MythFic Metadata:
Exploring Gendered Violence in Fanfiction about Greek Mythology

Julia Neugarten
Roel Smeets
Radboud University, Nijmegen
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This paper uses *MythFic Metadata,* a collection of metadata for a fanfiction corpus about ancient Greek mythology, to explore the relation between types of romantic relationships and violent interactions in fanfiction. We ask:

> *In fanfiction about Greek mythology, are heterosexual relationships more frequently violent than others?*

We define fanfiction as stories written by and for fans, inspired by existing stories, and published online for free.

Violence, especially sexual violence, frequently occurs in ancient mythology, where "many young women (…) suffer sexual violence at the hands of gods" (Deacy et. al. 2002). Stories about gendered violence give visibility to cultural ideas about male strength overpowering female vulnerability and male dominance enforcing female subordination. Research shows that fanfiction can let fans transform culturally dominant narratives (Tosenberger 2014). However, fanfiction can also affirm and perpetuate gender stereotypes (Wills 2013). Thus, fanfiction is *potentially* transformative: it can either question or reinforce ideas about identity categories and the power dynamics between them. This begs the question: does violent fanfiction perpetuate the cultural narrative that casts men as perpetrators and women as victims, or does it subvert this dynamic?

This paper presents first steps in the research project *Achoring and Innovating Classical Motifs in Fanfiction,* which analyzes how contemporary online fanfiction represents and transforms Greco-Roman Antiquity. This is important since recent scholarship has identified a tendency in online spaces, like alt-right communities, to "[read] themselves into Classical Antiquity (...) as a site for discursive negotiation of their place in the history of white male culture" (Zuckerberg 2018). Hardwick (2003) similarly notes "the capacity of classical texts to operate in supposedly deserted artistic and political spaces" which "has enabled social and political critique". Thus, interpretations of Antiquity are becoming a political battleground where Classical texts are used to legitimize varying perspectives on politics and power, including ideas about gender equality.

Digital humanities scholarship (Underwood et. al. 2018; Kraicer & Piper, 2019; Smeets 2021) shows that data-driven analysis can assess representations of gender in fiction. This paper build on such studies, proposing a method to analyze gendered dynamics in fanfiction through metadata.

Methodology

MythFic Metadata provides information on the content and popularity of 5.154 works of completed English-language fanfiction about Greek mythology, gathered from fanfiction repository *Archive of Our Own* (AO3) in December 2022. The corpus contains all fanfiction about Greek myth available on AO3 on that date. *Appendix 1* explains all metadata fields. Two types of metadata are relevant to our research question: relationship categories and additional tags. On AO3, authors can tag their stories with 7 types of relationships (*Table 1*). *Figure 1* visualizes their frequencies in the dataset.

Figure 1: frequency of relationship categories
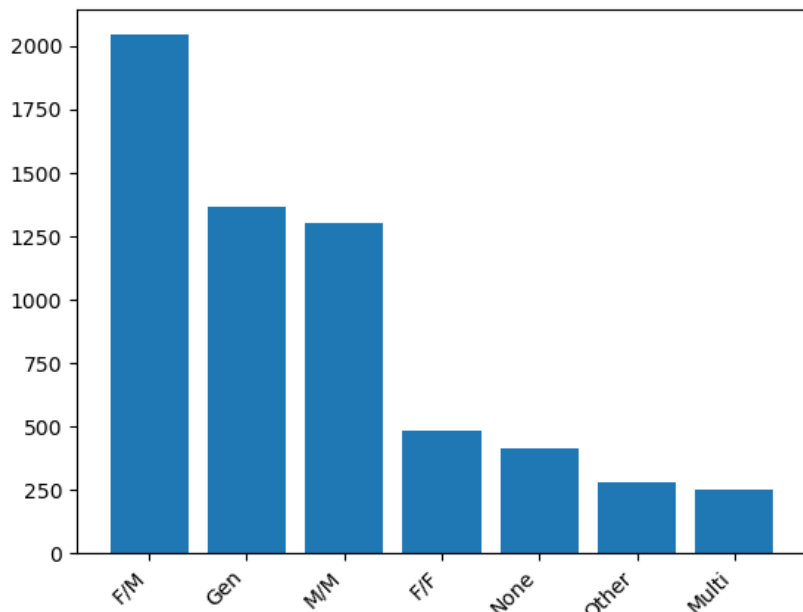
Table 1: Explanation and Frequencies of Relationship Categories

Category Tag	Explanation	Freq.
F/M	Female/Male	2.045
Gen	No romantic or sexual pairings	1.367
M/M	Male/Male	1.301
F/F	Female/Female	481
None	No romantic or sexual pairings tagged	413
Other	Does not fit other tags	278
Multi	Multiple romantic or sexual pairings	250

AO3 also lets authors provide additional tags. These are freeform, meaning they can contain any information. The dataset contains 13.935 unique additional tags. To find stories containing violence, we manually selected all violence-related tags from the 500 most frequently used additional tags in *MythFic Metadata.* Because we examine violence on the interpersonal and not the societal level, we disregarded war-related tags. We also disregarded tags describing mental pain (like PTSD), because this often lacks a clear perpetrator/victim dynamic. Furthermore, we disregarded tags referencing violence against children, because we hypothesize that in those cases age, rather than gender, is the identity category structuring power dynamics. This left 36 tags in 5 violence-related subcategories: *physical, sexual, roughness, captivity,* and *death. Appendix 2* lists the selected violence-tags for each category.

Using additional tags to analyze stories has limitations: tags only reflect what authors choose to disclose, and tagging practices change over time (Pianzola et. al. 2020). Opinions on the meaning of tags, like the distinction between 'Non-Graphic Violence' and 'Minor Violence' may differ. We minimized this problem by grouping tags together, so 'Non-

Graphic Violence' and 'Minor Violence' were combined under *physical.* Finally, tag frequency can be challenging to interpret, because some stories have multiple tags with the same meaning: if a story is tagged both 'Kidnapping' and 'Abduction,' we count it as one instance of *captivity.*

Results

Table 2 lists the frequencies of each violence-type per relationship-category and expresses each violence-type as the percentage of occurrences of that violence-type and as the percentage of total occurrences of that relationship-category.

Table 2: Frequencies and Percentages of Relevant Tags

Type	F/M	M/M	Gen	Other	F/F	Multi	Total
Physical	68	64	57	26	25	16	197
% of violence	34,5%	32,5%	28,9%	13,2%	12,7%	8,1%	
% of relationship	3,3%	4,9%	4,2%	9,4%	5,2%	6,4%	
Sexual	120	78	38	25	35	31	254
% of violence	47,2%	30,7%	15,0%	9,8%	13,8%	12,2%	
% of relationship	5,9%	4,9%	2,8%	9,0%	7,3%	12,4%	
Roughness	51	37	1	7	9	7	91
% of violence	56,0%	40,7%	1,1%	7,7%	9,9%	7,7%	
% of relationship	2,5%	2,8%	0,1%	2,5%	5,2%	2,8%	
Captivity	45	22	20	6	5	2	84
% of violence	53,6%	26,2%	23,8%	7,1%	6,0%	2,4%	
% of relationship	2,2%	1,7%	1,5%	2,2%	1,0%	0,8%	
Death	66	65	51	16	19	8	204
% of violence	32,4%	31,9%	25,0%	7,8%	9,3%	3,9%	
% of relationship	3,2%	5,0%	3,7%	5,8%	4,0%	3,2%	
Total	2.045	1.301	1.367	278	481	250	

Figure 2 visualizes the percentage of each relationship-type per violence-category. For example, the first bar in *Figure 2* shows that 34,5% of all stories tagged *physical* were F/M. *Figure 3* visualizes the percentage of each violence-category per relationship-type.

Figure 2: Relationship Type per Violence Category

Figure 3: Violence Category per Relationship Type
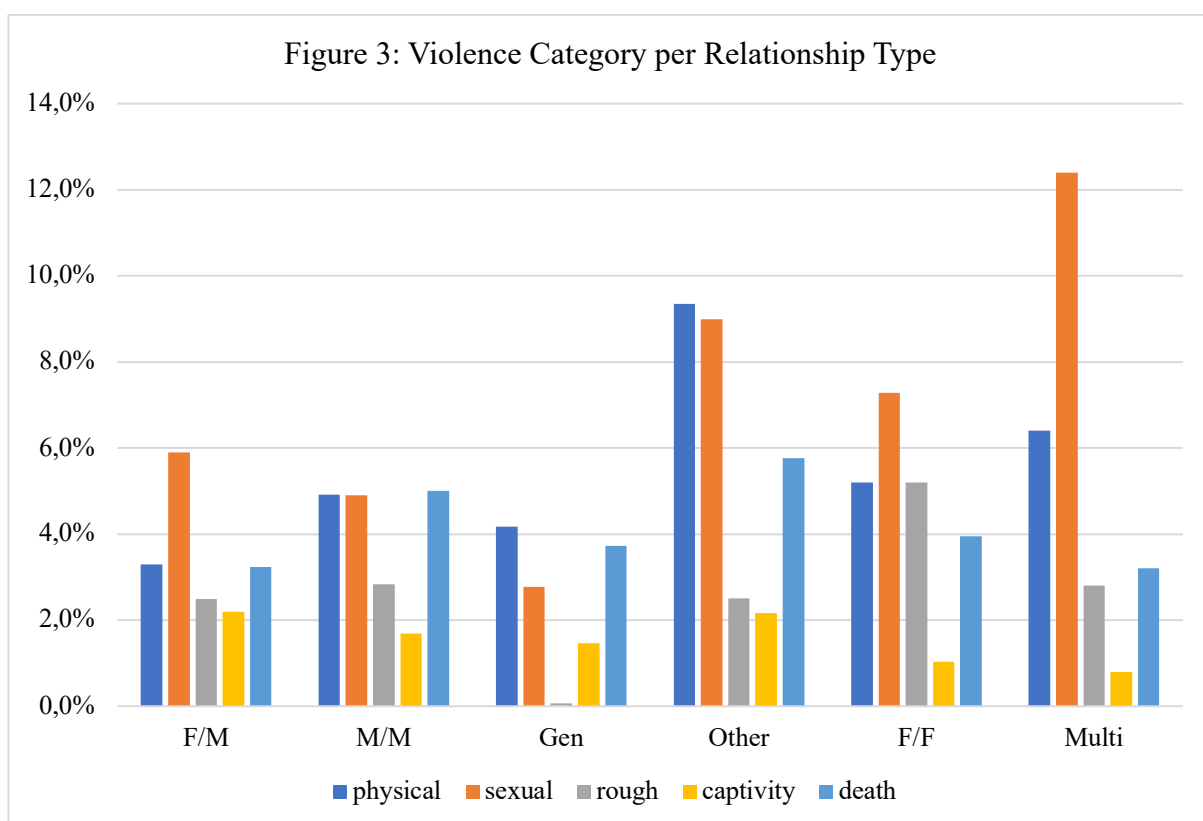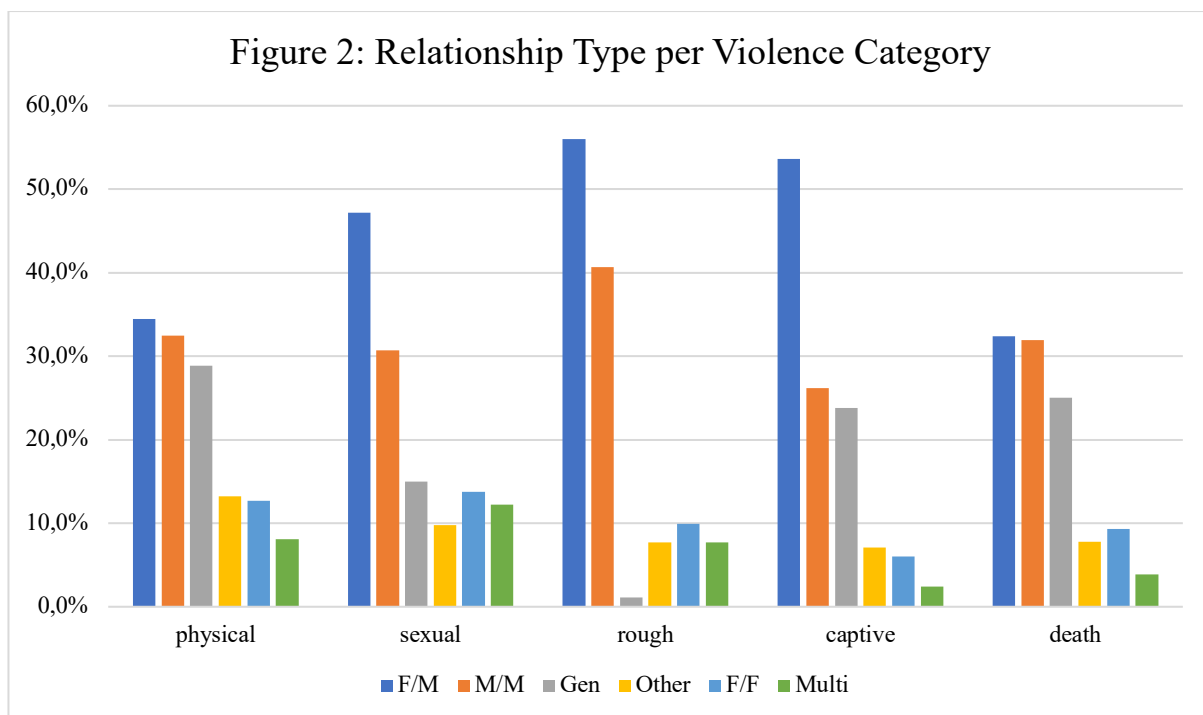
Notably, all violence-types are most prevalent in fanfiction containing F/M relationships, with M/M relationships coming second. The answer to our research question thus appears to be yes: heterosexual (F/M) relationships are more violent. For *sexual*, *roughness* and *captivity*, the differences between F/M and other relationship-categories are most pronounced. We then tested the statistical significance of these results (*Table 3)* and

found that the co-occurrence of the F/M-tag and most violence categories was statistically significant, though not very strong.

Table 3: Pearson's Chi2 Test of Independence and Cramer's V.

Relationship	Statistic	physical	sexual	roughness	captivity	death
F/M	Chi2	2.279a	6.390a	10.367a	6.887a	4.762a
	p-value	0,114	0,011	0,001	0,009	0,029
	Cramer's V	0,021	0,035	0,045	0,037	0,030
M/M	Chi2	5.697a	4.230a	11.668a	.041a	4.933a
	p-value	0,017	0,040	0,001	0,840	0,026
	Cramer's V	0,033	0,029	0,048	0,003	0,031
F/F	Chi2	2.729a	6.244a	.034a	1.153a	.000a
	p-value	0,099	0,012	0,854	0,283	0,992
	Cramer's V	0,023	0,035	0,003	0,015	0,000

Relationship	Statistic	physical	sexual	roughness	captivity	death
Gen	Chi2	.611a	18.328a	30.725a	.323a	.253a
	p-value	0,434	0,000	0,000	0,570	0,615
	Cramer's V	0,011	0,060	0,077	0,008	0,007
Multi	Chi2	4.749a	31.307a	1.621a	1.128a	.397a
	p-value	0,029	0,000	0,203	0,288	0,529
	Cramer's V	0,030	0,078	0,018	0,015	0,009
Other	Chi2	24.447a	10.361a	.959a	.512a	2.497a
	p-value	0,000	0,001	0,327	0,474	0,114
	Cramer's V	0,069	0,045	0,014	0,010	0,022

Because the presence of categories was indicated using zeros and ones, degrees of freedom were 1 in each case. The threshold for significance is a p-value < 0,05, marked in green. Cramer's V measures the strength of the relationship between variables. To interpret Cramer's V, 0,1 = weak, 0,3 = moderate, 0,5 = strong.

Discussion & Conclusion

This metadata exploration is a first step towards the overarching goals of *Achoring and Innovating Classical Motifs in Fanfiction,* to analyze how and why Antiquity is represented and transformed in fanfiction. Interesting next steps would be to examine how fanfiction-tagging practices change over time and relate to story-level features like wordcount. Understanding the interplay between relationship-categories and violence-types requires analysis of fanfiction texts, using methods like text mining and NLP. We also hope to identify which characters fanfiction most often portrays as victims and perpetrators of violence. Additionally, the interaction between character identity categories like gender, race, and age is an avenue for future research.

References

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Data Access Statement

In the Radboud Data Repository, we have uploaded an anonymized version of *MythFic Metadata*, with story-ID's and author usernames redacted, in Excel and csv-format, as well as the Excel-sheet of analysis that was used to create Tables 2 and 3 and Figures 2 and 3. This data is available here: https://doi.org/10.34973/2mye-8468.

On Github, we have uploaded the anonymized *MythFic Metadata* in csv-format, as well as the Jupyter Notebook that was used to calculate tag frequencies, compile tagsets and generate *Figure 1*. This data is available here: https://github.com/julianeugarten/DH_Benelux_2023.

To protect the privacy of the fanfiction community, the scraped fanfiction itself will not be made available. Researchers are free to scrape their own fanfiction-dataset. We recommend using Radiolorian's *AO3-Scraper* (2022).

Appendix 1: metadata fields in **MythFic Metadata**

Note that the work ID and author username were redacted from the anonymized dataset uploaded to GitHub and the Radboud Data Repository.

work_id	A unique identifier assigned to the work by AO3
title	The work's title
author	AO3 username of the work's author
rating	Options: Not Rated, General Audiences, Teen and Up Audiences, Mature, Explicit
category	Options: F/F, F/M, Gen, M/M, Multi, Other 413 stories are not tagged with any category.
fandom	All stories were selected for the tag *Ancient Greek Religion and Lore,* but many are tagged with multiple fandoms.
relationship	Tags naming two or more characters involved in a relationship within the story. A slash indicates a romantic or sexual relationship, while an ampersand indicates friendship or social interaction. 1.244 stories are not tagged with any relationship.
character	Tags listing the characters present or mentioned in the story. 293 stories are not tagged with any characters.
additional tags	These tags can contain all sorts of information about the story, including themes, plot elements, content warnings or the author's reflections. 616 stories are not tagged with any additional tags.
language	In this corpus, all works are in English.
published	Date of initial publication
status	In this corpus, all works are 'Completed.' AO3 also enables authors to label works in progress, but these were excluded in the data collection. AO3 began in 2009, but stories can be backdated.
status date	In this corpus, status date reflects the date that the work was marked 'Completed.'
words	Number of words in the work 60 stories have a wordcount of zero. These are probably other fanworks such as art.
chapters	Number of chapters in the work
comments	Number of comments left by readers. 1.585 stories received no comments.
kudos	Number of Kudos (similar to 'Likes' on Facebook) left by readers. 122 stories received no Kudos.
bookmarks	Number of readers who bookmarked the story. 1.162 stories were never bookmarked.
hits	Number of page views. It is difficult to determine whether hits align with the number of readers, because there is no way to ascertain whether someone who viewed a page truly read it. Only one story received zero hits.

Appendix 2: Additional Tags

These tags were selected manually from the 500 most frequently used additional tags in *MythFic Metadata* to measure story-violence. They are sorted by frequency of occurrence.

Physical Violence

('Canon-Typical Violence', 52)

('Violence', 35)

('Blood', 29)

('Blood and Violence', 19)

('Non-Graphic Violence', 18)

('Minor Violence', 17)

('Past Abuse', 14)

('Torture', 13)

('Cannibalism', 12)

('Pain', 11)

('Implied/Referenced Torture', 10)

Sexual Violence

('Implied/Referenced Rape/Non-con', 73)

('Incest', 44)

('Dubious Consent', 43)

('Rape/Non-con Elements', 33)

('Sibling Incest', 28)

('Past Rape/Non-con', 27)

('Rape', 14)

('Bestiality', 14)

('Gang Rape', 12)

('Mildly Dubious Consent', 12)

('Implied/Referenced Incest', 11)

Captivity

('Kidnapping', 49)

('Abduction', 15)

('Captivity', 15)

('Imprisonment', 11)

Death

('Death', 76)

('Implied/Referenced Character Death', 51)

('Minor Character Death', 36)

('Murder', 32)

('Temporary Character Death', 16)

('Past Character Death', 12)

Roughness[1]

('Rough Sex', 60)

('Biting', 16)

('Hair-pulling', 15)

('Spanking', 14)

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[1] The absence of roughness-related tags in fanfiction tagged 'Gen' indicates that these tags are perhaps most frequently used to indicate the presence of consensual acts. Future research should carefully consider the difference between these tags and the other types of violence operationalized through tagsets in this paper.