Between Hetero-Fatalism and Dark Femininity: Discussions of Relationships, Sex, and Men in the Femosphere

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Abstract

The 'femosphere' is a term coined to describe a group of online ideological spaces for women characterised by toxicity, reactionary feminism, and hetero-pessimism. It is often portrayed as a mirror of a similar group of communities for men, called the 'manosphere'. Although there have been several studies investigating the ideologies and language of the manosphere, the femosphere has been largely overlooked - especially in NLP. This paper presents a study of two communities in the femosphere: Female Dating Strategy and Femcels. It presents an exploration of the language of these communities on topics related to relationships, sex, and men from the perspective of hetero-pessimism using topic modelling and semantic analysis. It reveals dissatisfaction with heterosexual courtship and frustration with the patriarchal society through which members attempt to navigate.

1 Introduction

The 'femosphere' is a term used to describe a collection of women's online ideological spaces which often mirror the vocabularies and logics of the manosphere (Kay, 2024), a loose group of online communities for men characterised by antifeminism and misogyny (Ging, 2017; Bauer, 2024).

While anger in the manosphere is projected outward towards women and society, anger in the femosphere tends to be internal (Kay, 2024; Johanssen, 2023; Evans and Lankford, 2024; Tiffany, 2022). Although the femosphere is not outwardly violent, it promotes a harmful world-view that creates a link between more extreme ideologies. Some femosphere communities are explicitly antifeminist and others follow a version of feminism intertwined with transphobia, racism, and Islamophobia. These views are particularly concerning, given the pipeline between anti-feminism and farright extremism (Mamié et al., 2021). Despite this

potential harm, the femosphere is understudied, especially in the field of natural language processing (NLP).

The analysis presented in this paper focuses on two subforums (subreddits) of the Reddit femosphere centred on women's desires to pursue sex and romance with men, despite strongly pessimistic views on heterosexual courtship. Both the *r/FemaleDatingStrategy* and *r/TruFemcels* communities are situated in members' dynamic with men, with discussion focusing on the similar theme of dating through misogyny. Although outsiders have often considered these communities the same, this study reveals that they approach heterosexual relationships (or lack of) in very different ways.

This paper explores expression of pessimism towards the heterosexual dating experience in the femosphere using psycholinguistic and semantic analysis of community language use and topics of discussion. In doing so, it aims to answer the following questions:

- 1. What are important points of discussion for these communities?
- 2. How do these spaces discuss companionship, sex, and sexuality?
- 3. How does each group describe their perceptions of and dynamic with men?

As these questions are addressed in the analysis, the results also reveal novel observations on how each community perceives several terms related to sexuality and gender. Along with a review of literature on the femosphere, the paper also provides the following contributions:

C1: An application of methods in NLP on the understudied areas of the femosphere and heteropessimism, both reinforcing observations from qualitative literature and presenting novel findings from the analysis

C2: An exposition of how men, relationships, and women's issues are discussed in two different femosphere movements characterised by reactionary feminism

C3: An exploration of two distinct responses to hetero-pessimism unique to each community: 'dark femininity' and 'hetero-fatalism'

The following sections present an overview of existing research on the femosphere and previous efforts in employing methods in NLP to describe gendered ideological spaces online.

2 Background

Academic interest in the manosphere can be attributed in part to a history of violence by self-identified members (Baele et al., 2021). Numerous studies have investigated the language and psychology of the manosphere, particularly the incel¹ community (Ging, 2017; Maryn et al., 2024; Axelsson and Lindgren, 2021; Jaki et al., 2019).

In a study of three gender oriented subreddits, Khan (2020) used topic modelling to discover how users discuss various issues such as family law, sexual violence, and sexism. They found that manosphere communities primarily discuss false sexual assault accusations in addition to sexual assault faced by men, while feminist communities discuss sexual assault faced by women. Ging (2017) investigated ideological tropes on frequently crossreferenced anti-feminist websites. The analysis revealed a rhetoric based on evolutionary biology that engendered misogynist, heterosexist, and racist language. Another study of posts from the five top incel forums found several themes concerning incel identity and culture (Axelsson and Lindgren, 2021).

The Femosphere: While femosphere communities share many features of the male counterparts, it is incorrect to conceptualise it as the female version of the manosphere. A core difference is that, while anti-feminism is a feature of the manosphere, many femosphere movements are defined by 'reactionary feminism' that embraces bio-evolutionary 'truths' of race and gender (Kay, 2024). It claims liberal feminism is harmful to women and is characterised by a sense of fatalism and transphobia (Kay, 2024; Bauer, 2024; Sisley, 2021; Taylor, 2020).

Another part of the femosphere is also characterised by anti-feminism, a history of participa-

tion in white supremacy, and alt-right views on sex and gender (Love, 2020; Hoebanx, 2024). The Tradwife² community, described as "white nationalist mommy vloggers", and *r/RedPillWomen* promote traditional feminine virtues of submission to male partners and procreation (Taul, 2024; Nilsson-Julien, 2024; Love, 2020).

In an analysis of anti-feminism on TikTok, Bauer (2024) noted that influencers use their platforms to shift the attitude of acceptable democratic speech. They promote a political agenda explicitly through political messages and implicitly by politicising their private lives.

In a large study of 14 women-oriented ideological subreddits, Balci et al. (2023) analysed posts from various topics generated with Top2Vec and Google's Perspective API to measure toxicity. Several topics were identified, such as dating, dating apps, housework, and ethnicity. In the femcel³ subreddit, many posts were centred around appearance and one's identity as a femcel. It was also shown that femcels had the highest proportion of severely toxic posts. Identity attacks from the femcel community towards religious minorities also saw an increase when the community migrated to ThePinkPill.co after its ban on Reddit.

Dark Feminity: "Dark feminine" influencers on TikTok encourage female viewers to assert their value aggressively by engaging in emotional manipulation and plotting revenge against men who have wronged them (Kenny, 2023). They position their brand of hyper-individualism as necessary for women to protect themselves from misogyny (Kenny, 2023). Similarly, the Female Dating Strategy (FDS) community on Reddit prides itself on being counter to manosphere misogyny and a safe space for women who date men to vent about relationships with men who devalue, ignore, or abuse them (Sisley, 2021; Taylor, 2020).

In a study of reactionary feminism, Kay (2024) analysed dark feminine influencers and the FDS community. Both "dark femininity" and FDS acknowledge gender inequality and misogyny, but view them as something which cannot be overcome. In response, they relentlessly pursue a strategy of individualism by teaching women to weaponise femininity to navigate contemporary heterosexuality (Kay, 2024; Andreasson, 2024; Scott, 2020). They aim to reconceptualise women's labour in so-

¹Blend of 'involuntary celibate'.

²Blend of 'traditional wife'.

³Blend of 'female incel'.

ciety by encouraging members to target wealthy 'high value' men as financial advice. Andreasson (2024) studied FDS further by analysing podcasts, opinion pieces, forum posts, and the FDS handbook. Relationships were described as a transactional part of a community member's self-actualisation. Members encouraged each other to evaluate potential male partners ruthlessly and act through negative choice. Conservative and feminist values are utilised to maximise female benefit, rather than enforce political ideals.

Femcels: Another part of the femosphere, often related to FDS, are femcels. Femcels claim they are unable to secure romantic relationships as a consequence of misogyny and physical appearance (Aronowitz, 2021; Serrano, 2022; Lysenko, 2022). They feel resentment toward liberal feminism that challenges traditional beauty standards by encouraging women to feel beautiful as they are (Tiffany, 2022). While the two communities are related, FDS strongly rejects any association with femceldom.

In a comparison of *r/TruFemcels* (TruFemcels)⁴ to both FDS and incels on Reddit, Ling (2022) found that both FDS and TruFemcels shared rhetoric of radical feminism. Users discuss male entitlement and hatred towards women generated by the patriarchy, while simultaneously holding anti-feminist views. The importance of aesthetics was a strong theme in discussion (Ling, 2022; Pizzimenti and Penna, 2024).

Bobo (2023) studied posts on femcel forums by entering the community and observing interactions. According to demographics divulged by users, the community was fairly racially diverse and between the ages of 20 and 40. Users expressed profoundly nihilistic perspectives of loneliness and self-esteem.

In a study of 1,200 posts from ThePinkPill.co, Evans and Lankford (2024) analysed how often femcels discussed sex, power, revenge, and frustration. Discussions about sex were 58% about men, while frustrations were 87% about women's struggles and sexual desires. Femcels on ThePinkPill.co also expressed ideas consistent with radical feminism and its theories on sexual politics (Evans and Lankford, 2024; Ling, 2022).

Hetero-Pessimism: Hetero-pessimism describes a feeling of disappointment in heteronormative

romance coupled with denial of the possibility of improving heterosexual culture (Johanssen, 2023; Johanssen and Kay, 2024; Brown, 1993; Marasco, 2020; Seresin, 2019; Holzberg and Lehtonen, 2022). For women who experience heteropessimism, men are considered the root of the problem.

It includes a performative disaffiliation with heterosexuality, expressed as regret, embarrassment, or hopelessness directed at the straight experience and heteronormative "good life" (Seresin, 2019; Holzberg and Lehtonen, 2022). In a study of videos on TikTok, Johanssen and Kay (2024) distinguishes between traditional femcels and 'femcelcore'. Femcelcore influencers aestheticise depression and disillusionment by co-opting the vibe of authentic femcels. However, both groups display a genuine sense of "womanly nihilism" (Johanssen and Kay, 2024; Marasco, 2020).

The following sections describe the methods and data used to explore the themes of the FDS and TruFemcels subreddit communities and their attitudes toward relationships, sex, and men from the perspective of hetero-pessimism.

3 Methods

The method of topic modelling has been chosen to answer the first research question in this paper. The specific topic modelling approach employed in this analysis is used to identify topics, particularly those related to relationships and men. It is performed on both FDS and TruFemcels datasets. Semantic axis and LIWC were chosen to address the second and third research questions. The language used by each subreddit, in the context of these topics, is compared using psycholinguistic and semantic analysis with LIWC (Boyd et al., 2022) and word embeddings using a semantic axis. By comparing the results of LIWC and semantic axis, one can get a sense of how each topic and specific concepts related to gender, relationships, and sexuality are discussed in each community.

3.1 Topic Generation and Assignment

Topics were generated using the TopicGPT framework (Pham et al., 2024) with OpenAI's gpt-4omini model. The benefit of TopicGPT over other topic modelling methods, such as BERTopic (Grootendorst, 2022), is the possibility to tailor topic generation by providing seed topics to guide the model (Pham et al., 2024). If none the seed topics

⁴'TruFemcels' refers specifically to the subreddit, while 'femcels' refers to the broader community.

Seed	Description
Sex	Mentions virginity or sexual experiences and sexual relationships with men.
Companionship	Mentions friends and platonic companionship with men or women.
Men	Mentions men as a group or refers to men with epithets such as 'moid' and 'Chad'.
Women	Mentions women as a group or refers to women with epithets such as 'foid' and 'Stacy'.

Table 1: Seed topics and their description provided as a prompt to the model.

can be applied to a text, the model generates a new one

The ability to guide the LLM with TopicGPT through seeds is leveraged in this paper to tailor generation to the themes of courtship and gender. The author provided four seed topics to the model, as presented in Table 1. These seeds were chosen as they were considered broad enough to address the research questions in Section 1, while allowing the model to generate more fine-grained topics on romance, sexuality, and gender (among others).

Topic generation was run on the 'training' datasets, shown in Table 2. The model was set to stop early if a new topic had not been generated after 200 comments. This number was arrived at after experimenting with different values. The author found that setting this number higher resulted in overly specific topics, while setting it lower generated too few.

After the initial topics had been produced, the output was refined by merging similar topics and removing infrequent ones. TopicGPT uses Sentence-Transformer embeddings to identify pairs of topics with cosine similarity ≥ 0.5 which are then provided to the model. The model, 40-mini in this case, is then instructed to merge topics which are near-duplicates.

Finally, the model assigned the refined topics to a sample of 2,500 comments from each dataset. For each comment and topic, the model provides a justification for its assignment. The final set of topics and assigned comments were manually validated by the author to ensure quality.

3.2 LIWC Analysis

LIWC was chosen due to its extensive application in analyses of social media for opinion mining, stance detection, emotion, and sentiment analysis (Livingston et al., 2024; Misra et al., 2017; Salas-Zárate et al., 2014; Monzani et al., 2021). Analysis of comments in topics related to relationships, sex, and men, was performed with LIWC's basic and expanded English dictionary. The LIWC analysis was conducted on the topic assigned comment

dataset for each subreddit, shown in Table 2.

'Affect' and 'state' were measure the emotional state of users when discussing the topic. Affect measurements include positive and negative emotion, as well as specific emotions like anger, sadness, and anxiety. 'State' indicates how often users use words conveying needing, wanting, lacking, acquiring, fulfilment, and fatigue. As the results for sadness, fatigue, and fulfilment were essentially zero for both subreddits, they have been removed.

3.3 Semantic Axis

To create embeddings reflective of the language of each subreddit, the author fine-tuned two models using gensim's pre-trained *Word2Vec* embeddings with the training datasets (Table 2). Data was pre-processed to lowercase, remove punctuation, and lemmatise. The models were run for 100 epochs with window size 5, minimum count 10, and vector dimension 300.

The updated embeddings were then used to calculate similarity for a list of antonyms with the semantic axis method (An et al., 2018). The semantic axis is defined as the vector between two antonyms. Once the axis vector is obtained, the cosine similarity is computed between the axis vector and the fine-tuned word vector one wishes to compare. The result captures where the word is aligned along the semantic axis. Higher scores mean the word is more closely aligned to the 'positive' antonym than the 'negative'. The advantage of this method over other similarity measures using word embeddings is that it allows one to compare the language of two subreddits in a more constrained manner by limiting comparison to pre-defined antonyms.

The author used *tf-idf* to identify prominent terms for comparison. Considering all comments as one document for each subreddit, the top 50 terms were identified for each dataset. Of these collective 100 terms, the author categorised 30 nouns as 'sexuality', 'gender', or 'relationships'. From these 100 terms, 19 adjectives were also identified. For each adjective, the dictionary was used to determine an appropriate antonym. This resulted in a set

of 19 antonym pairs provided to the model as pole words (Fig. 2). As the semantic axis method can be sensitive to antonym choice, this approach ensures that words used for comparison are grounded in the data rather than chosen arbitrarily.

4 Data

Dataset	Version	Size
FDS	Training	128,878
Femcel	Training	128,878
FDS	Assignment+LIWC	2,500
Femcel	Assignment+LIWC	2,500

Table 2: Breakdown of the sizes for each version of the dataset after size limitations. Here, FDS is r/FemaleDatingStrategy and Femcel is r/Trufemcels.

Comments for both subreddits were collected with the Pushshift API in 2023 (Baumgartner et al., 2020). For TruFemcels, this includes all comments from the subreddit's inception in 2018 to its ban in 2021. While FDS was not banned, the subreddit has been abandoned since 2022 (see Section 7). Data was processed to remove personally identifiable information, such as usernames, in order to preserve anonymity. All comments are in English.

A brief descriptive analysis of each dataset was performed with Python using SciPy's stats module for normal distributions. The mean length was 44.3 words for TruFemcels and 55.6 for FDS. As results for LIWC and the semantic axis can be influenced by document length, it is important to standardize the comment length for both datasets. The upper (100) and lower (10) bounds are determined based on one standard deviation of the mean. The proportion of comments 100 words or fewer was 80% and 10 words or fewer was 30%. As the proportion of comments outside of these bounds was quite small and would likely contribute little to the analysis, comments fewer than 10 words and greater than 100 were discarded. Removing longer comments also has the benefit of improving API latency and reducing costs.

As there was still a large disparity between the number of TruFemcel and FDS comments, the latter was randomly undersampled to match the former. This resulted in 128,878 comments for each subreddit. These were the datasets used in Section 3.1 and Section 3.3.

To optimise processing time and reduce cost, a sample of 2,500 comments was randomly selected

from each dataset for topic assignment. The sample size was determined based on a 95% confidence level with 2% margin of error. This sampling ensured that enough comments were included to capture the average comment in each subreddit. This was the dataset used for topic assignment and analysis with LIWC in Section 3.1 and §3.2. The breakdown for each version dataset of the dataset is presented in Table 2 and plots showing the distribution of comments by length is in Appendix A.

5 Results

The following section presents the results of the topic generation, LIWC analysis, and semantic axis comparison. To make inferences based on these results, the 2500 topic-assigned comments for each dataset were manually reviewed. The author read each comment, making notes of observations and identifying patterns that may provide explanation for the results of topic correlations, LIWC, and semantic axis analysis.

5.1 Topic Analysis

In the first iteration, 286 topics were generated for FDS and 125 for TruFemcels. Many topics were specific issues related to higher level topics, such as 'misandry' and 'misogyny' falling under 'sexism'. These were refined by the model to merge similar topics and remove ones attributed to only a few comments, resulting in 20 topics for each dataset. Table 3 lists the top ten topics for each subreddit and the full list of topics is included in Appendix B. Correlations were calculated with Pearson's (r) to measure topic co-occurrence within each subreddit. The author relies on the conventional thresholds for reporting PearsonBesides the scores reported below, all other topics showed a correlation score close to zero (between 0.0).

FDS: Topics related to binary gender, relationships, and sex were the most frequent for FDS, which is similar to themes observed in qualitative studies (Kay, 2024; Andreasson, 2024; Bauer, 2024; Evans and Lankford, 2024). The abuse topic is indicative of FDS's role as a space for women to discuss their experience with abuse and how they may protect themselves from future partners (Kenny, 2023; Sisley, 2021; Taylor, 2020). Feminism and sexism are also topics for FDS.

No strong correlations were observed for FDS, but a weak negative correlation (r=-0.2) was ob-

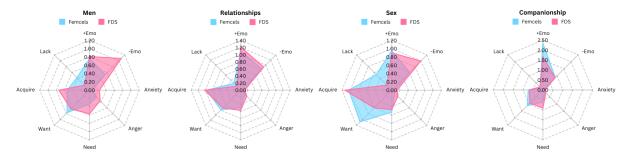


Figure 1: Results of LIWC-22 analysis for affect and state for each of the four overlapping topics. +Emo and -Emo refer to positive and negative emotion.

FDS	Frequency	Femcel	Frequency
Relationships	878	Appearance	719
Women	714	Inceldom	373
Men	473	Sex	257
Sex	398	Companionship	236
Companionship	370	Mental Health	193
Appearance	360	Men	182
Gender Roles	244	Relationships	163
Abuse	216	Race	156
Mental Health	215	Femcels	120
Gender	200	Loneliness	72

Table 3: Top 10 topics generated by TopicGPT before reaching early stopping. 'Frequency' is the total instances that the model generated that topic for a unique comment.

served between the relationships and sexism topics. By reviewing the comments, one observes that users more often discuss issues that fall into the 'sexism' topic in a generalized way whereas discussions of 'relationships' are more often personal. This may also be attributed to FDS's position as a space which stands in opposition to misogyny and encouragement of women to be more selective in relationships (Kay, 2024; Andreasson, 2024).

TruFemcels: For TruFemcels, topics related to physical appearance were most frequent. Mental health, loneliness, and insecurity were also common. This is indicative of the community's role as a support network where users share feelings of loneliness. From reviewing comments, it was observed that many users directly attribute mental health issues such as depression to the isolation they feel from their celibate status. Similar to observations about incel subreddits (Balci et al., 2023; Ging, 2017; Axelsson and Lindgren, 2021), the topics of race and 'incel' identity are also prominent in TruFemcels.

There was a very strong positive correlation (r=0.81) between mental health and health for TruFemcels. Weak correlations were also noted

for celibacy and class (r=0.2), and celibacy and sexual orientation (r=0.31). The interaction between celibacy and sexual orientation is indicative of hetero-pessimism. The correlation between celibacy and class is a novel finding, but can be connected to reactionary feminism's views on women's labour under capitalism (Kay, 2024). Observations from the comments also revealed that users showed resentment towards middle-class women and the advantages available to them due to their ability to invest in education or products and services that enhance their physical appearance.

Of the 20 topics for each subreddit, eight were found to overlap: appearance, men, relationships, sex, companionship, mental health, inceldom, and sexism/misogyny. The topics reveal that both communities commonly discuss societal issues faced by women and how their relationships with men are negatively impacted as a result, consistent with previous research (Kay, 2024; Ling, 2022; Evans and Lankford, 2024)

5.2 LIWC Analysis

Four topics specific to relevant to the theme of hetero-pessimism overlapped for the two subreddits: men, relationships, sex, and companionship. Figure 1 shows the LIWC results for each topic for both subreddits. Results for non-overlapping topics in Appendix C. While the relationships and companionship topics are nearly identical, there are clear differences in how men and sex are discussed by the FDS and TruFemcels communities.

Men: While positive emotion is roughly equal, FDS exhibits overwhelmingly more negative emotion towards men (1.08) compared to TruFemcels (0.53). Similarly, FDS expresses more anger towards men (0.36) than TruFemcels (0.24). As expected, TruFemcels expresses more lacking (0.43) compared to FDS (0.17). An unexpected result is



Figure 2: Word embeddings with a large overall difference across all antonyms. The final point serves to ensure the graphs are of uniform scale and does not represent any data.

that FDS expresses more 'need' (0.57) compared to TruFemcels (0.33). This is attributed to FDS members asserting men 'need' or 'must' do to be a worthy partner, as seen in the comments themselves and previous research (Kay, 2024; Andreasson, 2024).

Sex: FDS also displays much stronger negative emotion towards sex (0.99) compared to TruFemcels (0.61). Negative emotion on the topic of sex in the FDS community is likely due to a stance of sex as risky to women and should be avoided outside of committed relationships. Many comments reveal that users have a negative perception of casual sex and prostitution rooted in anxiety of the risk of contracting lifelong illnesses from male partners. On the other hand, discussion of sex is predominantly about women's sexual desire for femcels (Evans and Lankford, 2024). Further evidence of this is the higher score for 'want' observed in TruFemcels (1.08) compared to FDS (0.66). Unsurprisingly, TruFemcels expresses more lacking (0.53) discussion of sex compared to FDS (0.17).

Companionship: While results revealed similar trends for both subreddits, TruFemcels displays more positive emotion (2.34) in the topic compared to FDS (1.67). As loneliness is also a com-

mon theme for femcels (Andreasson, 2024), they may value platonic companionship more than FDS. Many comments in TruFemcels mention the importance of love from platonic companionship with friends, family, and pets in the absence of romance. For FDS, positive comments largely serve to uplift other users in the FDS community.

5.3 Semantic Axis

The sum of absolute difference between similarity scores⁵ was calculated to determine which words had the greatest deviation between the two subreddits. Of the 30 terms identified in 3.3, 13 presented a difference in magnitude greater than one. As it is not possible to discuss all terms and their associations within the scope of this paper, this section will focus on the words which showed the greatest difference between the two subreddits. As shown in Figure 2, the strongest differences were seen for the words 'single' (1.62), 'ex' (1.84), 'girl' (1.60), and 'femcel' (1.55).

Single: For the word 'single', there was a stronger association with the word 'ignore' in TruFemcels compared to FDS. This is likely because femcels feel their single status is due to being

⁵Represented in the brackets.

ignored by men as a consequence of their appearance. This is reinforced by the stronger association of 'single' to the word 'ugly' for TruFemcels. As suggested by the frequency of the appearance topic for TruFemcels and previous research (Ling, 2022), femcels blame their celibacy on their physical appearance. A much stronger association with 'desire' is observed for the word 'single' in FDS. From the comments, this may be due to women in the FDS community claiming to prefer being single. It can also be attributed to the community encouraging women to remain single over forming relationships with 'low value men', as suggested by the negative sentiment toward men and sex.

Ex: The word 'ex' in these two subreddits is used to refer to an ex-partner. For FDS, 'ex' was more closely aligned with the negative pole words than TruFemcels. This is likely because many members of FDS come to the subreddit after negative dating experiences or abuse from ex-partners (Taylor, 2020; Sisley, 2021). As divorce is also a common topic in FDS, it can be inferred from the closer relationship between 'ex' and 'marry' that users discuss ex-partners and marriage. This was confirmed after checking the comments, where many users mention problems from previous marriages or ex-partners they had hoped to marry but did not.

On the other hand, 'ex' tends to align more with the positive pole words for TruFemcels. Unlike FDS, 'ex' for TruFemcels is more similar to 'other'. As 'ex' is also more closely aligned with words like 'cute', 'attention' and 'success'. After reviewing the comments, it was observed that TruFemcels users often discuss ex-partners who were unfaithful with or ended the relationship for other women perceived as more attractive.

Girl: FDS more strongly associates the word 'girl' with 'control', while it was more similar to 'freedom' for TruFemcels. A lot of discussion in FDS focuses on misogyny, so this partly due to conments on FDS discussing patriarchal society controlling girls' actions in relationships. More evidence in support of this interpretation is the closer association of 'girl' to 'hate', 'disgust', and 'safe', as well as the prevalence of the gender roles and abuse topics for FDS. Additionally, many comments also discuss how girls can and should take control of their relationships and men.

On the other hand, 'girl' is more similar to 'freedom', 'cute', 'love', 'real' and 'desire' for TruFemcels. The comments revealed that many users dis-

cuss how girls are perceived by male incels as having more sexual opportunities or 'freedom' by virtue of being a girl, particularly girls who are considered conventionally attractive or 'Stacies'.⁶

Femcel: The word 'femcel' is more similar to the negative pole words for FDS compared to TruFemcels. The FDS community appears to have a negative perception of femceldom. Many comments on FDS serve to differentiate the community from femcels, often denigrating them in the process. An interesting observation is the similarity between 'femcel' and 'safe' for FDS. In the comments, it was observed that several users claim to envy femcels because their ugliness' makes them less likely to be 'targets of harassment' from men and more likely to form a relationship based on 'personality' rather than appearance.

Other: Several words, such as 'bisexual' (1.67), 'date' (1.52), 'boy' (1.37), and 'transgender' (1.36), showed a very large difference for only one or two antonyms. 'Bisexual' was very close to 'single' for FDS (-0.5), whereas the term was neutral for TruFemcels (0.03). After reviewing comments, it was found that this can be attributed to comments hetero-pessimism from bisexual women expressing a preference to date women or remain single rather than date men, or biphobia directed toward bisexual men.

The word 'date' was more similar to 'freedom' (0.13) and 'notice' (0.16) for FDS and neutral for TruFemcels. Reviewing the comments revealed that FDS encouraging members to date several men simultaneously and discussing strategies to gain the attention of 'high value' men. While 'boy' was neutral in TruFemcels, FDS showed more similarity with 'disgust' (-0.13). As shown in §5.2, FDS exhibits stronger negative emotions in relation to men.

The word 'transgender' is closer to 'disgust' for TruFemcels (-0.2). Although members denied the prevalence hateful language in the community, transphobia was cited as one of the reasons for its ban from Reddit. An interesting finding is that the word 'transgender' is slightly closer to 'desire' for FDS (0.08). Upon reviewing the comments, this is likely due to users othering transgender women and men by describing them as men or women who desire to be the opposite gender.

 $^{^6\}mathrm{A}$ manosphere term for a conventionally attractive woman.

6 Discussion

Both communities exhibit hetero-pessimism which they express through strong negative sentiment towards relationships with men. As noted by Kay (2024) and Andreasson (2024), there is also a lot of overlap between liberal feminist values and "reactionary feminism". However, the findings show there is an obvious difference in the strategies each community uses to navigate these issues as they participate in straight culture.

Shown by the LIWC analysis and the closer association to the negative pole words for 'boy' and 'ex', the FDS community has a very negative opinion of men. The topics of abuse, feminism, and safety, also suggest that FDS discusses feminist issues. "Dark femininity" encourages women to get back at men who have wronged/abused them and protect oneself from misogyny (Kay, 2024; Kenny, 2023). The connections between 'single' and 'desire', 'girl' and 'control', and the negative correlation between the topics of relationships and sexism suggest that FDS promotes dark feminine strategies disguised as feminist values and empowerment.

The FDS community's negative sentiment towards the sex topic may also indicate dark femininity. By abstaining from casual sex, women protect themselves from the harm of getting trapped a relationship with men who "add negative value" to their lives. The positive sentiment in comments on relationships and companionship, along with topics related to family, suggests that these are important for FDS. Similar to "dark feminine" influencers, the end goal of FDS users is forming a committed relationship with a 'high value' man who will provide for them and their children (Kay, 2024; Kenny, 2023).

While the TruFemcels community also expresses views consistent with radical feminist values, the focus is primarily on the unfair importance placed on women's physical appearance. Femcels attribute their inability to form sexual and romantic relationships to their looks (Ling, 2022; Pizzimenti and Penna, 2024; Balci et al., 2023). This is exemplified by the presence of topics like appearance, fatness and body image, as well as the close association between 'single' and 'ugly'. Although TruFemcels does not display as much negative sentiment towards men as FDA, the correlation between celibacy and sexual orientation suggests they also exhibit hetero-pessimism. The associa-

tions between 'ex' and 'success', 'attention', and 'other', along with the topics of loneliness and mental health topics, suggest that femcels' inability to form relationships affects their mental health.

As femcels feel barred from romantic relationships due to factors perceived as outside their control, their response to hetero-pessimism is a fatalistic internalisation of lookism resulting in resentment expressed toward men and attractive women.

7 Conclusion

This paper presents an analysis of two communities in the femosphere using topic modelling and sentiment analysis, focusing on how each expresses hetero-pessimism and reactionary feminism. It analyses the language and sentiment expressed in discussions of topics related to relationships, sex, and men to show that both communities exhibit hetero-pessimism, but respond to it with different coping mechanisms: dark feminity and fatalism. It draws upon previous studies grounded in feminist theory to interpret the results.

Both communities discuss how sexism affects companionship, in terms of safety for FDS and access for TruFemcels. Although they present rhetoric consistent with liberal feminism, language towards sex, race, and gender identity is more aligned with anti-feminism. Both FDS and TruFemcels show clear signs of hetero-pessimism. Despite having positive views on relationships and companionship, the communities show a negative opinion of women's role in traditional heterosexual courtship and men in general.

In response, FDS promotes rhetoric consistent with "dark femininity" by encouraging uncompromisingly high standards for themselves and potential partners. TruFemcels displays a sense of heterofatalism, acting as a support group to vent frustrations about loneliness as a result of immutable factors like appearance. Members internalise loneliness and insecurity, directing blame at men and 'Stacies' for their lack of companionship.

Both communities appear to view the negative aspects of straight culture and misogyny as unchangeable. Although these communities purport to oppose misogyny, the type of reactionary feminism and hetero-pessimism they portray effectively reproduces the fatalistic and conservative logics of anti-feminism.

Limitations

There are two important limitations of this paper. The first is that the data used in this analysis is limited to only two forums on Reddit up to 2022. After its ban, the TruFemcels community on Reddit migrated to ThePinkPill.co. However, as of mid 2023, ThePinkPill.co has become defunct. The FDS community also migrated to its own platform TheFemaleDatingStrategy.com shortly after Reddit's ban of TruFemcels, which remains somewhat active. Although both the FDS and TruFemcel communities originated on Reddit, users have largely moved on to more closed forums. While it is possible to include more recent data for FDS, this was decided against as there is no publicly accessible data for Femcels with which to compare it. As a consequence, the language used in the data may not be wholly representative of the communities at present. As noted by Balci et al. (2023), when the TruFemcels community migrated to ThePinkPill.co, users expressed more toxic language. It is possible this trend has continued for both FDS and TruFemcels in their current spaces.

Furthermore, the subreddits included in this analysis do not cover all femosphere communities. In the future, it may be beneficial to include r/RedPillWomen and r/ForeverAloneWomen in the analysis.

Finally, model cost and time to train were a significant limiting factor. According to the authors, TopicGPT performs sub-optimally for open source alternatives (Pham et al., 2024). As such, it is necessary to use closed models, such as OpenAI's, which can be costly and increase runtime because of rate limits.

Ethical Considerations

Given that the data potentially contains sensitive information, care must be taken in order to ensure that user privacy is respected when processing the data. Although the raw data is publicly available online from several Reddit archives and datasets published for previous studies, the author of this paper took extra steps to anonymize comments for the purpose of academic research. All usernames, emails, Discord handles, etc. were replaced with generic fillers (such as 'user'). Additionally, comments were only reviewed by the author. No direct examples are included in the paper given the potential for bad actors to connect quotes to authors through public data.

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A Dataset Statistics

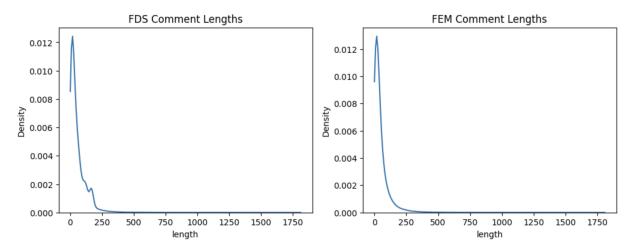


Figure 3: The density of comments by length per dataset. The *x* axis shows the comment length in tokens and *y* shows the density of comments with that length. For both datasets, the majority of comments are clustered in the 10 to 100 words range.

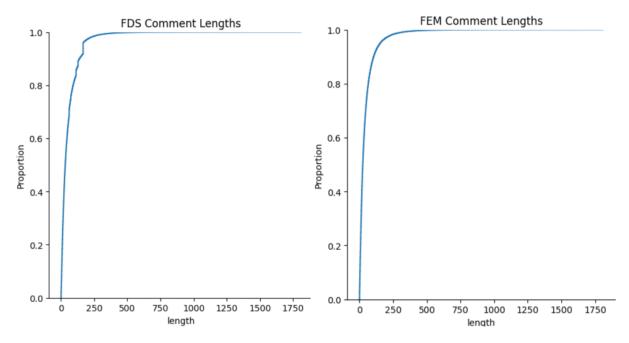


Figure 4: Distribution plots for FDS and TruFemcels. The *x* axis represents comment length in tokens and the *y* axis represents the proportion of comments of *x* lengths and lower. Both plots show that approximately 80% of comments are 100 tokens or fewer.

B Topic Results

Topic	Count	Description
Appearance	719	Mentions physical attractiveness and the concept of "looksmatch" in relationships.
Inceldom	373	Mentions the concept of incels and the social dynamics surrounding them.
Sex	257	Mentions sexual experiences and the desire for sexual relationships.
Companionship	236	Mentions the longing for connection and relationships with others.
Mental Health	193	Mentions the implications of actions like getting tattoos of others' names as a reflection of mental health issues.
Men	182	Mentions "Chads" in relation to attraction to intelligent women.
Relationships	163	Covers the broader topic of romantic and social relationships, including dynamics between genders.
Race	156	Mentions the need to recognize individuals as humans beyond stereotypes.
Femcels	120	Mentions individuals identifying as femcels, discussing their experiences and perceptions related to companionship and societal expectations.
Loneliness	72	Reflects on feelings of isolation and the fear of dying alone without companionship or children.
Misogyny	62	Mentions the negative attitudes and behaviors towards women, particularly in the context of incels and their beliefs.
Fatness	58	Mentions body size as a factor in perceived attractiveness.
Insecurity	52	Mentions feelings of insecurity and vulnerability in social situations.
Health	45	Mentions obesity as a lifestyle choice and its implications on companionship and activity levels.
Hate	44	Discusses the production of hate memes, reflecting on societal attitudes and conflicts.
Intolerance	44	Mentions intolerance of opposing views.
Class	43	Mentions socioeconomic status and the impact of financial circumstances on relationships.
Body Image	42	Mentions the desire for physical transformation and self- improvement, often associated with societal standards of attrac- tiveness.
Sexual Orientation	40	Mentions sexual orientation, specifically referencing being gay.
Celibacy	37	Refers to the practice of refraining from marriage and sexual relationships.

Table 4: Topics generated by the LLM for the TruFemcels dataset after refinement. The leftmost column is the topic, the middle column is the number of comments this topic was generated for, and the rightmost column is the description of the topic provided by the LLM. There are 20 topics total.

Topic	Count	Description
Relationships	848	Addresses dynamics and issues within romantic relationships, including trust and communication.
Women	714	Mentions the existence of spaces for women and their experiences.
Men	473	Discusses men's behavior in relationships and their intentions regarding sexual encounters.
Sex	398	Mentions the context of consent and the serious implications of sexual behavior.
Companionship	370	Mentions the dynamics of relationships and the importance of setting boundaries with others, including strangers.
Appearance	360	Mentions the perception of wealth and good looks in relationships.
Gender Roles	244	Explores the societal expectations and behaviors associated with being male or female.
Abuse	216	Mentions the act of manipulation and abuse within relationships.
Mental Health	215	Addresses the impact of mental illnesses on dating and relationships.
Gender	200	Mentions the concept of gender and the distinction between males and females.
Empowerment	187	Mentions the concept of empowerment in relation to power, influence, and safety.
Feminism	175	Mentions the empowerment of women and the impact of individual actions on the collective experience of women.
Sexism	167	Highlights the deceptive and manipulative behaviors of men towards women, indicating a broader issue of gender inequality.
Communication	161	Mentions issues related to understanding and expressing feelings in relationships.
Family	139	Introduces the concept of family planning and the desire for children within relationships.
Financial Independence	129	Discusses the implications of financial responsibilities in relation- ships, emphasizing the importance of maintaining one's own finan- cial boundaries.
Age Disparity	98	Mentions the implications and perceptions surrounding relationships with significant age differences.
Safety	89	Mentions the importance of personal safety and precautions taken when meeting new people or viewing places.
Divorce	88	Mentions the legal and emotional process of ending a marriage.
Inceldom	81	Mentions the experiences and perspectives of involuntarily celibate individuals.

Table 5: Topics generated by the LLM for the FemaleDatingStrategy dataset after refinement. The leftmost column is the topic, the middle column is the number of comments this topic was generated for, and the rightmost column is the description of the topic provided by the LLM. There are 20 topics total.

C LIWC Results

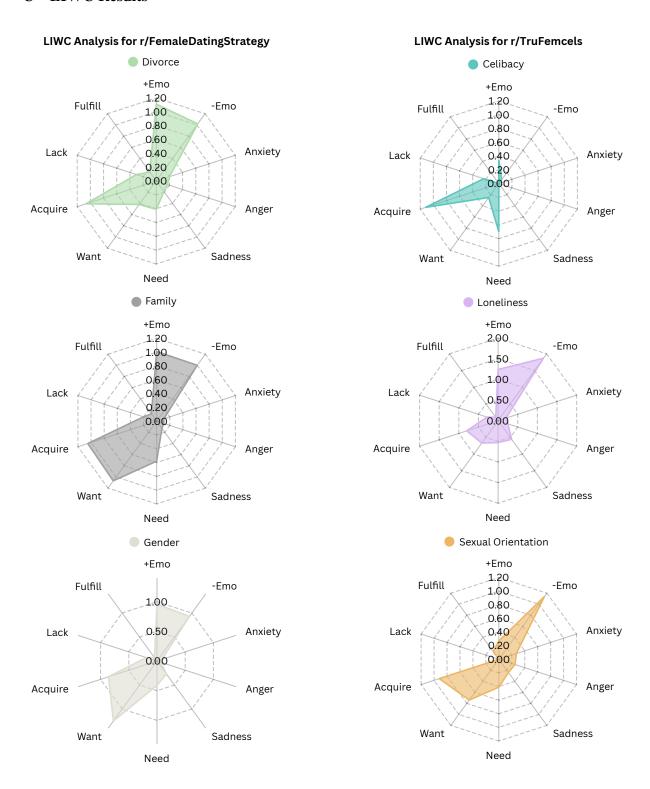


Figure 5: LIWC results for topics which fall under the classification of relationships, sex, or gender. The radar plots show the results of LIWC analysis performed on sampled datasets for both FDS and TruFemcels. The left column shows the results for three topics from FDS. Two topics, 'divorce' and 'family', are classified as relationships. While the 'loneliness' topic does not directly relate to the theme, loneliness is tangential to the relationship topic for TruFemcels so it has been included. Like 1, +Emo and -Emo are positive and negative emotion respectively.

D Semantic Axis Results

Word embeddings with a large difference for only a few antonym pairs. The final point serves to ensure the graphs are of uniform scale and does not represent any data.

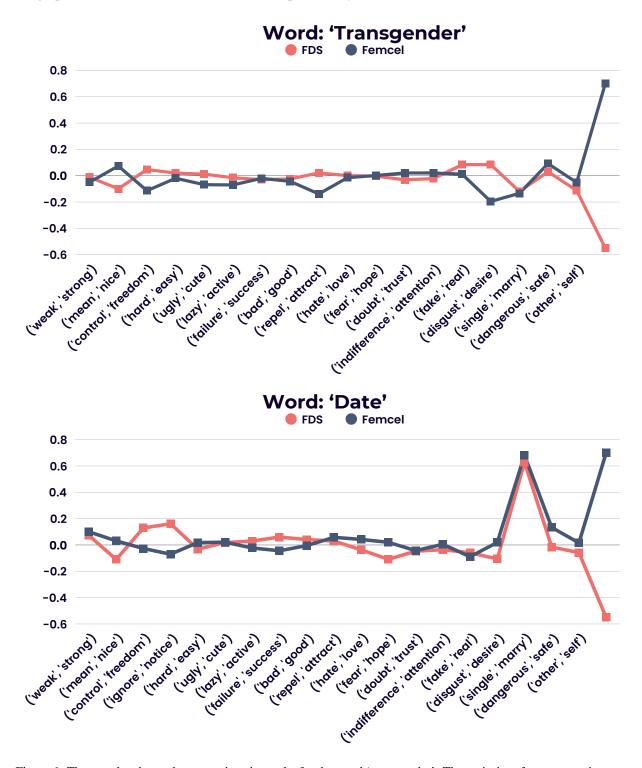


Figure 6: The top plot shows the semantic axis results for the word 'transgender'. The majority of antonym pairs are equal for both datasets, but there is a a difference between 'mean' and 'nice', 'control' and 'freedom', and 'disgust' and 'desire'. For the word 'date', there was a difference between the two datasets for the antonyms 'mean' and 'nice', 'control' and 'freedom', and 'ignore' and 'notice'.

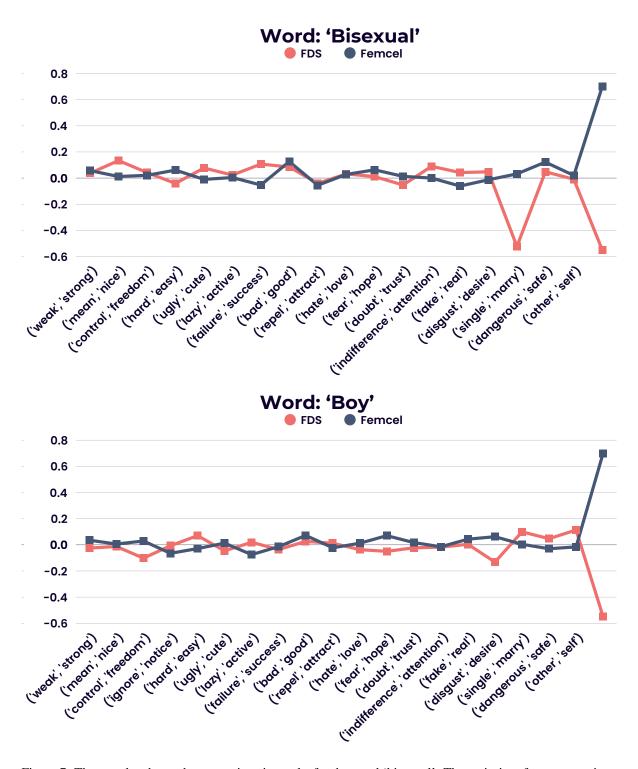


Figure 7: The top plot shows the semantic axis results for the word 'bisexual'. The majority of antonym pairs are equal for both datasets, but there is a a difference between 'mean' and 'nice', 'failure' and 'success', and 'single' and 'marry'. For the word 'boy', there was a difference between the two datasets for the antonyms 'control' and 'freedom', 'disgust' and 'desire', 'single' and 'marry', and 'other' and 'self'.