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Quantifying the Grimm Corpus

Transgressive and Transformative Bodies in the Grimms' Fairy Tales

What do bodies mean in fairy tales? Donald Haase's engagement with the Grimms' fairy tales has offered some hints, ranging from his attention to feminist scholarship on the Grimms ("Feminist Fairy-Tale Scholarship") to his multifaceted review of recent Grimms scholarship that addresses various meanings of bodies in the language and translation of their tales ("Re-Viewing"). Haase has also championed responsible transcultural fairy-tale research in the face of colonization attempts from other fields ("Decolonizing").

Inspired by Haase's work and encouragement, I created a database listing every mention or description of bodies in the Grimms' tales and in five other European tale collections. I detailed the results of this quantitative investigation in my dissertation, generally treating all the tale collections as part of one large corpus. In this essay, however, I refilter the data to solely examine which body parts (nouns, adjectives, and actions) appear in the Grimms, with hopes of adding to the conversation that Haase has generated and curated.

A major thematic focus in this essay is transgression and transformation, especially their gendered dimensions. Bodies are disrupted in the Grimms' fairy tales by many forces: violence, death, and transformation. Wicked queens demand organs, and brothers transformed into swans and back again are left with a single wing. From the oft-repeated phrase "bitter tears" (associated more with women than with men) to the seeping wounds and magical transformations that blur bodily boundaries, a close examination of the body politics of the Grimms' fairy tales reveals authoritarian and subversive ideologies in dialogue throughout the tales. I examine how bodily boundaries are transgressed and violated in a queering of traditional values and canons.

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Using Mikhail Bakhtin's concept of the grotesque body, along with feminist theories of grotesque, abject, and queer bodies, I argue that analyzing bodily transgressions in the Grimms by combining statistical methods with queer and feminist theories yields a fuller picture of how gender, age, and other identities are represented and constructed in the tales. After presenting my general findings, I carry out a case study on the three Grimm versions of ATU 451, "The Maiden Who Seeks Her Brothers," which illustrates the construction of both normative and subversive roles in terms of family, gender, and identity.

This project is an offshoot, one might say an appendage, of my dissertation research completed at Indiana University (2012). I wanted to understand how bodies are represented in traditional fairy tales, which I know is an ambiguous term. However, it seemed to me that much of the writing on bodies in fairy tales was actually considering the bodies in contemporary fairy tales, and I thought that we needed a basis for comparison first. So I decided to analyze how bodies are represented in classic or canonical fairy tales in order to have something to which to compare the bodies in contemporary fairy tales or in folktales and fairy tales from other regions or time periods. I selected six collections to work with, trying to balance oral, ethnographically collected tales with literary tales. Curious about the reception of European tales in the English-speaking world, I used tales in their English-language translation, choosing translations by folklorists where possible.¹ One of the collections I used was the Grimms' *Kinder- und Hausmärchen*, translated by Jack Zipes. To access ideas about the body's construction in the tales, I created a database containing every mention of, description of, or reference to a body in the texts, along with metatextual and contextual information, such as the gender, age, and social class of the character being described, as well as the gender of the tale teller or writer. My analysis showed that masculinity and femininity are written on bodies in different ways, prioritizing beauty, blood, hair, and skin descriptions for women and size, age, violence, and transformations for men. The body references seem to uphold a dichotomous view of the sexes that correlates to mind-body dualism, trapping women in their bodies and skins while men are free to transcend their bodies through transformations. Age was also a significant patterning factor, with younger bodies far outweighing older bodies in the data set. Grotesque and abject bodies appeared on the margins, often as a way of policing social norms.

I entered into my database tales numbered 300 through 749 in the ATU type index, with a handful of exceptions for tales that were paired with "proper" magic tales or whose plots I thought were close enough to include. My sample did not include the numerous animal tales and legends within the Grimms' collection, and I included only references to human bodies or bodies

of supernatural creatures close enough to have social and sexual ties with humans. To analyze the selected 103 tales from the Grimm collection that I entered into an Excel spreadsheet, I used simple statistics and more complex text analysis methods drawn from the digital humanities, which is the term currently used for an interdisciplinary field of studies that are linked by a common concern with the application of technologies to research topics in the social sciences and humanities.² This idea is not entirely new; folklorists have dabbled with technologically aided and quantitative analyses for decades. Relevant to this inquiry is Ruth Bottigheimer's work on gender roles and speech acts in the Grimms' tales. In her essay "Silenced Women in the Grimms' Tales," she lists tales in which female characters lose their voices and notes that speaking roles appear more often in connection with authority figures (126). Bottigheimer returned to this issue in her book *Grimms' Bad Girls and Bold Boys*, counting instances of direct and indirect speech in ATU 510A ("Cinderella") as a test case to make the point that "a detailed analysis reveals that [Wilhelm] Grimm removed direct speech from women and gave it to men" (59), which illustrates links with authority and desirability.

A more technologically based example of this kind of work is Kathleen Ragan's statistical analysis of correlations between the sex of the tellers, collectors, and editors of folktales. She demonstrates "that the predominant gender represented in a tale is related to the gender of the storyteller" (234). Ragan is thus able to use statistics to prove that sex is a significant factor in the transmission of tales; she concludes, "Past and future studies of the folktale as a genre that have not considered gender in the compilation of the data set can be considered compromised" (241). There is also Jonathan Gottschall's literary Darwinist work on gender in folktales (2005), but as Haase has extensively critiqued its shortcomings already ("Decolonizing"), I mention it here only as another example of applying quantitative analysis to fairy tales.

The importance of all these studies is that they encourage scholars to look for the kinds of patterning that manifest in numbers, numerical relationships, and empirically countable units. They lend an objective counterweight to the more subjective modes of analysis that have already proved interesting and fruitful in fairy-tale studies. Carl Lindahl writes of the tale type and motif indexes: "The numbers offer much-needed checks on our subjectivity" (271). I believe that because culture is both empirically experienced and patterned yet subjectively felt and unconsciously processed, we need both quantitative and qualitative methods in our scholarly toolbox. Timothy Tangherlini characterizes the quantitative practices in this way: "Distant reading allows one to discover patterns that might otherwise be obscured by too close attention to the details of a text or performance.... Fortunately, with these methods, one can combine distant reading with close reading" (113).³ What I offer here is a

glimpse of how combining close and distant readings, subjective and objective approaches, with bodies in the Grimms' fairy tales can yield insights into the constructions of gender, age, and other identity factors.

There were 4,189 body references in the 103 Grimms' tales I analyzed. Of these, 1,706 were adjectives and 2,483 were nouns. I divided the nouns into explicit and implicit references—those that appeared explicitly in texts and those that had to be inferred, such as when someone died or was transformed into another shape without the words *death* or *transformation* being used in the text. I refer to these actions that are not body-part nouns as themes. As with the data set from the six collections analyzed in my dissertation, I found that the body parts and descriptions in the Grimms' tales emphasized mobility, expressiveness, and metaphors for internalized identity. For instance, the top ten body-part nouns in the Grimms' tales are *head* (152 mentions), *eyes* (143), *heart* (141), *hand* (123), *hair* (94), *face* (80), *hands* (70), *blood*, (55), *finger* (41), and *feet* (38). A visualization of this distribution, created using Google's Tree Map Gadget, demonstrates how a minority of body-part nouns are used a majority of the time (fig. 1). As we can see from the figure, these ten nouns account for nearly half of the body-part noun uses in the overall corpus.

In contrast, the visualization for all the nouns in the corpus, including the implicit ones, foregrounds death and transformation. This is seen in a mosaic (fig. 2). This mosaic is interesting because it shows us how much is implicit in the construction of bodies in fairy tales, which I believe parallels the broad obscuring of ideological forces at work in fairy tales. The plots of fairy tales are based on people dying, being transformed when they break interdictions, and being bodily revived or revealed at the tale's end; when these bodily acts are linguistically invisible, it helps hide the social systems that assign and reinforce value for certain kinds of bodies, primarily the male and the youthful. Youthful bodies predominate, consisting of 69% of all the entries in the data set, with mature or old bodies making up 31% of the entries in the data set. Men's bodies make up 53% of all gendered entries, and women's bodies make up 47%.

However, the contrast between masculine and feminine bodies becomes all the more charged when we look at the difference between how they are implicitly and explicitly described. Figure 3 shows the explicitly mentioned body-part nouns for male bodies, and Figure 4 shows the explicitly mentioned body-part nouns for female bodies. There are a few intriguing differences, such as the preponderance of hair and blood for women and of beards for men, but otherwise male and female bodies do not appear to differ too much as a whole.

Rather striking in contrast are the visualizations for men's and women's bodies that include the implicit as well as the explicit body references (figs. 5 and 6). We see a lot more death and transformation for men, and beauty is also bumped up in importance for women.

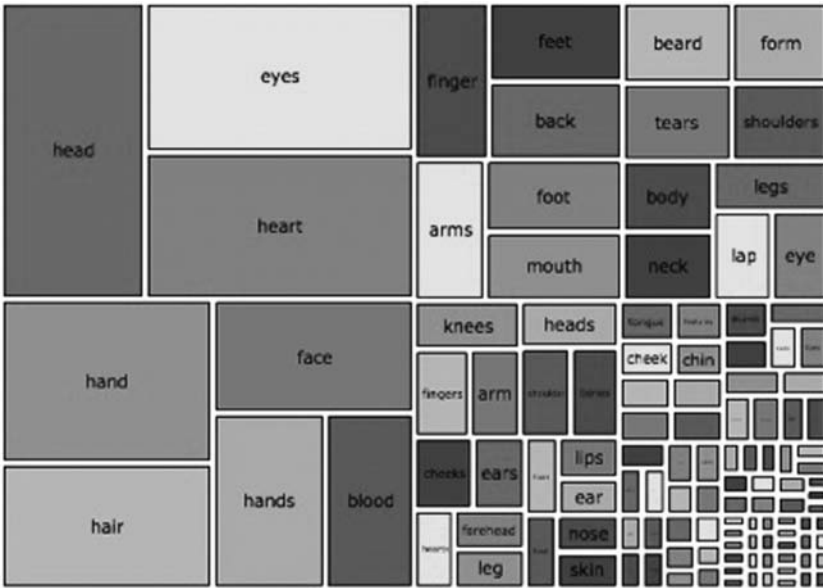


Fig. 1. Explicitly described body-part nouns in the Grimms' fairy tales.

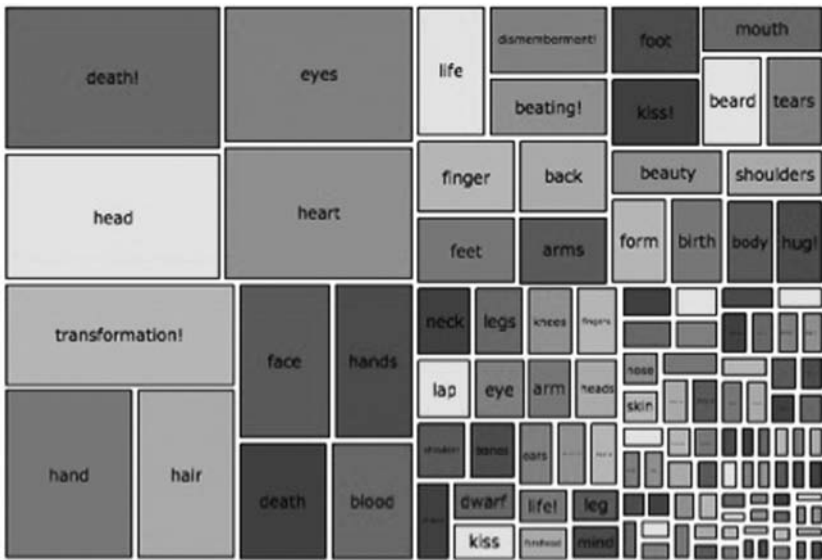


Fig. 2. All body-part nouns (explicit and implicit) in the Grimms' fairy tales.

The adjectives also reinforce this dichotomous view of gender. Figure 7 is the graphic for men's adjectives, and Figure 8 is the graphic for women's adjectives. Almost one-fourth of the adjectives describing women's bodies

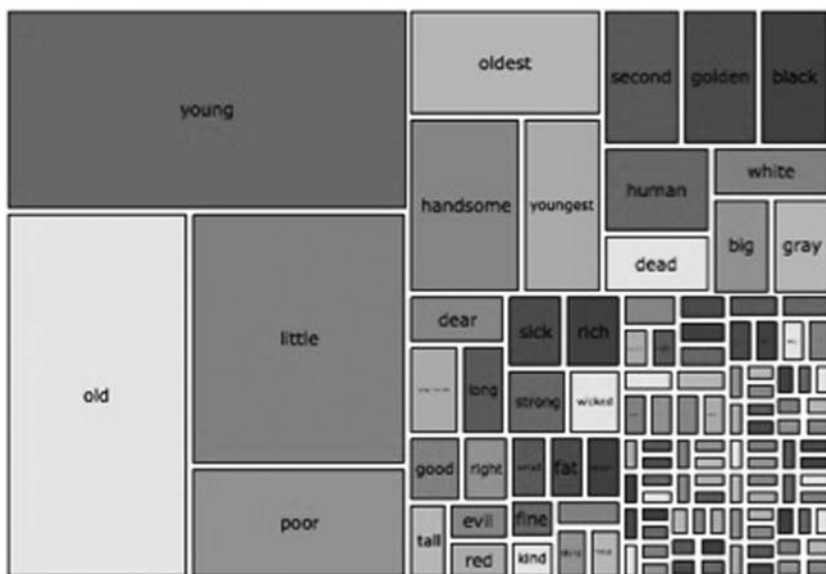


Fig. 7. Adjectives describing men's bodies.

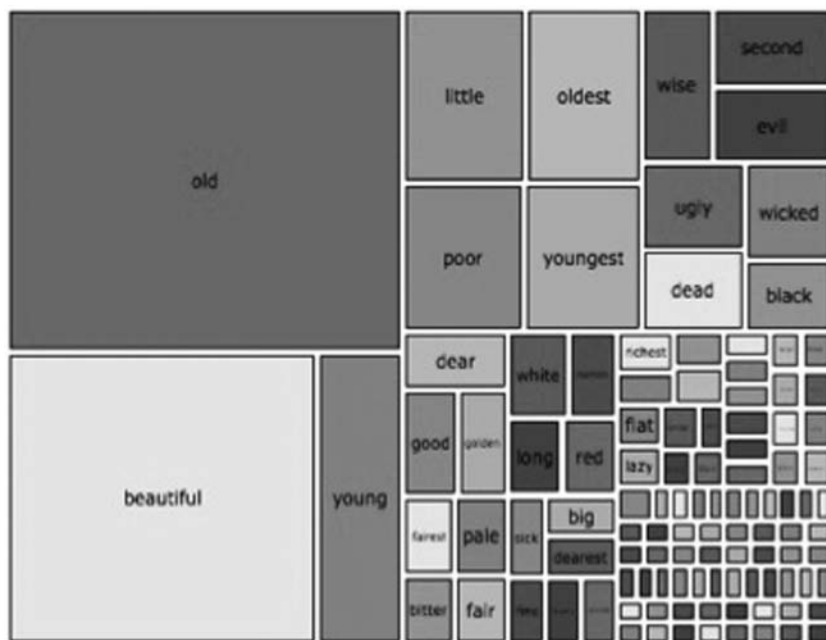


Fig. 8. Adjectives describing women's bodies.

have to do with age, specifically the word *old*, which is interesting given how few of the bodies in my data set actually got coded as mature. Furthermore, beauty and morality figure prominently in women's adjectives, with *beautiful*, *wise*, *evil*, *ugly*, and *wicked* lacking parallels in the men's adjectives, which instead foreground age and size. Notice the weight of the words *little*, *oldest*, *youngest*, and *second*, which tend to refer to heritage and primogeniture.

This discussion demonstrates, backed up by numbers and images, that the gender distinctions already noted by feminist scholars in the Grimms' tales have an empirical basis. We also get the first few glimpses of a queer approach to the tales, because the lacks, absences, and silences within the corpus reveal important information about how social value is assigned. Further, I built subjective elements into my data set, such as noting when a bodily description seemed grotesque or abject. The grotesque body is excessive, transgressive, and frequently gendered, although Bakhtin did not say this so much as his later feminist critics did. As an ideological category, the maintenance and breaking of bodily boundaries can show where selfhood and value intersect.⁴ There were 139 uses of the grotesque tag in my corpus; tellingly, it appeared 90 times with women's bodies and only 27 times with men's bodies, with a handful of additional references for bodies that lacked gender, such as corpses. In accordance with feminist theories of the grotesque, women's bodies tended to seep and leak, whereas many of the male grotesque bodies were bounded; for instance, greedy men were punished with humpbacks ("The Gifts of the Little Folk," ATU 503) or heads were cleanly severed from suitors' bodies ("The Six Servants," ATU 513A). Many of the grotesque descriptions of women's bodies serve normative purposes, as with the fantastic ugliness of the helpers in "The Three Spinners" (ATU 501) and the punishment of Cinderella's step-sisters by having pigeons peck out their eyes. However, some of the grotesque descriptions of women's bodies are sheer spectacle: the dismemberment and eating of the victimized maiden in "The Robber Bridegroom" (ATU 955) and the smearing of the heroine's mouth with blood, implying cannibalism, in "The Six Swans" (ATU 451). These bodily associations follow the pattern that Pauline Greenhill observed in murderous spouse tales, noting that "the dead women's bodies become spectacular, both in the sense of the grotesque and in the sense of their presentation for the purpose of being seen to the horror of those who succeed them" (163). Those who succeed these bloody, dismembered women include not only the characters unlocking bloody chambers but also the audience, driving home the point that violence against women is common, used as decoration as well as for more obvious punitive functions.

Even clean bodily fluids such as tears follow gendered patterns. Of the 30 uses of the word *tears* in my corpus, 25 were associated with women, and

only 5 with men. More often than not, these female characters weep bitter tears: their situations are hopeless and helpless, as with downtrodden Two-Eyes, the heroine of “King Thrushbeard,” Marlene in “The Juniper Tree,” the heroine of “The Virgin Mary’s Child,” and Gretel, who is so sad as to weep bitter tears twice. These examples demonstrate how narrative suffering is written on women’s bodies in a way that naturalizes their pain and almost leads us to expect women to cry in fairy tales.

To return to “The Six Swans,” a version of ATU 451 that I mentioned earlier, I draw in data from the other two versions of that tale type in the Grimms’ collection, “The Seven Ravens” and “The Twelve Brothers,” in order to see how the bodies in these tales reflect or subvert patriarchal values. In my essay “Queering Kinship in ‘The Maiden Who Seeks Her Brothers,’” I examine how the set of tales queers kinship by exposing femininity as constructed and by marking the heteronormative nuclear family as a site of danger, whereas transbiological relationships with the nonhuman are valued. Here, I put my ideas to the test, seeing whether they appear on the body. I take seriously Haase’s critique (directed at Gottschall) of studies that imply that “not only can questions about the collecting, editing, and translating of texts be dismissed, but also, in the study of its cultural content, the text itself becomes burdensome and proves useful only if most of the words require no attention and can be disposed of as superfluous once stories have been mined for specific adjectives and pronouns” (“Decolonizing,” 25–26). As I hope is clear in my analysis, I tuck between close and distant readings of ATU 451, not simply doing word mining and ignoring the plots, contexts, and other folkloristically relevant information about the tales.

Among the three versions of ATU 451 there are 136 body references. Of these, 79 are nouns and 57 are adjectives. Because ATU 451 is generally classified as a feminine tale, I was not surprised to see the noun and adjective distribution skewing toward female bodies, with two-thirds of the gendered nouns and more than three-quarters of the gendered adjectives attached to women. Based on my doctoral work on bodies in feminine fairy tales such as “Cinderella” (ATU 510A), I would have predicted a much greater emphasis on female bodies percentage-wise. However, the statistics for beauty are spot-on, with both the words *beauty* and *beautiful* being used almost exclusively with female characters, and with *beautiful* being the second most common adjective for women in the sample.⁵ Figure 9 shows the distribution of men’s adjectives in ATU 451, and Figure 10 shows the distribution for women’s adjectives.

The proliferation of adjectival descriptions for women as opposed to men confirms that women’s roles are more complex than men’s in ATU 451. In terms of the bodies, then, this group of tales does uphold the fairy-tale mandate for



Fig. 9. Adjectives describing men's bodies in the three Grimms' ATU 451 versions.

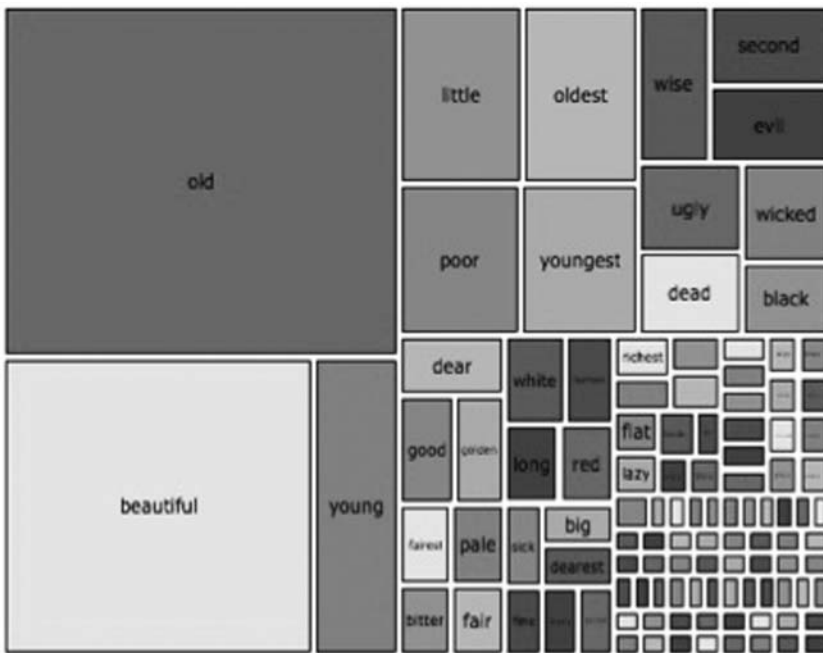


Fig. 10. Adjectives describing women's bodies in the three Grimms' ATU 451 versions.

women to be beautiful, which I found to be true in my close reading in “Queering Kinship” of how the tales mold the female protagonist into multiple feminine roles: sister, wife, mother. The conflict between the social expectations for these roles and the character’s divided loyalties is thus shown to play out on the body. It is also notable that the most frequently used adjective, *old*, was used solely with women and with hostile characters most of the time. Women are not safe in this tale: not from social expectations and certainly not from each other.

The bodies in these tales also match my close reading when it comes to violence and threats. In my dissertation I found that violence and death were much more likely to occur in conjunction with men’s bodies than with women’s bodies, which perhaps has to do with the aggressive and acquisitive nature of the donor test and the villainous acts that male characters are more likely to face. This principle holds for the Grimms’ tales in general, where men’s bodies are almost twice as likely as women’s bodies to be categorized as having to do with violence. But that is not true of the ATU 451 tales; women’s bodies had more than three times as many violent incidences as men’s bodies did. References to death, whether implicit or explicit, were also higher in the overall Grimm corpus for men than for women, averaging about 60%. But in the ATU 451 tales, instances of death grouped with women rather than with men between 70% and 75% of the time. This is strange; one might even say queer. Unlike other feminine tales, such as “Cinderella,” which I found disciplined the protagonist’s body discursively rather than through violence, the ATU 451 tales highlight the violence that is done to women’s bodies. This dovetails with my queer reading of the tales as subversive for their negation of home and family as desirable or safe spaces. These tales are not much safer for men, even though their bodies are less likely to be attacked or killed. The male characters have the only mentions of transformation, showing that their bodily stability is contingent, unsound.

Affection between male and female characters, which I tracked by counting instances of hugs and kisses, solely occurs between the brothers and their sister. The sister gives birth in two of the tales, but only the act of birth is mentioned, not any intimate contact between the sister and the king. Let that sink in: the only affection shown between characters in this grouping of tales is between the brothers and their sister. This supports my reading of this tale as an expression of the Grimms’ own conflicted feelings about their siblings, navigating love and loyalty along with resentment over having to feed so many mouths during troubled times. These data also point toward currently existing hypotheses in fairy-tale studies, such as the notion that we can divide tales into masculine or feminine based on the sex of the active protagonist during the “introductory and central moves of the tale

where the other is immobilized” (Holbek, 161). Holbek’s reference to moves indicates a structural approach to determining the gender of a tale, whereas tallying body references could provide another means of describing the dominant character gender of a tale. The fact that so many of the body adjectives and nouns in the three versions of ATU 451 in the Grimms are associated with women’s bodies could perhaps reinforce the categorization of ATU 451 as a feminine tale. Why the trend is to have more bodily descriptions of the characters whose gender dominates the plot remains an intriguing question.

As I hope I have shown, using the body as a lens through which to examine fairy tales yields insights that support previous interpretations of fairy tales and suggests new questions. The study of tale types such as ATU 451 reveals conflicts between normative and idealistic views of familial and gender roles, as expressed both in close readings and in the bodily descriptions of characters. Quantitative and qualitative methods complement one another and can help us to be attuned to the silences and subtleties that queer and feminist theories inspire us to investigate in the hopes of more fully articulating the many meanings constructed and contained within the Grimms’ fairy tales.

Notes

1. Here I agree with Christine A. Jones and Jennifer Schacker when they write: “For centuries, translation has been an important part of English fairy tale history, and it is our view that translations themselves stand as creative interventions in that history, inviting close reading in the same way that other fairy-tale texts do” (15). In addition, studies of the body in translated fairy tales benefit from the fact that many body motifs are essential to the plots of tales (as when limbs are cut off or when certain features are sought after, whether hair or feet or something else), and so these body parts find themselves carried throughout many translations, into many languages.
2. According to the editors of *A Companion to Digital Humanities*, the main goal of digital humanities research is to use “information technology to illuminate the human record, and [bring] an understanding of the human record to bear on the development and use of information technology” (Schreibman et al.).
3. It is worth noting that Tangherlini’s conception of “distant reading” is distinct from but influenced by Franco Moretti’s idea, which developed from literary study and performs a macroanalysis of texts in different ways.
4. Regard for bodily boundaries is also evident in translations of the tales. In *The Sin-Complex* Martin Sutton discusses scatological topics, which the Grimms apparently had few problems with: “Natural bodily functions such as these are not the only ‘sensitive spots’ encountered by English translators. The human body and especially certain areas on it provide other taboo subjects. These areas have of course predominantly sexual overtones and have had consequently to be

- treated with great care in children's literature in the past" (222). Edgar Taylor's 1823 translation exemplifies this trend, as Sutton notes: "The human body, its natural form, functions, and processes, and especially the feelings arising from these, were all evidently taboo subjects, and as such, in Taylor's view (and those of his immediate successors), they had to be handled very carefully, if not side-stepped altogether" (22).
5. In the Grimms' corpus, the word *beauty* is used with women rather than men 93% of the time, and in the three versions of ATU 451, *beauty* is used with women 100% of the time. Relative to other nouns, any time a noun is applied to a woman in the Grimms' tales, it will be *beauty* 3% of the time, whereas in the three versions of ATU 451, it will be *beauty* nearly 5% of the time. In terms of adjectives, the statistics are similar: the percentage of times any adjective applied to women in both the overall corpus and in the three versions of ATU 451 is about 17%, with *beautiful* referring almost exclusively to women (there are a few instances in the overall corpus where *beautiful* applies to a lovely child or a handsome man).

Works Cited

- Bottigheimer, Ruth. *Grimms' Bad Girls and Bold Boys: The Moral and Social Vision of the Tales*. New Haven, CT: Yale UP, 1987.
- . "Silenced Women in the Grimms' Tales: The 'Fit' Between Fairy Tales and Society in Their Historical Context." *Fairy Tales and Society: Illusion, Allusion, and Paradigm*. Ed. Ruth Bottigheimer. Philadelphia: U of Pennsylvania P, 1986. 115–31.
- Gottschall, Jonathan. "Quantitative Literary Study: A Modest Manifesto and Testing the Hypotheses of Feminist Fairy Tale Studies." *The Literary Animal: Evolution and the Nature of Narrative*. Ed. Jonathan Gottschall and David Sloan Wilson. Evanston, IL: Northwestern UP, 2005. 199–224.
- Greenhill, Pauline. "Fitcher's Queer Bird: A Fairy-Tale Heroine and Her Avatars." *Marvels & Tales* 22.1 (2008): 143–67.
- Grimm, Wilhelm, and Jacob Grimm. *The Collected Fairy Tales of the Brothers Grimm*, 3rd ed. Trans. Jack Zipes. New York: Bantam Books, 2003.
- Haase, Donald. "Decolonizing Fairy-Tale Studies." *Marvels & Tales* 24.1 (2010): 17–38.
- . "Feminist Fairy-Tale Scholarship." *Fairy Tales and Feminism*. Ed. Donald Haase. Detroit: Wayne State UP, 2004. 1–36.
- . "Re-Viewing the Grimm Corpus: Grimm Scholarship in an Era of Celebrations." *Monatshefte* 91 (1999): 121–31.
- Holbek, Bengt. *Interpretation of Fairy Tales*. [1987]. Helsinki: Academia Scientiarum Fennica. 1998.
- Jones, Christine A., and Jennifer Schacker. *Marvelous Transformations: An Anthology of Fairy Tales and Contemporary Critical Perspectives*. Peterborough, Canada: Broadview Press, 2013.
- Jorgensen, Jeana. *Gender and the Body in Classical European Fairy Tales*. Ph.D. diss., Indiana University, 2012.
- . "Queering Kinship in 'The Maiden Who Seeks Her Brothers.'" *Transgressive Tales: Queering the Brothers Grimm*. Ed. Kay Turner and Pauline Greenhill. Detroit: Wayne State UP, 2012. 69–89.

- Lindahl, Carl. "Some Uses of Numbers." *Journal of Folklore Research* 34.3 (1997): 263–73.
- Ragan, Kathleen. "What Happened to the Heroines in Folktales? An Analysis by Gender of a Multicultural Sample of Published Folktales Collected from Storytellers." *Marvels & Tales* 23.2 (2009): 227–47.
- Schreibman, Susan, Ray Siemens, and John Unsworth. "The Digital Humanities and Humanities Computing: An Introduction." *A Companion to Digital Humanities*. Ed. Susan Schreibman, Ray Siemens, and John Unsworth. Oxford, UK: Blackwell, 2004. <http://www.digitalhumanities.org/companion/> (accessed April 18, 2011).
- Sutton, Martin. *The Sin-Complex: A Critical Study of English Versions of the Grimms' Kinder- und Hausmärchen in the Nineteenth Century*. Kassel, Germany: Schriften der Brüder Grimm Gesellschaft, 1996.
- Tangherlini, Timothy R. "Legendary Performances: Folklore, Repertoire, and Mapping." *Ethnographia Europaea* 40.2 (2010): 103–15.