}/_{F}$	Ireland
	Simpson, J. *Icelandic Folktales and Legends*. Berkeley: University of California Press, 1972.	F,M,$^{M}/_{F}$	Iceland
Oceania	Ahern, A. and the Mornington Island Elders. *Paint-Up*. St. Lucia: University of Queensland Press, 2002.	F,$^{M}/_{F}$	Aboriginal Australian
	Counts, C. D. A. *The Tales of Laupu*. New Guinea:Institute of Papua New Guinea Studies, 1976.	F,M	New Guinea
	Edwards, R. *Yarns and Ballads of the Australian Bush*. Australia: Rigby Publishers, 1981.	M,M	European Australian
	Heath, J. *Nunggubuyu Myths and Ethnographic Texts*. Canberra: Institute of Aboriginal Studies, 1980.	M,M	Aboriginal Australian
	Keats, N. C. *Bush Yarns of Yester Years*. Self-published.	M,M	European Australian

	Kuschel, R. *Animal Stories from Bellona (Mungiki) Language and Culture of Rennell and Bellona Islands*: Vol. IV. Copenhagen: National Museum of Denmark, 1975.	M,$^{M}/_{F}$	Bellona Is., Solomon Islands, Polynesia
	McKay, H. F. *Gadi Mirrabooka Australian Aboriginal Tales from the Dreaming*. Colorado: Libraries Unlimited, 2001.	F,$^{M}/_{F}$	Aboriginal Australian
	Tobin, J. A. *Stories from the Marshall Islands*. Hawaii: University of Hawaii Press, 2002.	M,$^{M}/_{F}$	Marshall Is., Micronesia
North America	Benedict, R. *Tales of the Cochiti Indians*. Albuquerque: University of New Mexico Press, 1931.	F,$^{M}/_{F,}{}^{M}/_{F}$	Native American
	Dance, D. C. *Shuckin' and Jivin' Folklore from Contemporary Black Americans*. Bloomington: Indiana University Press, 1978.	F, $^{M}/_{F},{}^{M}/_{F}$	African-American
	Einarsson, M. *Icelandic-Canadian Oral Narratives*. Canada: Canadian Centre for Folk Culture Studies Mercury Series Paper # 63, 1991.	M,$^{M}/_{F}$	Icelandic-Canadian
	Hall, E. S., Jr. *The Eskimo Storyteller Folktales from Notak, Alaska*. Knoxville: University of Tennessee Press, 1975.	M,$^{M}/_{F}$	Eskimo, Noatagmiut/ Naupaktomiut
	Hurston, Zora Neale. *Every Tongue Got to Confess*. New York: Harper Collins, 2001.	F,$^{M}/_{F}$	African-American
	Nangak, Z. and E. Arima. *Eskimo Stories from*	M,M,M	Eskimo, east

	Povungnituk, Quebec Illustrated in Soapstone Carvings. Ottowa: National Museum of Canada, 1969.		side of Hudson Bay
	Parsons, E. C. *Folklore of the Sea Islands, South Carolina*. Massachusetts: The American Folk-Lore Society, 1923.	F,$^{M}/_{F}$	African-American
South America	Basso, E. B. *The Last Cannibals A South American Oral History*. Austin: University of Texas Press, 1995.	F,$^{M}/_{F}$	Kalapalo, Brazil
	Chapman, A. *Masters of Animals Oral Traditions of the Tolupan Indians Honduras*. Switzerland: Gordon & Breach, 1992.	F,M	Tolupan, Honduras
	Karasik, C. *Mayan Tales from Zinacantán*. R. M. Laughlin, coll., trans. Washington: Smithsonian Institution Press: 1988.	F,M,$^{M}/_{F}$	Mayan, Mexico

References Cited

Barkow, Jerome H., Leda Cosmides and John Tooby, eds. *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*. New York, Oxford: Oxford University Press, 1992.

Ben-Amos, Dan and Kenneth S. Goldstein, eds. *Folklore Performance and Communication*. The Hague, Paris: Mouton, 1975.

Benedict, Ruth. *Zuni Mythology*: *Vol. 1. Columbia Contributions to Anthropology Vol. XXI.* New York: Columbia University Press, 1935.

Berger, Harris M. and Giovanna P. Del Negro. *Identity and Everyday Life: Essays in the Study of Folklore, Music and Popular Culture*. USA: Wesleyan University Press, 2004.

Berndt, Ronald M. and Catherine H. Berndt. *The Speaking Land*. Australia: Penguin Books, 1989.

Blackwell, Jeannine. "German Fairy Tales: A User's Manual: Translations of Six Frames and Fragments by Romantic Women." Haase, *Fairy Tales and Feminism* 73-98.

Bottigheimer, Ruth B. ed. *Fairy Tales and Society, Illusion, Allusion, and Paradigm:* Philadelphia: University of Pennsylvania Press, 1986.

------ *Grimms' Bad Girls & Bold Boys: The Moral & Social Vision of the Tales*. New Haven: Yale University Press, 1987.

------ "Luckless Witless, and Filthy-footed A Sociocultural Study and Publishing History Analysis of 'The Lazy Boy.'" *Journal of American Folklore* 106 (421): (1993) 259-284.

------ "Silenced Women in the Grimms' Tales: The 'Fit' Between Fairy Tales and Society in Their Historical Context." Bottigheimer, *Fairy Tales and Society,* 115-132.

Boyd, Brian. "Jane, Meet Charles: Literature, Evolution and Human Nature." *Philosophy and Literature* 22.1 (1998): 1-30.

------ "The Origin of Stories: Horton Hears a Who." *Philosophy and Literature* 25 #2: (Oct. 2001) 197-214.

Carrol, Joseph. "Human Nature and Literary Meaning: A Theoretical Model Illustrated with a Critique of Pride and Prejudice." Gottschall and Wilson, *The Literary Animal* 76-106.

Cavalli-Sforza, L. L. and M. W. Feldman. *Cultural Transmission and Evolution: A Quantitative Approach.* Princeton, New Jersey: Princeton University Press, 1981.

Connor-Linton, J. *Chi Square Tutorial*. Http://www.georgetown.edu/faculty/ballc/webtools/web_chi_tut.html Department of Linguistics, Georgetown University, 2003

Dance, Daryl Cumber. *Shuckin' and Jivin' Folklore from Contemporary Black Americans.* Bloomington: Indiana University Press, 1978.

Del Negro, Giovanna P. *The Passeggiata and Popular Culture in an Italian Town: Folklore and the Performance of Modernity*. Canada: McGill-Queen's University Press, 2005.

Deng, Francis Mading. *Dinka Folktales: African Stories from the Sudan*. Martha Reisman, illus. New York & London: Africana Publishing Co., Holmes and Meier Publishers, 1974.

Dundes, Alan, ed. *Little Red Riding Hood: A Casebook*. Madison, Wisconsin and London: The University of Wisconsin Press, 1989.

Farrer, Claire R., ed. *Women and Folklore*. Austin and London: University of Texas Press, 1975.

------ "Introduction: Women and Folklore: Images and Genres." Farrer, *Women and Folklore* vii-xvii.

Gottschall, Jonathan "Patterns of characterization in folktales across geographic regions and levels of cultural complexity: literature as a neglected source of quantitative data." *Human Nature* 14:4 (2003) 365-382 .

------ "Quantitative Literary Study: A Modest Manifesto and Testing the Hypotheses of Feminist Fairy Tale Studies." Gottschall and Wilson, *The Literary Animal* 199-224.

Gottschall, Jonathan and David Sloan Wilson, eds. *The Literary Animal: Evolution and the Nature of Narrative*. Evanston, Illinois: Northwestern University Press, 2005.

Gowaty, Patricia Adair, ed. *Feminism and Evolutionary Biology: Boundaries, Intersections, and Frontiers*. New York, etc.: Chapman & Hall, 1997.

------ "Introduction: Darwinian Feminists and Feminist Evolutionists." Gowaty, *Feminism and Evolutionary Biology* 1-18.

Greenberg, Joseph H., ed. *Universals of Language*. Cambridge, MA: The M.I.T. Press,

1963.

------ "Some Universals of Grammar with Particular Reference to the Order of Meaningful Elements." Greenberg, *Universals of Language* 58-90.

Haase, Donald, ed. *Fairy Tales and Feminism: New Approaches*. Detroit, Michigan USA: Wayne State University Press, 2004.

------ "Feminist Fairy-Tale Scholarship" Haase, *Fairy Tales and Feminism* 1-36.

Hall, Edwin S. Jr. *The Eskimo Storyteller: Folktales from Notak, Alaska*. Knoxville, TN: University of Tennessee Press, 1975.

Hejaiej, Monia. *Behind Closed Doors: Women's Oral Narratives in Tunis*. New Brunswick, N. J.: Rutgers University Press, 1996.

Herscovits, M. J. and F. S. Herskovits. *Dahomean Narrative A Cross-Cultural Analysis*. Evanston: Northwestern University Press, 1958.

Hockett, Charles F. "The Problem of Universals in Language." Greenberg, *Universals of Language* 1-22.

Holbek, Bengt. *Interpretation of Fairy Tales Danish Folklore in a European Perspective*. Helsinki: Academia Scientiarum Fennica, 1987.

Jakobson, Roman. "Implications of Language Universals for Linguistics." Greenberg, *Universals of Language* 208-219.

Jordan, Rosan A. and Susan J. Kaličik, eds. *Women's Folklore, Women's Culture*. Philadelphia: University of Pennsylvania Press, 1985.

Karasik, C. *Mayan Tales from Zinacantan Dreams and Stories from the People of the Bat*. R. M. Laughlin, collector, trans. Washington: Smithsonian Institution Press, 1988.

Kolbenschlag, Madonna. *Kiss Sleeping Beauty Good-Bye.* New York & London: Bantam Books, 1981.

Lerner, Gerda. *The Creation of Patriarchy*. Oxford: Oxford University Press, 1986.

Lieberman, M. R. "Some Day My Prince Will Come: Female Acculturation Through the Fairy Tale." Zipes, *Don't Bet on the Prince* 185-200.

Meyer, Rachel S. "Fluid Subjectivities Intertextuality and Women's Narrative Performance in North India." *Journal of American Folklore* 113 (448): (2000) 144-163.

Mills, Margaret. "Sex Role Reversals, Sex Changes, and Transvestite Disguise in the Oral Tradition of a conservative Muslim Community in Afghanistan." Jordan and Kaličik, *Women's Folklore, Women's Culture* 187-213.

Mitchell, Joan S. *Dewey Decimal Classification and Relative Index Devised by Melvil Dewey*. Edition 21, Vol. 2, Schedules 000-599, pp.395-398. Albany: Forest Press, 1996.

Nielsen, Joyce McCarl, ed. *Feminist Research Methods: Exemplary Readings in the Social Sciences*. Boulder Colorado, etc.: Westview Press, 1990.

Pinker, Steven and Paul Bloom. "Natural Language and Natural Selection." Barkow, Cosmides and Tooby, *The Adapted Mind* 451-494.

Quirk, Randolph and Sidney Greenbaum. *A Concise Grammar of Contemporary English*. New York, etc.: Harcourt Brace Jovanovich, Publishers, 1973.

Ragan, Kathleen, ed. *Fearless Girls, Wise Women and Beloved Sisters: Heroines in Folktales from Around the World*. New York, London: W. W. Norton & Company, 1998.

------ *Outfoxing Fear: Folktales from Around the World*. New York, London: W. W. Norton & Company, 2006.

Rowe, Karen E. "To Spin a Yarn: The Female Voice in Folklore and Fairy Tale." Bottigheimer, *Fairy Tales and Society* 53-74 .

Sawin, Patricia. *Listening for a Life.* USA: Utah State University Press, 2004.

Shumaker, David, ed. *Tales from the Arabian Nights: Selected from The Book of the Thousand Nights and a Night*. Richard F. Burton, trans., annotator. New York: Avenel Books, 1978.

Stephens, John, ed. *Ways of Being Male: Representing Masculinities in Children's Literature and Film*. New York and London: Routledge, 2002.

Stone, Kay. "Things Walt Disney Never Told Us." Farrer, *Women and Folklore* 42-50.

------ "The Misuses of Enchantment: Controversies on the Significance of Fairy Tales." Jordan and Kaličik *Women's Folklore, Women's Culture* 125-144.

Sugiyama, Michelle Scalise. "Food, foragers, and folklore: the role of narrative in human subsistence." *Evolution and Human Behavior* 22 (2001) 221-240.

------ "On the Origins of Narrative: Storyteller Bias as a Fitness-Enhancing Strategy." *Human Nature* 7: (1996) 403-425.

------ "Narrative Theory and Function: Why Evolution Matters." *Philosophy and Literature* 25.2: (2001) 233-250.

------ "Reverse-Engineering Narrative: Evidence of Special Design." Gottschall and Wilson, *The Literary Animal* 177-196.

Tatar, Maria. *The Hard Facts of the Grimms' Fairy Tales*. New Jersey: Princeton University Press, 1987.

------ *Off With Their Heads! Fairy Tales and the Culture of Childhoood*. New Jersey: Princeton University Press, 1993.

Tsing, Anna Lowenhaupt. "The Vision of a Woman Shaman." Nielsen, *Feminist Research Methods* 147-171.

Yocum, M. R. "Woman to Woman: Fieldwork and the Private Sphere." Jordan and Kaličik, *Women's Folklore, Women's Culture* 45-53.

Zenani, Nongenile Masithathu. *The World and the Word: Tales and Observations from the Xhosa Oral Tradition.* Harold Scheub, collector, ed., annotator. Wisconsin and England: The University of Wisconsin Press, 1992.

Zipes, Jack. *The Brothers Grimm: From Enchanted Forests to the Modern World*. New York & London: Routledge, 1988.

------ ed. *Don't Bet on the Prince: Contemporary Feminist Fairy Tales in North America and England.* New York: Scholar Press, 1993.

------ ed. *The Trials and Tribulations of Little Red Riding Hood*. New York & London: Routledge, 1993.

------ *When Dreams Come True: Classical Fairy Tales and Their Tradition*. New York & London: Routledge, 1999.