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Gendered Language and Misinterpretations of User Gender on Reddit

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Abstract: With gender being omnipresent and an inseparable aspect of our identity, misunderstandings and incorrect assumptions about gender are bound to occur in the anonymous settings of social media, where we spend an increasing amount of time. This thesis investigates how misinterpretations of gender are made on Reddit, as well as the (implicit) attitudes redditors communicate having about gender and its expression. In doing so, this research contributes to an unexplored area of language and gender.

The data used consists of a selection of comment threads posted in late 2023, where a misinterpretation of a redditor's gender occurs. A mixed methods approach with an emphasis on qualitative analysis is adopted through approaching the data with corpus-assisted discourse studies. A sample of the original posts, comments, or a combination of the two were analyzed for such linguistic features which in earlier research have been found to be indicative of either binary gender; the purpose is to see how gendered features are used on Reddit. Further, the distribution of the incorrect assumptions was calculated and the discourse following them analyzed to gain an understanding of how gender and its explicit expression is received on the platform. This thesis also investigates *how* the assumptions were made in terms of use of gendered words.

All threads contained gendered features, and all contained both feminine and masculine features, except for one thread, which only contained masculine features. Most often redditors were incorrectly thought to be male, which reflects the general (jocular) understanding that "there are no women on Reddit." When a correction of a misinterpretation received a response, it was more likely to be accepting than negative. Even so, it was more common not to see any discourse after a correction had been posted, rather than finding it receive either a positive or a negative response. Assumptions were most often gendered nouns (e.g., 'man,' 'girl') serving a vocative function. The findings show that while redditors generally are at least not unreceptive to being corrected on misgendering others, they do rely on fairly traditional ideas of what constitutes a man or a woman when making their assumptions. Further research is needed for instance to address a greater number of threads or gendered features, or the effect a user's L1 may have on how gender is approached in anonymous CMC settings.

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1 Introduction

Gender is ubiquitous. It is imposed on us from birth or in some cases even before we are born, and it is reinforced in our upbringing by our caretakers, peers, and society (Eckert and McConnell-Ginet 2013). We express gender in our conscious choices such as the way we dress or the activities we engage in, and in the social roles we play as mothers, sons, or siblings, although one could also argue that said activities and roles are inherently gendered rather than a catalyst for the expression of it.

Regardless of which way one wishes to approach the subject of gender, it is clear that it at least appears intrinsic or inescapable. Thus, we also make subconscious choices which communicate information about gender in the way we behave, speak, or write. This is true also in anonymous settings such as discussion forums on the internet despite the common misconception that one could be anyone or anything when the constraints of the physical body are removed through perceived invisibility (Shapiro 2015). As the understanding of gender in western societies grows ever more complex it is no wonder that despite having access to (subconscious) knowledge about gendered features of language we should make misinterpretations of (seemingly) anonymous internet users' gender. This thesis explores the phenomenon of incorrect assumptions of gender on Reddit as it relates to linguistic choices.

More specifically, I investigate the following aspects:

1. How does Redditors' use of gendered features reflect masculine and feminine language and how are the features balanced?
2. How are the misinterpretations made? Is one kind of misinterpretation more common than another, and if yes, what are the underlying reasons?
3. How are misinterpretations of gender and the corrections thereof received?

The purpose of the first research question is to explore the gendered features specifically in the posts, comments, or both posted prior to a misinterpretation of gender and to see whether there is a great difference in how frequently redditors use masculine and feminine features. The second research question addresses the implicit attitudes redditors have about their fellow Reddit-users; if redditors are more often mistaken for men while they in fact are women, this tells us that the age old "women don't exist on the internet" holds true on Reddit even in the 2020's. The

misinterpretation must, of course, be communicated somehow; what words are used? Finally, the last research question seeks to further expand on the gender attitudes or ideologies on Reddit.

To answer the research questions, I utilize a selection of comments from a corpus of 100 million comments posted to Reddit over the course of two months and make use of corpus-assisted discourse studies (CADS) to analyze the searchword hits as well as existing understanding of gendered language. As far as I am aware, this is the only research on misinterpretations of gender in computer-mediated communication (CMC) settings that has been carried out to date, and thus it addresses a gap in the understanding of how language and gender and anonymous CMC settings interact. Koski's (2021) master's thesis, which I discuss in section 2.2, explores the kinds of assumptions about gender people make based on posts. Koski's thesis, however, does not focus specifically on incorrect assumptions as I do; this is where I expand on existing understanding of assumptions about gender.

2 Theoretical Background

In this section I discuss the theoretical background of this thesis. First, I discuss existing literature on language and gender (subsection 2.1), addressing existing notions of feminine, masculine, and gender nonconforming language, respectively. I then address computer-mediated communication (CMC, subsection 2.2), which is followed by a discussion Reddit as a platform (subsection 2.3). A brief introduction to corpus-assisted discourse studies (CADS, 2.4) concludes this section.

2.1 Language and Gender

When approaching gender in this thesis I adopt the position that gender is performative, that is, that gender is something we do (that is, the view that gender is socially constructed, also known as a performative view of gender) rather than something we inherently are (gender essentialism). This stance is not new but has been recognized in linguistics and discourse studies since the late 1980's (Coates 2012, 90), and has previously been discussed for example by scholars such as Butler in her well-known work *Gender Trouble: Feminism and the Subversion of Identity* (1999) and more recently by Eckert and McConnell-Ginet in their book *Language and Gender* (2013). Thus, while I do in the subsequent sections make references to “men’s” and “women’s” language, because this is the terminology used in the earlier literature that I review, I will later instead refer to the same concepts as masculine and feminine language throughout the thesis. This is to emphasize the view that gender indeed is performative. As Kiesling puts it:

“[S]ocial practices become associated with men, and these social practices then become seen as masculine [...] Under this view, it is possible to have non-masculine men and masculine women, because masculinity is in how people perform social practices for the world” (2007, 656).

Following the same logic, other social practices are associated with women and thus become feminine and will make those individuals who engage in them seem (more) feminine.

Further, the choice avoiding talking about “men’s” and “women’s language” is motivated in other previous research as well. For instance, Thomson and Murachver (2001) talk about gender-preferential language. What they mean by this, is that while anyone of any gender may use certain linguistic features, one gender may use them

more than the other(s). By using such a definition, we can avoid universal claims about the kind of language women, men, or people of another gender use.

The study of language and gender has been approached from mainly three different perspectives highlighting *dominance*, *difference*, and *social construction*, respectively (Coates 2012). The oldest of these schools of thought, the dominance approach, attributes differences in language use to that men and women do not hold the same amount of power and that this is then reflected in how language is used (Coates 2012); this approach is adopted by for instance Lakoff, whose work I discuss below. The difference approach (also known as the two cultures approach), on the other hand, maintains that differences in women's and men's language is explicated by girls and boys being socialized in different cultures with their own conventions for communication (Coates 2012). The currently most popular social constructionist approach views language as part of what constructs reality, adopts a performative view of gender, and that gender thus is constructed through language use (Coates 2012): For example, Kiesling, whose research I discuss below, can be said to adopt this position. As Coates too points out, the emergence of another approach to language and gender has not meant that the preceding ones have lost their significance: indeed, language and gender are both complex phenomena alone and no less so when observed together. Thus, while my own approach in this thesis is best described as following the social constructionist tradition, by no means does it mean that the other two are of no consequence. Neither language nor gender can thoroughly be understood by approaching them from only one perspective.

Whether there is a difference in how men and women use language is not in question: this is a well-established fact with plethora of evidence (see e.g., Tripp and Munson 2021 for perspectives on the cognitive aspect of perceiving gender through language), some of which I discuss in the subsequent sections. What is of greater interest to me, are instances where written language is used to induce the gender of its author. For such assumptions to be possible, the readers of anonymous texts (such as those on online platforms) must rely on their existing knowledge of what is meant by notions such as "men's language" and "women's language," which, to a greater or lesser extent, rely on ideas of what is or is not appropriate for each binary gender. As the users whose assumptions of gender this thesis studies cannot be assumed to be language scholars, it remains somewhat uncertain to what extent the understanding

lay people have of gendered language use matches findings of empirical research. This is an avenue for future research, as the scope of this thesis unfortunately does not allow for an exploration of this.

Gender assumptions of online comments have previously been studied by Koski (2021) in her MA thesis: she found that the 106 respondents to her questionnaire relied on stereotypes of men's and women's language when interpreting the gender of the authors of anonymous social media users. In the first section of this study respondents were not told from which platform the posts they were asked to analyze were, unlike in the following sections. As far as I am aware, no other studies like this have been conducted; thus, while Koski's findings are in accordance with previous literature on stereotypes about gendered language use, the scope of it does not allow us to draw conclusions about whether those who use the platforms frequently (and can thereby be assumed to be familiar with its conventions) would make the same assumptions. Koski has chosen to call the phenomenon 'assumptions,' whereas I use the word '(mis)interpretation.' My choice to deviate from Koski's terminology is to emphasize the agency that social media users have in making what Koski calls assumptions: in my view the word 'assumption' implies a degree of passivity or subconscious action on the part of the person making the assumption or interpretation, whereas the word interpretation draws attention to the underlying thought processes, and therefore the gender ideologies and expectations.

2.1.1 Feminine Language and Its Features

Women's language use has been studied for a long time, not least of all by Lakoff. She argues that girls are raised to speak in a subservient way which then reinforces the submissive role expected of women, and women's language thus becomes a self-fulfilling prophecy: girls are taught to speak as lesser than others, and are bullied if they are not, but similarly if they adopt the kind of language they are taught they should use they in a sense place themselves in the subservient role (Lakoff 1973). The central argument she makes about women's language, then, is that it is submissive. This bleeds into vocabulary (for example, color and choice of adjectives that are tied to the emotional response the speaker has toward something) and syntax (for example, particles (e.g., the choice of expletives), and making use of questions, (e.g., tag-questions and raising intonation at the end of a sentence that is intended as a

declarative)). Lakoff attributes the politeness perceived in women's language to these features; because women's language is not assertive due to less frequent use of vulgar language and a greater use of tag-questions or at least a rising intonation, it does not come across as abrasive and is thus instead polite in tone.

Other scholars also attest to the features identified by Lakoff as being indicative of feminine language. The style identified as polite is attributable to hedging, apologies, and questions (including tag-questions) (Argamon et al. 2003; Herring and Stoerger 2014; Thomson and Murachver 2001). However, while Lakoff's work has been fundamental, scholars today adopt a different vantage point: where Lakoff's approach is best described as taking a dominance perspective, the social constructionist perspective, is more popular among scholars today (Coates 2012, 91). This view coincides with the performative view of gender briefly discussed above.

In CMC settings there are a handful of behaviors that are more commonly associated with woman than with men. For instance, although earlier research suggests that women are more likely to adhere to conventional forms of language (Herring and Stoerger 2014, 576), this behavior is not as much observed online and in text messages: women use more emoticons, xo (to communicate hugs and kisses), and exclamation points, in addition to deviating from standard typography and spelling (Herring and Stoerger 2014). An interesting observation about women's behavior online includes one made by Thomson and Murachver (2001), according to which this demographic is more likely to choose a username or pseudonym that does not give away their gender.

2.1.2 Masculine Language and Its Features

Compared to women's language, men's language has not been studied as broadly. Kiesling (2007) attributes this to the fact that because men and characteristics associated with men, that is, masculinity, have been treated as the unmarked standard (see also Tripp and Munson 2021). In other words, there has been little to no interest in studying that which is perceived as "normal" against which anything deviating is compared. This also explains why women's language has been the object of so much research: as something that is not the same as the norm, it attracts the attention of scholars. Additionally, Kiesling (2007) points out that the masculine styles of language that have previously been studied have been those which have been

associated with men who deviate from the idea of the “average” man, i.e., white, straight, and middle class.

What, then, are the known characteristics of masculine language? Because masculinity is associated with being dominant, essentially anything that can be seen as dominating can be seen as masculine (Kiesling 2007). In a similar vein, Kiesling adds, because men (and perhaps to a lesser degree anyone’s masculinity) index power, any feature of language, when employed by a man or an otherwise masculine person, can be considered masculine: for instance, both interrupting and silence can be masculine – interrupting for taking up space and thus dominating the conversation (see Kiesling 2007 for a problematization of associating interrupting in conversations with men only), and silence for showing strength through taking on a stoic demeanor. While Kiesling’s view certainly has merit, it feels roundabout in its reasoning; masculine language is masculine because it is used by men and men are (usually) seen as masculine, thus inherently making their use of language masculine. This view is also not easily applied to digital spaces, because we usually only have access to the language itself, not the (real, physical embodiment of the) person behind its production. Thus, in the setting studied here, it is necessary to resort to characterizations of gendered language which Kiesling would perhaps find superficial or problematic due to the lack of addressing the role of the gender of the speaker or how they are received by interlocutors. This being the case, I must turn to the scholars who have been more explicit in listing characteristics of masculine language.

We learn gender norms, expectations, and (perceived) differences very young. In the production of written language this is seen in children by the age of nine; at this point in their lives boys have been shown to include more “action verbs, contradictions and judgmental phrases” than girls their age (Thomson and Murachver 2001, 195). As the boys grow up to be teenagers and start using the internet more, they have been found to send sexually explicit messages in online chat rooms (Herring and Stoerger 2014). This, of course, is by no means the defining characteristic of men’s language; ones reported on more are for instance a tendency for information-centered language (Argamon et al. 2003, 323; Thomson and Murachver 2001, 195), and, relatedly, they use more numbers and quantifiers (Argamon et al. 2003, 325; Thomson and Murachver 2001, 194) and determiners (Argamon et al. 2003, 325). In CMC settings men have been observed to be abrasive through aggressive and insulting methods of

communication (Herring and Stoerger 2014, 570; Thomson and Murachver 2001, 195).

Despite it being possible to attribute certain linguistic choices to one gender rather than the other, it is important to remember that, naturally, not every single man will use every individual linguistic feature which indexes masculinity in any given utterance. Instead, they are simply assets available which an individual may or may not choose to employ, although these choices are not always made consciously. It is also worth noting that previous studies have found that the gender of the interlocutor(s) affects how likely one is to use features indexical of one's gender, so that in same-sex settings a higher frequency of gender-preferential language patterns are observed, while they are fewer in mixed-sex groups (Thomson and Murachver 2001; Herring and Stoerger 2014). This then raises the question what this means for Reddit users: Are they operating under the assumption that people of any gender are or may be present in the discussions? Does the specific subreddit on which one interacts impact the assumption? These questions, while interesting, are unfortunately outside the scope of the present study, but could be addressed in future endeavors. In addition to the impacts that the platform has on assumptions about other users' gender there are other complicating factors, such as linguistic patterns which can be attributed to either men (or masculine individuals) or women (or feminine individuals). What about those who do not fall into this binary categorization of gender?

2.1.3 Gender Nonconforming/Nonbinary Language?

Not everyone identifies as either binary gender, but instead as a combination of the two, something in between, or something beyond them. While nonbinary gender identities are becoming more widely recognized in western societies, there is as of yet little research on nonbinary or even simply gender nonconforming language (perhaps the most visible discussion in this area recently has been the use of singular they and, to a lesser extent, neopronouns). Indeed, it appears easier to find research on linguistic features in which no significant difference exists between the traditional two binary genders. Herring and Stoerger for instance mention studies which have found that there is no significant difference in how frequently men and women use "words that express cooperation and passivity" and grammatical words on blogs, and

that there are very few differences in how men and women use “lower-level linguistic features” (a concept which is not further elaborated on) and in their word-choices (2014, 572). Similarly, Thomson and Murachver’s experiment on university students revealed that there is no great difference in the length of emails the students sent each other (although those sent by male students were slightly longer) (2001, 198). Although studies like these do tell us about the linguistic features which cannot or are unlikely to reveal the gender of the author, they do not tell us anything about what actually is characteristic of text produced by non-binary individuals.

There are, however, a few studies on the vocal pitch of non-binary individuals. These studies have found that nonbinary people produce and are perceived by others as producing something different from binary identities, cisgender and transgender alike: Schmid and Bradley (2019) found that nonbinary speakers’ intonation pattern, while similarly to trans and cis men overall had a falling intonation pattern, also shared a feature with trans and cis women in that they produced pitch accents more often than men. However, despite sharing these features with men and women, they are not used in the exact same way by nonbinary individuals; unlike men their speech has occasional rising of intonation and they do not make use of all the pitch accents women were found to use (Schmid and Bradley 2019, 2687). Merritt (2023), while studying the speech production of nonbinary people, found that their fundamental frequency (f_0) value was higher than cisgender men’s and both trans men and women’s, but lower than cisgender women’s, and the same pattern was observable also in the frequency of the other formants (f_1 , f_2 , and f_3) studied. Additionally, Merritt studied two other aspects of speech production and how cisgender listeners perceived the gender of the speakers and concluded that the number of acoustic-phonetic features the listener relied on when rating the femininity/masculinity of the speaker depended on whether the speaker was cis- or transgender; when rating transgender speakers, the listeners drew upon information from more features (2019, 5–6). In other words, identifying and classifying nonbinary speakers seems to be more challenging and requires more information than is the case for cisgender speakers.

Merritt concludes by confirming that the variation in the acoustic-phonetic features across different gender identities are socially grounded (as opposed to being dictated by the physical features of the speaker) (2019). The implications of Merritt’s findings

for the present study, while not completely analogous (due to the object of study being spoken language), include that the language used by nonbinary people differs from the language of both cisgender and transgender individuals with binary identities and that those interpreting gender based on their language may need more information before being able to make a judgement on the gender or masculinity/femininity of the speaker (or, in the present study, writer). Koski touched upon this topic in her thesis, finding that those anonymous messages which were rated as being authored by nonbinary users were ones where there was a mix of features typically associated with men and features usually associated with women (2021, 32–34). For instance, one of the raters in this study found a topic usually assigned to females being discussed using “male language” to be indicative of a nonbinary author (Koski 2021, 33–34). Koski also found that the respondents considered nonbinary identities to be closer to female ones rather than male. In other words, both when acoustic-phonetic and features of written language have been studied, nonbinary language has been found to contain features of both feminine and masculine language. Because comments on social medial platforms are generally not very long and because a wider recognition of nonbinary identities is still in its infancy, I expect to find very few (if any at all) instances of users being mistaken for nonbinary when they identify as a binary gender and perhaps rather examples of nonbinary users being presumed to represent one of the binary genders.

2.2 Computer-Mediated Communication (CMC)

Computer-Mediated Communication (CMC) has, especially in its early days, been rather optimistically thought to provide a space in which all participants regardless of external factors such as age, gender, and race may partake in without fear of their physical characteristics affecting how they are received – CMC was viewed as offering anonymity and thus an even playing field for anyone who wishes to join. This notion was perhaps truer when it was first presented, as people either did not use their own pictures as profile pictures/avatars or even lacked the opportunity to have one (Herring and Stoerger 2014, 573). Profile photos, of course, are but one example of ways in which we may present ourselves online in a time where it is both possible and perhaps even expected to do so as our true selves: for example, on Facebook the norm is to have a profile under one’s real name (Herring and Stoerger 2014, 577).

The physical body and the characteristics communicated through it are central to the assumptions we make of others: we deduce others to have certain attributes or perhaps impose them upon the people around us based on externally visible traits, such as skin color, and these assumptions or impositions then guide us in how we treat the people in question (Shapiro 2015, 12). Considering this, it is easy to see why online spaces and CMC were thought to promote equal treatment of all participants (discussed e.g., by Shapiro 2015; Herring and Stoerger 2014), since there is nothing to give away the physical characteristics – or is there?

Much research into gendered language shows evidence of the contrary, that we in fact do, in our “anonymous” writing online and elsewhere, employ characteristics which are indicative of gender. For instance, Argamon and colleagues showed that if provided with a corpus of both fiction and non-fiction documents with labels indicating author gender (male or female) the researchers were able to correctly identify the gender of the authors of 80% of the unlabeled documents they analyzed (Argamon et al. 2003, 324). These documents, however, were not directly linked to CMC. A slightly earlier study by Thomson and Murachver (2001) studied the accuracy at which the gender of the authors of emails could be predicted. Providing raters with 16 emails, half of which were authored by females and the other half by males, they were asked to rate how likely they thought it was that a specific email was written by a woman or a man. The accuracy of these ratings for all except two of the emails ranged between 62 and 95 % (Thomson and Murachver 2001, 201). The researchers conclude that people can discern email author gender with remarkable accuracy, despite the earlier claims that gender differences would be blurred in CMC settings. In addition to Thomson and Murachver, Herring and Stoerger also attest to the fact that those linguistic features which index gender in face-to-face interaction are not too dissimilar to those found in CMC contexts (2014, 570).

Tripp and Munson (2021), although focusing on spoken language, posit that the reason why gender is perceived also in situations where the physical body is removed has to do with the (in)visibility or hypervisibility of certain identities: when social categories (such as “female” and “male”) are afforded (in)attention or hyperattention they come to be associated with certain features (e.g., how they speak or write) on a societal level (Tripp and Munson 2021, 5). The authors suggest that social power or the lack thereof within individuals with normative and marginalized identities is

heightened through invisibility and hypervisibility. This phenomenon can be seen for instance in the way the norms of language have long been tied to how it has been used by men (in this case a normative identity): “men’s language,” and thereby men are powerful because they have been treated as the norm against which others’ women and the language used by women have been contrasted, also in research. This then makes “men’s language” invisible: because it has been treated as the norm, it does not stand out, but it is also hyper visible, because, due to its status as the norm, it has been everywhere (in literature, media, and so on). As Reddit, which is the source of my data, is a male-dominated platform (discussed below), it ties back to the research question regarding the kind of misinterpretations of gender is most common. Since this is the case one would expect that the normative language on Reddit reflects masculine language rather than feminine language.

It thus being apparent that gender is communicated even purely through text, also in CMC settings, it is motivated to investigate how this is seen on Reddit.

2.3 Reddit as a Platform and Anonymity

Reddit is an asynchronous CMC platform where users may post multimodal content, ranging from text to photos, GIFs, and videos. Users, also known as redditors, may then comment on these posts, or upvote or downvote (like or dislike) both the original posts as well as the comments. Through posting content or comments, depending on the reception, users gain or lose karma, which is shown as a score for each user. Posting happens on *subreddits* which are subcommunities on the platform. These communities are usually centered around certain themes which may range from broad topics such as politics or cute animals to more niche ones, for example subreddits dedicated to specific fictional characters or old coins. Posting, commenting, and up- and downvoting require users to register, and to view explicit content they must confirm that they are at least eighteen years of age (although this only requires one to tick a box). The username and profile picture/avatar of users are publicly available, also to those who are not registered members themselves. With the exception of a few public figures, most usernames do not reveal the offline identity of the user. This makes Reddit a fairly anonymous platform.

The effect of anonymity on the platform has been studied for instance by Gagnon (2013), who discusses the disinhibition observed on the platform. Gagnon reports on

different ways the anonymity of the platform dictates the behavior of its users: some use it to share personal details they have not been comfortable sharing offline, others to share nude photos of themselves (perhaps to boost their self-esteem), another set of people take advantage of the anonymity to spread kindness through helping low-income parents buy Christmas gifts for their children, while some simply utilize the anonymity to lurk because the anonymity lessens the pressure to contribute to the community while still reaping the benefits of others' contributions (Gagnon 2013).

Perhaps because there are ways to remain completely anonymous on Reddit, e.g., through so-called throwaway accounts (i.e., accounts that are only used for a certain purpose and then abandoned), there are people who have misunderstood what it takes to protect one's offline identity: Gagnon mentions two individuals who lost their jobs due to posts they made on Reddit because they posted information about themselves that allowed them to be identified and another who in addition to being identified got banned from the platform for creating subreddits dedicated to posting morally reproachable content of minors (2013). This is to say that while the platform theoretically allows for complete anonymity, it does not mean that users will not share personal details (such as stories of vulnerable moments in their lives or nude pictures) or that the users always remain fully unidentifiable, even when they try to do so – users are able to identify details about others on the platform, such as gender, despite the perhaps misled belief that it is an entirely anonymous platform for those who want it to be one and that there would be no offline consequences. Thus, while online reality is often viewed as separate from the offline one, the two are linked because the online content is mostly created by humans also existing beyond social media platforms (as opposed to AI generated content).

2.3.1 Gender on Reddit

As gender is so closely linked to the topic of this thesis and because it is a factor that affects the kind of language people use, it is not unreasonable to pose a question about whether gender could also be a variable that determines how Reddit is used. For the sake of this argument, let us only consider the two binary genders: if men and women behave differently on the platform and not only in terms of language, is this behavior then something that other users may pick up on and use to make assumptions about someone's gender? The respondents in Koski's survey study

revealed that they perceived Reddit to be “a somewhat male-dominated platform” (2020, 37) and this view is corroborated by user statistics, according to which 74% of Redditors are male (Castillo 2023). While the aforementioned sources considered Reddit as a whole, Finlay (2014) studied only one subreddit, r/atheism and was able to collect data of self-reported gender: this, while only reflective of a small subsection of the platform, is more nuanced and true to the gender identity of the users as evidenced by the user who reported their gender as “other” rather than either of the binary genders. Roughly 64% of the self-reported gender on r/atheism was male: these numbers tell us that the kind of language use one might expect to encounter on the platform is most likely going to be reflective of masculine language (Finlay 2014, 21).

When discussing phenomena beyond linguistic features, Finlay’s (2014) study suggests that men on Reddit are more likely to have a higher karma score and perhaps surprisingly considering earlier research, post shorter messages (cf. Herring 2014), which tells us what kind of content does well on Reddit. Knowing this is relevant for the present study because based on the content that does well one might make assumptions about what redditors generally expect of posts: they would not upvote and thus award a user with karma if they thought their post or comment unsuitable for the subreddit and/or platform. If posts made by men are more popular, one might assume that behavior and language associated with men is what a user expects to see. Will then individuals of other genders who understand the conventions of Reddit try to adopt more features of masculine language to fit in? If this is the case, I expect it to be reflected in the data in what gender users are most commonly assumed to represent.

2.4 Corpus-Assisted Discourse Studies (CADS)

Corpus-assisted discourse studies (CADS) is, as the name suggests, a method for analyzing discourse of essentially any kind, accessed through a corpus. Approaching an issue which is inherently sociolinguistic in nature (the intersection of language and gender) via corpus linguistic methods may initially seem counterintuitive. However, as Partington, Duguid, and Taylor point out, a sociolinguistic component is inevitable also in corpus linguistics because it “studies texts which are the record of ‘real communicative acts in a discourse community’” (2013, 6). In the context of this

thesis the discourse community consists of Redditors and the discourse being the target of analysis is that of gender. Defining the concept of discourse is not simple, as existing literature offers multiple definitions which initially do not seem to have much in common (Partington, Duguid, and Taylor 2013). Here, however, I follow the ideas presented by Partington, Duguid, and Taylor (2013) that discourse is communication within its context of use (that is, it has a function, a purpose), that it is social because it constructs social relations, and that the language is authentic in that it is not contrived.

Although CADS is not the same as corpus linguistics nor the same as for instance discourse analysis (or some other discourse analytic method), but rather combination of the two (Ancarno 2020), much of the terminology and some of the methods familiar from corpus linguistics are relevant within this discipline: I utilize concordance lists and semantic categorizations to investigate misinterpretations of gender and the discourse that follows them. These are both methods of CADS described by Ancarno 2020. The present study is closer to discourse analysis than corpus linguistics and is thus more qualitative in nature, but not devoid of quantitative elements; the latter is seen particularly in the data and its collection, while the former is more prevalent in the analysis. This is mostly dictated by the limited resources regarding the time a single researcher has at their disposal and the fact that the phenomenon studied is not particularly common in the data, both matters explained in more detail below. Because in analyzing the nature of the discourse following the misinterpretations of gender, I delve into the interactions between redditors, the present study cannot be considered corpus-driven; my approach to the data goes beyond that which is revealed by the usual tools used in corpus linguistics (and sometimes CADS as well). This allows for a deeper understanding of the nature of the discourse than would be possible if only corpus tools were utilized.

Gee (2011) describes the functions of discourse through what he calls building tasks of language. According to this theory, there are seven building tasks, three of which are relevant here: significance, identities, and relationships. Selecting the relevant building tasks to analyze instead of engaging with all of them is, while perhaps not ideal, still a valid approach suggested by Gee himself (2011, 122). Naturally, this

means that aspects of the discourse on Reddit remain unexplored here, but those most closely tied to my research questions are addressed.

Significance refers to how language is used to create and assign “relevance or significance [to] things and people” (Gee 2011, 121). This becomes relevant when investigating the nature of the discourse that follows misinterpretations of gender (research question 3); is gender or gender identities treated as something significant or is it viewed as irrelevant? *Identities* are also constructed and enacted through language (Gee 2011, 121. See also Butler 1990; Eckert and McConnell-Ginet 2013) and as such this building task is at the core of the phenomena studied in this thesis. Finally, language can also be used to build, uphold, transform, and destroy *relationships* (Gee 2011, 121). This also pertains to the discussions that follow misinterpretations and the corrections thereof, since the discussions are inherently dialogic, thus consisting of the relationship between at least two redditors. As we shall see, both friendly and unkind exchanges take place.

I investigate the data through an analysis of these three tasks performed by language and follow Gee’s suggestion to identify families of central words and phrases, or that which I call semantic categories, following Ancarno’s (2020) discussion of methodologies used in CADS.

CADS is a suitable way of analyzing the data because it is not limited to a certain scale of linguistic phenomena but can be used to investigate both micro- and macro-level trends, in this case lexical choice (a micro-level linguistic phenomenon) and identity (a macro-level phenomenon, expressed through language) (Herring 2004). Analyzing lexical choice matters because, as pointed out by Lakoff (1973), certain word choices are more indicative of gender than others. Another feature of the same scale is emoticons and emojis, the use of which differs between men and women (Herring and Stoerger 2014). Such details then come together in longer utterances and give others an impression of the speaker’s (or in this case writer’s) identity, including gender (Tripp and Munson 2021).

3 Data and Methods

In the following subsections I discuss the details of the data and how its presentation in this thesis deviates from how it appears on Reddit (3.1), how it was collected (3.1.1), and the ethical considerations regarding the data (3.1.2) as well as the methods of analysis (3.2) and the methodological limitations and suggestions on how they may be remedied in future endeavors (3.2.1).

3.1 Data

The data used in this thesis is a corpus of comments and posts posted to different communities on Reddit over two months in late 2023. To investigate misinterpretations about user gender made by other users, all comment threads qualifying for inclusion in the final data inherently need to consist of at least two comments; one in which a user makes an assumption about a fellow redditor's gender, and another in which they are corrected. Thus, the content which leads to a user making a misinterpretation may be one of three: 1) a post by an original poster (OP), who is also the person whose gender gets misinterpreted, 2) an original post by the same redditor whose gender gets misinterpreted *and* subsequent comments posted by the OP or, 3) one or more comments posted in response to a third party's post.

When giving examples of comment threads to illustrate my observations, I have chosen to include a transcription rather than a screenshot. This has to do with accessibility and ensuring uniformity across the examples: screenshots require blacking out identifying details (username and profile picture or avatar), while simultaneously ensuring that different users and their comments will not be confused with each other. A screenshot is less accessible than a transcription for the visually impaired and color-coding users is not necessarily accessible to people with colorblindness. Additionally, due to the varying sizes of the screenshots, there would be variation in the font size of the comments. Thus, I have chosen transcriptions over screenshots, although the latter have the merit of being true to how the posts and comments appear on Reddit and being more visually pleasing. Below I show an example of how I transcribe a comment thread (1) compared to how it looks on Reddit (Picture 1).

(1) Redditor B: Man has good taste. Not talking about the car [1]

Redditor A, OP: I'm a girl =) [6]

Redditor B: Slow clap 🖐️ [1]

Redditor X: What is that [1]

(B15)



Picture 1: Screenshot of a comment thread corresponding to example 1 and comment thread B15.

As I will explain in greater detail below, every comment thread consists at least of a redditor A and a redditor B. Redditor A is always the person who corrects another user for misgendering them. In example 1 redditor A does not appear first because she is also the original poster (OP), which is indicated in the transcription after the identifier “redditor A,” and has thus already posted something not visible in the screenshot or transcription. Redditor B is always the user whose comment contains a misinterpretation of redditor A’s gender. Any other commenters are indicated simply by letters, starting at X. When relevant, I indicate the number of votes in square brackets after the comment. Similarly, when it is relevant that the original comment

made by redditor B has been edited, this is also indicated in square brackets after the comment. Finally, the source of the comment thread is expressed through the identification number I have assigned each thread containing a correction (with the letter indicating which Reddit dump the comment is from, combined with a number used to distinguish between threads from the same dump). In the example above the identification number is B15. The quality of language in comments posted on various platforms on the internet varies; this is also the case in some of the comments in the data, some containing more ungrammatical structures and misspellings than others. All comments in the examples are unedited and thus any errors in them are ones also present in the original comments.

3.1.1 The Collection and Annotation of the Data

The data originates from a corpus of comments posted on Reddit during the span of two months in late 2023 and which was accessed through Academic Torrents¹. Due to the nature of these Reddit dumps, there is no way of knowing the size of either corpus when it comes to actual word counts. However, as per statistics reported by Castillo (2023), redditors post roughly 2.8 million comments each day. This gives us a rough estimate of 84 million comments in a given month. Because, as is detailed below, the data was also manually analyzed it was necessary to limit the data. As the comments are made available in datasets collected for each month, called *dumps*, the natural choice was to use the two most recent available dumps. After the data collection the comments were ran through a concordancer² that identifies the instances of the search terms appearing in the data. The script requires that the number of comments it checks is defined, because it is not designed to iterate through every comment posted on the entire website over a month. This being the case, the said number was set to 100 million, as this seemed to be the lowest number that still yielded enough relevant hits while simultaneously keeping the output manageable. Increasing the number further would also have not been feasible, as it took roughly twelve hours for the script to check 100 million comments; a greater number would have naturally

¹ <https://academictorrents.com/>. Academic Torrents is a website that utilizes BitTorrent technology to “facilitate storage of all the data used in research, including datasets as well as publications” (Academic Torrents 2022). This source was used because this was the most reasonable and time-effective way to access the data.

² I was kindly given access to the Python script by Dr. Ylva Biri, University of Helsinki: I am very grateful to her for making this thesis possible.

required even more time. The search terms fed to the code include phrases like “I’m ** girl,” “I’m ** woman,” “I’m female,” “I’m ** boy,” “I’m ** man,” “I’m male,” “I’m nonbinary,” and “I’m genderqueer,” with the asterisks (**) standing for any sequence of characters, and moreover alternative spellings of these phrases, such as “im” instead of “I’m.” All 176 search terms used are listed in Appendix 1. In addition to a spreadsheet of the concordance lines with the node, left and right contexts, the output contains metadata of the comments, such as which subreddit they appear on and how many votes the comment has received. Additionally, the concordancer generates a URL to the thread in which the comment containing the search term appears, which then allows access to the full context of the comment and the ability to verify that the comment indeed matches the phenomenon studied here.

As shown in Table 1 below, the search words yielded 26,448 hits in total across both corpora. Due to the large quantity and in interest of time the hits were filtered by blank left and right contexts surrounding the node and a blank right context, as I observed filtering the raw data in this manner to yield results most likely to match the phenomenon under study when doing a preliminary analysis of a much smaller sample. This limited the number of concordance lines to 2,346 in total. These were then manually analyzed for relevance to the research questions. Occasionally the hits were found in comments which have since been deleted or the subreddits in which they were posted have been banned for various reasons. In such cases I consulted the Wayback Machine (<https://archive.org/web/>), which archives snapshots of websites. Not all potentially relevant comments were accessible even via the Wayback Machine and as such they were excluded from the data. Additionally, comments which were only partially in English could not be considered in the final data (e.g., the raw data contained a handful of comments or comment threads which were both in English and in Hindi). Limiting the data and the manual analysis of it cut down the number of relevant hits to a total of 72.

Table 1: Hits matching the search words, number of manually checked hits, and relevant hits in the corpora.

	Hits in total	Manually checked hits	Relevant hits	
Reddit dump A	13.156	1.093	39	
Reddit dump B	13.292	1.253	33	
	26.448	2.346	72	Total

For a comment thread to count as a relevant hit, a certain sequence of comments or a post and subsequent comments had to appear in the data for the phenomenon of misinterpretation of gender to take place: this sequence is illustrated in Figure 1.

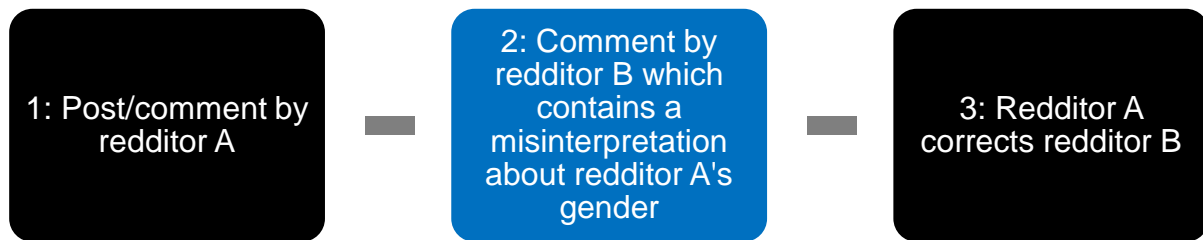


Figure 1: Minimal sequence of comments or post and comments necessary for the phenomenon of incorrect assumptions of gender to be identified in the corpora and qualify for further analysis.

Essentially, first redditor A must either submit a post to a subreddit or comment on an existing post (1). A second redditor B must then post a comment in reply to redditor A in which redditor B makes an incorrect assumption about redditor A's gender (2). Redditor B makes this assumption by utilizing the implicit information about redditor A found in A's preceding post, comment(s), or both. Finally, redditor A must post a reply to redditor B, in which they correct redditor B (3).

In some cases, redditor A had posted more than one comment preceding the assumption, and thus redditor B has potentially had more information to base their assumption about redditor A's gender on. However, because the posts and comments on Reddit are not organized by the time of posting, it is not feasible to ascertain which comments under a certain post by redditor A have been made before and which have been made after redditor B's assumption. Reddit does store information about the time when a comment has been posted, but it needs to be manually checked by hovering over individual comments. The total number of comments varied greatly in the data; while it would have been possible to check the time of posting for most comments made by the redditors A, this is not true for all cases. For practical reasons, then, this meant only considering an original post, a single comment thread, or both containing the sequence of comments described above in the data (that is, the 72 comment threads deemed relevant).

After sifting through the data, the relevant hits were then coded in a manner that allows answering the research questions. Because the first research question regarding the degree to which the language on reddit is stereotypically masculine, feminine, or gender nonconforming requires a qualitative analysis of comments, it

seemed most fruitful to inspect more closely those comments which were most verbose. Naturally, a prerequisite for this is to code all comments for the number of words posted before the assumption about gender was made. If the content posted by redditor A was a post (rather than a comment), the words in the title of the post were also considered in the word count. Additionally, if the post was for instance a meme that in addition to a picture also included words, those words were also counted. On average, redditor A had posted 38 words prior to redditor B assuming their gender, ranging from everywhere between 1 and 233 (although only in seven cases did the number of words exceed one hundred). This allowed sorting of the concordance lines in descending order based on the number of words posted and an analysis of the most verbose content, that is, those comments or post and comments which contained more than 50 words.

To find out what type of misinterpretation of gender is most common the data was coded for the kind of assumptions made; was the redditor A thought to be male, female, or something else? Additionally, information about the specific words used was noted, so that the data could be used to analyze how these assumptions are made. The specific words used were then placed into semantic categories to allow understanding general trends. The categories were based on the specific words used in the data and included third person singular pronouns and determiners, vocatives, and honorifics, among others (detailed in section 4.2).

Finally, the data was also coded for the reception of the corrections to gain an understanding of the type of discourse about gender and expressing one's gender identity found on Reddit. Categories used here were *unreceptive*, *receptive*, and *none*. The *unreceptive* category covers all such instances where the correction was not received well. For instance, this label was used for cases where the correction was met with disbelief or dismissal (e.g., "I don't think you are [a boy]" [A3] or "sure sure... Lol" [B23]), a reiteration of the misinterpretation (e.g., repeating the masculine third person singular pronoun "he" despite having been corrected on its use), or a generally abrasive comment somehow connected to gender. To be considered *receptive*, the discussion following the correction needed to be amicable in nature when it came to the correction. This could mean acknowledging one's mistake (e.g., apologizing or saying things like "if that's the case, ignore my comment about growing a beard 🙄" [A33]), editing the comment in which the

misinterpretation was made, or simply carrying on with the original topic without making a big deal out of the correction while still respecting it going forth. However, just because a correction has been received well does not automatically mean that the tone of the discussion is otherwise civil or friendly. For instance, one commenter said, “oh sorry miss worldwide now can you cope with the fact that not everyone is interested on [sic] what triggers you or about you???” (B17). The correction itself was received well and followed by an apology and correction, which is why this particular example was coded as receptive. Sometimes there was no response at all to the correction; these were of course categorized as *none* since no discussion followed.

3.1.2 Ethical Considerations

Because I did not collect any personal data for this research project, the ethical considerations of the data collection are limited but naturally not nonexistent. According to the European Union’s General Data Protection Regulation (GDPR) personal data is anything that can be used to identify a natural person. The only information explicitly discussed that could potentially be linked to a natural person is the profile picture or avatar. These, together with the comments, and posts used in this these are, however, publicly available, and this fact is addressed in Reddit’s privacy policy (Reddit, Inc 2024). Because they could prove relevant to how a user’s gender is perceived by other redditors they need to be considered when analyzing the research data. To protect the identities of the Reddit users discussed in this thesis at no point do I include such information about the profile pictures or avatars that would allow finding the individual in question. Although profile pictures and avatars are publicly available, meaning that the GDPR does not apply to the redditors the same way it applies to for instance interview participants, the individuals associated with them are at no point discussed in a manner that would subject them to attention they would not otherwise receive.

The Finnish National Board on Research Integrity (Tutkimustieteen neuvottelukunta, TENK) states that research integrity is based on “reliability, honesty, respect, and accountability” (Finnish National Board on Research Integrity 2023, 11). These principles are being followed in this thesis as well through careful design and execution of the research project (reliability), and in taking care to be as transparent and neutral when explaining the design, analysis, and results as possible (honesty).

Further, I aim to be mindful of the way I discuss the human beings behind the social media content that I analyze (respect). I have, throughout this thesis, to the best of my ability tried to acknowledge where my methods or analyses may fall short. Additionally, the data used, and details of personally identifiable information is treated according to the GDPR, as described above (accountability).

3.2 Methods

The nature of the research questions collectively requires a mixed methods approach. I utilize quantitative methods in such phenomena which can be numerically represented. These include the distribution of gendered features (research question 1), the percentage of the assumed gender of redditors (research question 2), the frequency of semantic categories of the words and phrases in which assumptions of gender are contained (research question 2), and the number of different types of discourse that follow misinterpretations and their corrections (research question 3). The purpose of the quantitative representations is to give an overview of what is observed in the data. The qualitative analysis, on the other hand, serves to gain an understanding of that which cannot be approached through numbers, such as understanding the nature of discourse and its purpose, and to provide examples of the numerical data. Additionally, all numbers presented are originally derived from a qualitative analysis. Thus, the mixed methods are inseparable, and the quantitative analysis complements the qualitative analysis, and vice versa, providing an approach which builds on the strengths of each while mitigating the weaknesses. Next, I will detail the methods used to answer each research question.

To answer the first research question, how redditors' perception of gender relates to stereotypes of gendered language as described above (sections 2–2.3), I first compiled two lists of gendered linguistic features based on existing literature, one for masculine features and another for feminine features. The resulting lists of masculine and feminine features are found in Appendix 2. Because research into gender-nonconforming language is so rare, no corresponding list of such features could be compiled. Research existing up to date focuses on phonetic features (as discussed in section 2.3), which naturally cannot be identified in written language. Interestingly and on a related note, scholars have contrasting views on whether non-standard orthography and typography is more common among males or females (c.f., Herring

and Stoerger 2014 and Thomson and Murachver 2001). This perhaps invites a reading that this would be indicative of nonbinary language, extending this to mean that non-standard forms would be a gender nonconforming feature. However, this would not be a sound claim, since there is nothing inherently gender nonconforming about a feature that is used by all genders studied for the phenomenon (men and women). Thus, it was not possible to identify any specific features that would indicate gender queer identities, especially because the data additionally ended up not containing a single instance where a redditor would have been nonbinary or otherwise gender queer.

The next step in answering the first research question was to identify such original posts, comment threads, or both (henceforth collectively referred to as *threads*) where redditor A had posted no less than 50 words preceding an assumption about their gender. The purpose of this word count was to ensure that enough linguistic information was available for a qualitative analysis of the gendered features. 16 out of the 72 threads qualified for qualitative analysis. Three of these were authored by female-identifying Reddit-users, while the remaining 13 were written by male-identifying redditors. This can be considered a representative sample in that it is roughly proportional to the assumed genders, something I return to in greater detail in subsection 4.2. An Excel spreadsheet was created for marking which of the resulting 16 threads contained which features, thus allowing a numerical representation of the distribution of the features in the data.

Answering the second research question began by annotating the data for the assumed gender and self-reported gender of the redditors whose gender got misinterpreted. Since the data and therefore also the analysis both rely on self-reported gender and because there is no way of knowing whether the reported gender matches the real lived experience of the individuals in question, it is assumed that the reported gender matches the offline reality. It seems unlikely that a person would go out of their way to lie about their identity, although there is evidence that people sometimes will adopt the role of someone of a different gender (Herring and Stoerger 2014; but see also Shapiro 2015 for discussion on identity tourism). To address the second part of the second research question, that is, how the misinterpretations are made I organize the words used in the assumptions into semantic categories, as mentioned in the literature review of CADS (section 2.4). The categories used here

are based on the words observed in the data, and they offer an overview of the words – listing each individual word used would reveal less about how the assumptions were made.

Answering the final research question makes use of the Python script's output, which includes the number of votes each comment containing a search term received. Since the number may change indefinitely and the number provided by the concordancer is based on the information stored in the dumps, I verified the numbers manually in March 2024. The number of votes is useful in determining the reception of corrections. Knowing how the members of different communities on Reddit feel about the corrections sheds light on how they feel about correcting misgendering comments. Additionally, because the votes alone are insufficient to reveal the character of the discussions that follow the corrections. More depth is provided through categorizing the comments following the corrections in terms of reception. The categories I use are *receptive*, *unreceptive*, and *none*. Further details of these categories were discussed above, in subsection 3.1.1.

3.2.1 Methodological Limitations and Suggestions for Further Research

Like all research, this thesis comes with its limitations. When it comes to the methods used here, my greatest grievance is that it was not feasible to utilize all search terms possible, as this would have yielded more data than one person can analyze. To be as inclusive as possible, I chose to include such non-traditional gender identities which, sometimes being characterized as umbrella terms (e.g., “nonbinary” and “genderqueer”), cover as large a variety of the multiplicity of gender as possible.

Another limitation concerns the linguistic features considered here. The field of language and gender is vast. As such it is not possible to consider all findings regarding stereotypically masculine or feminine language. There are undoubtedly more linguistic features which could have been considered in this study in addition to those discussed in the literature review. Those features which are considered here are the ones which seem most relevant to the context of CMC and Reddit specifically.

It is also not feasible to account for variation in perceptions of stereotypes of gendered language between native and L2 speakers of English. That is, it is for instance uncertain whether the linguistic features associated with a certain gender

are reflective of English only (and if yes, which variety) or if there are influences from cultures where English is a foreign language, and thus instead show influences from the conventions of other languages and/or cultures. Additionally, there is no way of ascertaining the skill-level of an L2 speaker even if one could be identified; it is possible, for example, that they use a gendered word such as 'he' without intending to gender the person being spoken about because they have not learned that 'they' can also be singular. This would then not technically qualify as a misinterpretation of gender since no interpretation was intended in the first place.

Finally, the methods adopted here are, as is typical for qualitative research, very time-consuming and therefore the amount of data, too, is limited. Future research would do well in addressing the discussed issues, for instance by investigating the language used by gender minorities, addressing a larger number of linguistic features or a different set of features, approaching gendered language with the speaker's L1 as a variable, or adopting a more purely corpus linguistic approach to the data.

4 Results and Discussion

I will next go over the findings and discuss their significance in relation to the research questions, previous literature, and beyond research. This section is organized by research questions so that the results related to each research question have their own subsections. I conclude this section with a summary of the general findings and the answers to the research questions.

4.1 Gendered Language on Reddit

I begin by presenting the results for what kind of gendered language can be found on Reddit. The results reflect such original posts, comments, or a combination of the two, where the total word-count exceeds fifty. This lower limit is set to ensure that there is enough linguistic information to go off in the analysis, because otherwise the material used for qualitative analysis would exceed that which can realistically be analyzed by one researcher for a study of this scale. Altogether there were 16 such threads, which represent roughly a fifth of all posts and comment threads in the data. Three of the redditors who authored the texts analyzed here were (incorrectly) assumed to be women, while the remaining thirteen were thought to be authored by men. These numbers are essentially proportional to the assumptions generally made in the data, as we shall see in section 4.2 below; in this sense this smaller sample can be thought to be representative of the full data, although a future research project of a similar nature would do well in addressing the full data or perhaps a larger sample.

I begin by presenting how the masculine and feminine features were distributed in the 16 threads analyzed. This is followed by a discussion of threads which represent the average in terms of the number of gendered features, after which I explore the most frequent masculine and feminine features. Since there were neither any assumptions that a redditor would be nonbinary nor any cases where a redditor would declare themselves to identify as such, nonbinary identities and the language used by genderqueer individuals can unfortunately not be discussed in this thesis.

Each post and comment posted by a redditor whose gender was later assumed incorrectly and whose total word count was 50 or greater (including emojis) qualified for qualitative analysis and coding for masculine and feminine linguistic features. The findings are summarized in Table 2 below. The specific features I analyzed are

detailed in Appendix 2, but altogether there were 18 masculine features and 22 feminine features. Additionally, it should be borne in mind that one of these features, non-standard forms (regarding spelling) have been found to be indicative both of feminine and masculine language by different scholars, thus perhaps rendering the entire purpose of using the category somewhat questionable. I chose to include it regardless because its inclusion does not severely skew the results, as it was observed in only four threads, thus essentially resulting in four additional masculine and feminine features across all threads. Interestingly, the non-standard forms observed in the data were equally often found in comments and posts authored by men as they were in ones written by women; thus, the data here is neither able to corroborate nor disprove either of the previous studies' findings about which gender non-standard forms are more indicative of.

Table 2: Distribution of gendered features across threads (i.e., original posts, comments, or both) in which the total word count was no smaller than 50 and where the author gender was assumed incorrectly.

Thread ID	Author true gender	Masculine features	Feminine features	Gendered features in total
A3	F	2	11	13
A5	F	6	6	12
A14	M	5	5	10
A22	M	2	5	7
A23	M	7	1	8
A27	M	4	2	6
A28	M	4	8	12
A30	M	6	5	11
A33	M	1	3	4
B3	F	7	6	13
B7	M	2	5	7
B13	M	2	2	4
B15	M	2	1	3
B22	M	5	0	5
B26	M	4	2	6
B31	M	1	2	3
		60	64	124
				Total

As the table above shows, each thread with more than 50 words in total had at the very least three gendered features but could be up to 13 (observed in two threads).

Every thread contained at the very least one masculine feature, but no more than 7. Feminine features on the other hand ranged from zero to 11. It is interesting to note that while there were overall fewer masculine features both in terms of what was looked for in the post, how many were observed in individual threads, and in total across all threads, there were no such threads where none would have been present. This contrasts with the feminine features, which while more numerous, were not necessarily found in every post.

Feminine features not being present in every thread, I believe, can be explained by three factors. First, because the number of masculine and feminine features looked for in each thread were not the same (18 masculine features and 22 feminine features). This would then make it more likely that a feminine feature would be identified in any given text. The imbalance in the numbers is perhaps reflective of the fact that masculine (or “men’s”) language is understudied compared to feminine (or “women’s”) language. It follows then that fewer masculine features have been identified and that fewer of them could be considered in this study. Secondly, a feminist reading of these results would suggest that it is possible that masculine features are found in all threads because what is considered masculine is treated as the “normal” and, in that it is not deviant, “good.” Authors of any gender may then subconsciously pick up on such features and use them because they have adopted the notion that it is what is expected of them or that it is how one is “supposed” to write. Finally, following the same vein of thought, it is also possible that because the masculine has long been viewed as synonymous with standard and is thus unmarked that despite my best efforts some masculine features have gone undetected and are therefore seemingly fewer. The normative perception of the male identity was briefly discussed in section 2.2.

On average, the difference in the number of masculine and feminine features both in a single thread was 2.5, ranging from everywhere between 0 and 9. Threads where the difference in number between masculine and feminine features is either 2 or 3 can thus be considered prototypical; out of the 16 posts analyzed qualitatively for the gendered features 5 can be said to be prototypical in this sense. Something all these threads have in common is that a masculine feature observed is that the topic is an issue of some sort and a feminine feature found in all of them is the frequent use of

personal pronouns. For instance, one post discusses language exchanging over video chats, something the author struggles with due to shyness:

- (2) [...] I have this one Japanese girl I try and language exchange with every weekend, but I only voice chat while we play a video game together and still am too nervous to video chat. (A33)

The excerpt in Example 2 does not fully capture the extent to which the author uses pronouns, but it does showcase the topics; emotions, personal matters, and issues, out of which the first two are considered feminine, while the last one is more masculine. The emotion being addressed is shyness and the matter is personal in that the author makes himself vulnerable through sharing his insecurities.

Simultaneously, though, he approaches the matter as an issue that needs to be solved. This redditor's language contains both feminine and masculine features and is prototypical in that the difference in number between them is two (one masculine and three feminine features).

Another post where the number of features is similarly balanced criticizes the attitude and social aptness of people who express a distaste for small talk. In this post the masculine features include, in addition to the topic being an issue, insults, judgmental phrases, and opinions, while the feminine features interestingly include justifications of the expressed opinion together with hedging claims, and, of course, personal pronouns:

- (3) It's okay if your distaste is situational, eg you're taking public transport or in a doctor's waiting room. But if you hate small talk on principle, you're probably socially inept. [...] There seems to be a subset of the population who believes that you can just dive into a "deep" topic with someone with no warm-up. Resulting in dissatisfaction on both sides. (B26)

The issue being discussed in Example 3 is people failing to realize that they have poor social skills if they hate small talk in all situations. This is, naturally, an opinion and, I would argue, a judgmental one at that; variation in perceived social skills can be cultural, for example (Finns are notoriously considered to be "bad" at small talk), or it could be related for instance to neurodiversity. As such, one could make the argument that the stance adopted by the author of this post is judgmental in that it assigns an inherent value to small talk, places a demand on others to do the same, and renders other views invalid or immature in the process. Although the overall tone

of the post does not seem to leave much room for differing opinions, the author does attempt to justify their views and makes use of hedges, as seen in “you’re *probably* socially inept” (emphasis added). This Reddit user, too, displays a range of gendered features in their post in a prototypical way (four masculine features and two feminine ones).

What then are the most common masculine features? No other masculine feature was observed as much as the topic being an issue, seen in 12 out of the 16 qualitatively analyzed posts. It can be seen in the previously discussed Examples 2 and 3. Other issues brought up included for instance dealing with feelings of loneliness (A5, A22, and B7), overcoming drug addiction (A30), and challenging social situations (B13). The second most frequent feature of masculine language was expressions of opinion, although it was present only in half as many threads as issues (i.e., 6). Redditors offered their opinions on the use of synthetic opioids in replacement therapy (A30), watches (B15), and the differences between two installments of a videogame series (B22), among other things. Three features tied for the place of third most common, each observed 5 times; talking about objects (as opposed to people), judgmental phrases, and strong assertions. Example 4 exhibits several of the most frequent masculine features:

- (4) These Koroks, Shrines, main dungeons, the writing style, side content, combat, puzzle-solving elements, physics elements, music, sound effect, and a whole lot more would like to have a word with you. Most things are tweaked, some for the better and some for the worse. Nothing is completely different.

Please stop denying the obvious. You’re not a child. (B22)

This redditor begins their comment by listing objects and goes on to express their rather strong conviction that the newer instalment of the game does not compare with the earlier release, as implied in the original post. This assertion is combined with a judgmental stance towards the OP’s maturity and ability to see that which is self-evident in the opinion of the commenter. This comment also contains one of the less common masculine features, an insult. All these features have been found to be symbolic of masculinity and are potentially used to communicate it, be it consciously or not.

The most common feminine features were more even in terms of frequency in the data than were the masculine ones. Two features were observed 9 times each: a frequent use of personal or reflexive pronouns and bringing up personal matters. The third most common feminine feature was discussing emotions, which was present in 7 threads. Personal matters discussed by the redditors in the data ranged from difficulties with family (B7) to a past addiction to heroine (A30) among others. Example 5 below contains the three most frequent feminine features in addition to some less frequently observed ones:

(5) aw sorry 🥰

it's totally normal to be anxious about it, but actually doing it doesn't have to be scary. If it's with someone you trust, you both can talk about what you're afraid of (I have with a partner in the past!) also it's totally okay to just not have sex if you don't want to!
(A28)

This author refers to another person in the comments with the pronoun 'you' several times. While the number of times the pronoun is used in this comment is perhaps not that high, it is still salient given how short the comment in question is. The matter being discussed is rather personal and although the topic is originally not this specific redditor's experience but rather the OP's, they still choose to bring up their own past experience as well and they additionally mention feelings such as anxiety and fear or nervousness. Other feminine features seen here include discussing relationships and being supportive of someone else. The use of emojis and exclamation marks are also considered to be typical of feminine language, although whether the inclusion of the two in the comment in Example 5 truly communicates femininity is questionable because each is only used once. Perhaps in this case they primarily add to the femininity expressed through the other feminine features rather than constitute their independent features.

Redditors' language use is, like everyone else's, not devoid of gendered features; each of the 16 posts that were analyzed qualitatively contained at the very least three such features and on average almost 8. These features were balanced so that the difference in the number of masculine and feminine features was 2.5. Overall, 4 more masculine features were observed despite fewer masculine features being looked for. Since the sample size was so small making claims about the significance of this difference would be unwise; future research with a larger sample size could verify and address

the difference observed here. Masculine features used frequently by redditors include discussing issues, expressing opinions, talking about objects, judgmental phrases, and strong assertions. Commonly used feminine features were frequent use of personal or reflexive pronouns, and talking either about personal matters, emotions, or both. All these features, whether falling under the masculine or feminine category seem to echo the purpose of the platform; to discuss matters important to the redditor and for others to partake by sharing their views on the topic.

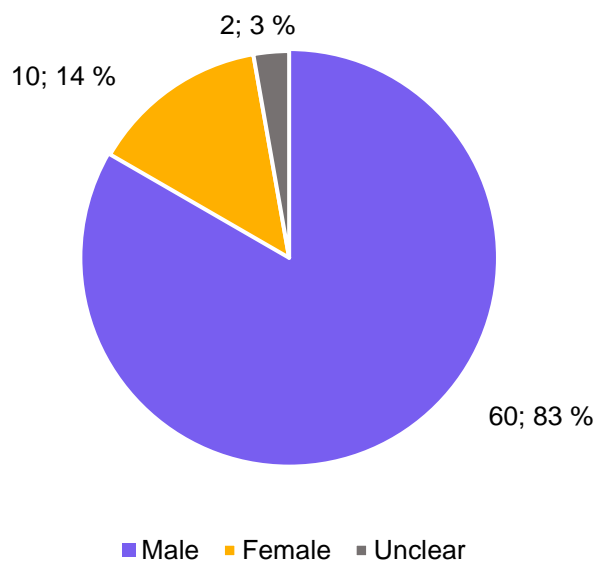


Figure 2: The assumed gender of redditors in the data.

4.2 Types of Misinterpretation of Gender

As hypothesized, the overwhelmingly most common assumption is that a given redditor is male, representing 83% of the cases (Figure 2). This finding is in agreement with both statistics of the Reddit-user demographics and the general impression people have of redditors (Castillo 2023; Koski 2021). There are in fact several comments in the data discussing this exact phenomenon as well, for instance:

- (6) Redditor X: I feel like we (men) behave like women don't exist in Internet. To me, every account that I see on comments is a guy
- Redditor Y: I am a girl and I also think every acc on the Internet are dudes (C1)

The same sentiment could also be seen in other comments, as in a jocular “[g]irls don't exist on Reddit” (C2). It is no wonder, then, that such a significant number of incorrect assumptions about user gender would be ones where users are presumed to

be male. There were, of course, also 10 cases, or 14% of all incorrect assumptions, where the redditor was thought to be female and additionally two ambiguous cases.

But when clear assumptions about gender are made, how does it happen? What is it that is being said that triggers the sequence of comments presented earlier in Figure 1? Specifically, what exactly do redditors B say when they make their assumptions? The most common way an assumption was made was using a gendered noun as a vocative. These included words such as ‘bro,’ ‘boy,’ and ‘man.’ It is worth bearing in mind that the English language does not have a grammatical case called the vocative, but it is rather a function served (in the cases discussed here) by noun phrases (Huddleston and Pullum 2002, 522). All except one vocative in the data were masculine (the exception being ‘girl’). Three examples of how vocatives were used in the data can be seen in Examples 7 i–iii below, where I have italicized the words serving as vocatives.

- (7 i) Yeah *bro* show me your account [...] idk how much u paid but u
arent the average player *bro* (A8)
- (7 ii) Jeez *man* I’m just jk 😂😂😂 (A28)
- (7 iii) we don’t know u *girl* (B5)

These were all comments by whom I call redditors B, since they are the ones essentially making an assumption about their respective redditor A’s gender when they use gendered vocatives, which is in turn what leads to redditor A replying with something that corrects them. Whether these could truly be considered as cases of misgendering or misinterpretations of gender is debatable because people use such vocatives as for instance ‘dude’ (also observed in the data) of all people regardless of gender, but since they resulted in a correction regardless of how they were intended they were included in this study – at least redditors A took them as misgendering vocatives and they were significant enough for them to reply with correcting comments.

The second most common context for assumptions about gender was the use of a third person singular pronoun or determiner (i.e., ‘she’ or ‘his’). This was observed in 21% of the cases, or 15 individual comment threads, wherein the pronoun or determiner was feminine in 3% of all cases or two instances, which is proportionally almost identical to the distribution of assumptions in general; a redditor was

presumed to be female in 14% of the cases and feminine pronouns were used in 13% of those cases where pronouns or determiners were used. Corresponding numbers for males and masculine pronoun or determiner usage was 83% and 87%, respectively, with the greater difference between these numbers being explained by the absence of a third category such as the use of singular they or neopronouns, while there simultaneously were two cases where the exact gender in the assumption could not be identified (thus resulting in the “unclear” category). The use of masculine and feminine third person singular pronouns or determiners was most often used in reference to the original poster, perhaps with an assumption that they would not see the comment in question, since using the pronoun or a determiner gives the impression that the person being talked about is not present. Yet in the data they do make an appearance to correct the misunderstanding:

(8 i) Redditor A, OP, in original post title: Im not gona lie all the genders looks like that one pokemon

Redditor B: He is not wrong

Redditor A, OP: Im a girl

Redditor B: Sorry I didn't know [...] I hope you don't mind me misgendering you (B29)

(8 ii) Redditor B: Does he know?

Redditor A, OP: I'm a girl

Redditor B: He doesn't know

Redditor A, OP: He?

Redditor B: Another one claimed by the atrocities of '99. A sad day. (B14)

In Example 8 i, the sudden appearance of redditor A in the comment thread leads to what at least seems to be a rather sincere apology. This exchange seems fitting for the subreddit the post and comments appear on, since it is one dedicated to discussing things concerning gender and sexual minorities, where one might expect followers of the community to be more attuned to being respectful of people's gender identities. The latter example (8 ii), on the other hand, showcases how redditor B chooses to use the unexpected presence of redditor A to a comedic effect rather than taking the opportunity to address the misinterpretation, perhaps to diffuse any tension the

misgendering may have caused (although not particularly successfully, since redditor A did not seem to get in on the joke).

The vocative and third person singular pronouns or determiners each represent over 20% of the kinds of words or phrases that contained the assumption. It was also common to use the words ‘guy,’ ‘man,’ and ‘girl’ without them functioning as a vocative. Although these words may not be intended as gendered (c.f. using ‘you guys’ to refer to a group of women), they are treated as such here because redditors A have reacted to them as gendered words – they have felt misgendered by them. There were also rather unique ways in which assumptions about gender were expressed: the semantic categories of the words or phrases which contain the assumptions are summarized in Table 3.

Table 3: Semantic categories of words or phrases in which assumptions of gender were contained in the data.

	Masc.	Fem.	Occurrences	%	
Vocative	15	1	16	22.2	
3 rd pers.sg.	13	2	15	20.8	
“guy”	7	0	7	9.7	
“man”	6	0	6	8.3	
“girl”	0	6	6	8.3	
Mention of genitalia	4	0	4	5.6	
Honorific	3	0	3	4.2	
Sexuality + M	3	0	3	4.2	
Words associated with subpar maleness	3	0	3	4.2	
M	2	0	2	2.8	
N/A	?	0	2	2.8	
(Pseudo)kinship	2	0	2	2.8	
“bro”	1	0	1	1.4	
F	0	1	1	1.4	
Cartoon character	1	0	1	1.4	
	60	10	72	100.0	Total

For instance, there were three comments that contained wording that can, in one way or another, be associated with what I call subpar maleness, in the absence of more elegant phrasing: this is meant to reflect the gender attitudes and expectations conveyed in the comment threads and not those of the researcher. One word used in this manner is ‘incel,’ which connects to the notion of being below average, often

through the person labeling oneself as such (B23). Incels are typically thought to be men who are celibate but not by their own choice, as per the Merriam-Webster Dictionary (accessed March 26, 2024). Thus, they fail to perform the expected masculine role of attracting women and can in this sense be viewed as “subpar.” Similarly, another such word in the data was ‘cuck’ (in comment thread A1), which is used to describe “a weak or submissive man” (Merriam-Webster Dictionary, accessed March 26, 2024). Again, this is used to question the masculinity of the person, and thereby feeding off the stereotype of an “alpha male.” The third and last reference to a “less-than” man, was through an implication that a redditor (who was presumed to be male) had a phallus below average in size (B10). This was separated from the other references to genitalia, which constitutes its own category (as seen in Table 3), because the others were not evaluative in nature like the one discussed here. Again, this comment was intended to bring to question the masculinity of the redditor.

Another category worth addressing here for the sake of clarity is that of (pseudo)kinship. The words in this category are kinship terms (‘son’ [A11] and ‘grandpa’ [A17]), which while normally used to describe familial relations do not serve this function on the internet between two people who can be assumed to be complete strangers to each other, hence the prefix ‘pseudo-.’ Analyzing all the different ways gender is evoked in more detail would certainly be interesting but is unfortunately beyond the scope of this thesis and must thus be addressed in future research. Below I do, however, still delve further into the two cases that could not be categorized in any specific way, as they are interesting examples of how assumptions need not necessarily contain a word that is gendered.

When it comes to the cases where the exact assumed gender could not be determined (“N/A” in the preceding table), the issue was that there was no explicit assumption, but instead a strong sense of having been misgendered could be detected:

(9) Redditor B: I didn’t know you were a girl

Redditor A, OP: Well if you’re basing it off my chats I actually text
as a guy too but yeah I’m a girl (B21)

In example 9 it is not clear what gender redditor B thought redditor A to be, but it is apparent that they did not think she was female (and thus this comment thread was also included in the data). It is also unclear what exactly redditor B based their

assumption on, since redditor A's post to the subreddit is a screenshot of a chat where she and her interlocutor are roleplaying as characters from the horror game series *Five Nights at Freddy's* and a meme related to the chat: this is probably what redditor A refers to when she says "if you're basing it [the assumption about gender] off my chats," and she encourages other redditors to give her a character to chat to in the comments in the title of her post (hence the plural of 'chat' in her comment). This still gives redditor B very little information because the OP's reply to everyone who comments with the name of a character is the same. With so little to base their assumption on, it is curious that redditor B would have much any thoughts about her gender: perhaps the assumption is simply informed by the fact that a (horror) game is the topic, something which is stereotypically associated with men rather than women.

Similarly, no obvious assumption about gender was made in the other comment thread with the unclear case either (Example 10). It did, however, differ from the example discussed above in that here redditor A, in providing a description of her appearance and demeanor, perhaps managed to attach traditionally masculine qualities to herself (being tall and alpha maleness):

(10) Redditor A: She would date me. (I'm 6'7 and a charming yet stern alpha)

Redditor B: you'd have more luck with guys

Redditor A: Well, I'm a girl... so (B28)

Curiously, then, it seems that this unclear case was in fact not a sequence of comment – assumption – correction, but almost rather comment – comment – assumption that the previous comment contains an assumption. It is also possible that redditor A posted this comment knowing it would lead to a misinterpretation of this kind and was therefore expecting an assumption and thus thought there to be one. The interpretation that there is one is, of course, entirely plausible otherwise as well; redditor B's comment can be read as heteronormative, but I would argue that this reading, too, comes with the prerequisite that redditor A knew what they commented would or at least that it could lead to the assumption that she is a man. Because it is not possible to determine what redditor B's exact assumption was, this case had to be labeled as unclear, although it seems very likely that they assumed redditor A is a man. This comment thread was included in the data despite its somewhat ambiguous nature because it is possible to think of it as an example of the sequence comment –

assumption – correction and because it is not possible to know for certain whether redditor B actually made an assumption about redditor A’s gender or not.

In summary, then, most assumptions about Reddit users’ gender follow the expected trend of female redditors being presumed to be male (83% of all assumptions). How assumptions were made varied, although the use of third person singular pronouns and determiners and vocatives together made up 42.8% of the words containing the assumption. Additionally, it was common to use the words ‘guy,’ ‘man,’ and ‘girl’ in non-vocative ways (as in for example “this guy” rather than something like “my man,” which serves a vocative function unlike the former). A particularly interesting group of words and phrases here is the one where an intention to bring to question a redditors masculinity is expressed, that is, the words associated with so-called subpar maleness. It seems that the notion that only men exist on Reddit is so strong that even where there is (perceived) femininity the possibility that the redditor could be a woman does not seem to even cross the mind of the other user. Instead, they resort to making fun of a presumed man for not living up to societal expectations of masculinity, for instance in his ability to be assertive. Based on the wording in the assumptions, then, it would seem that redditors do rely on rather stereotypical understandings of gender, which is then seen in the gender ideologies traceable in the attitudes implicitly expressed in the comment threads. Since interactions on online platforms are also dialogic, there is, of course, more to the broader context of assumptions about gender – this is what the following section aims to address.

4.3 Discourse Following Misinterpretations and Corrections

In this subsection of the results, I discuss the nature of the discourse that follows misinterpretations and the corrections that follow them. The discourse could very roughly be categorized either as receptive, unreceptive, or as lacking entirely. Receptive responses alongside no responses to corrections were equally common, as seen in Figure 3. Each of these represents roughly 42% of all responses observed in the data. The unreceptive responses were clearly the rarest, as the data only contained twelve such cases, or around 16% of all response types. This would generally indicate that Reddit is rather accepting and receptive to being corrected for making mistakes in the assumptions users make about someone else’s gender. However, this is but a superficial perspective on what is going on, because for

example as briefly mentioned above, simply because an instance can be coded as receptive it does not inherently follow that the overall tone of the conversation is amicable and, inversely, an unreceptive response is not in all cases hostile. Thus, it becomes necessary and fruitful to inspect the types of responses more thoroughly. I will turn to presenting the findings within the receptive and unreceptive categories, respectively, after first discussing the significance of no responses.

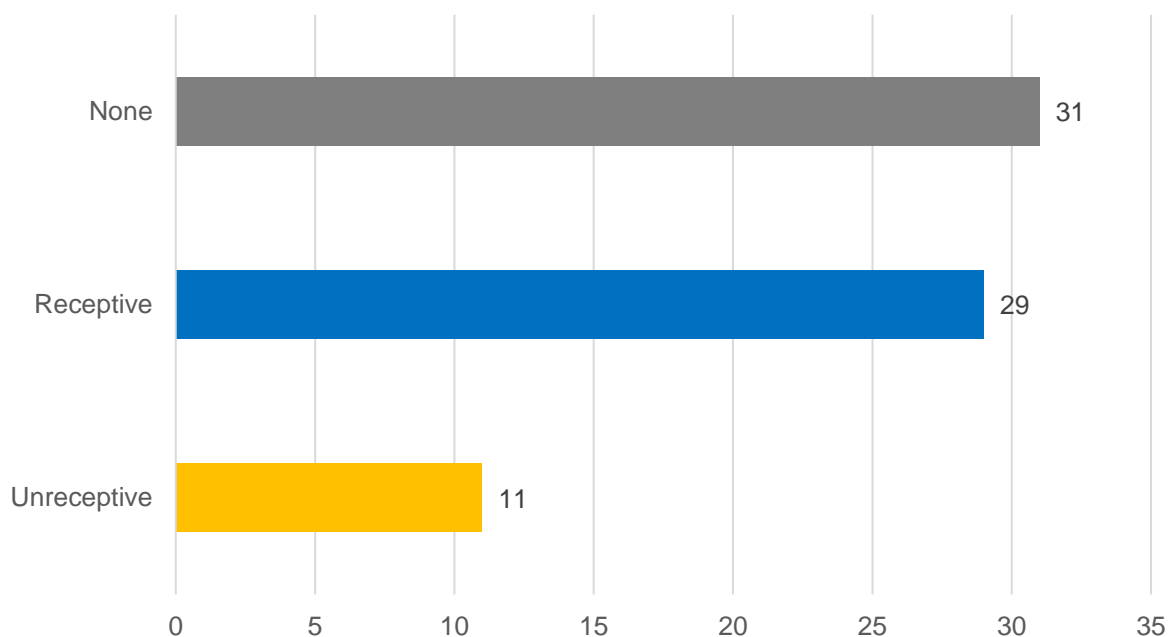


Figure 4: Absolute number of each type of discourse following corrections.

4.3.1 Comments Receiving No Responses

While it may seem like the absence of any discourse after corrections is rather uninteresting, the silence from other redditors also tells us about the atmosphere of the communities the comments appear in. The lack of a response from individual redditors, especially the one who made the incorrect assumption of someone's gender, could indicate that gender is simply not viewed as something relevant or important in the first place. However, this theory is disproven if we also consider votes.

All comments and posts on Reddit start out with one vote because it is assumed that every redditor will upvote their own content. Thus, those comment threads which truly received no response from the community are the ones with no subsequent comments and one vote. This means that to identify correcting comments that

received no response, it was necessary to both check the number of votes identified by the concordancer and double check the number of votes manually, which I did in March 2024. Such comment threads which had one vote both according to the concordancer and the manual check were assumed to represent no response threads, since several months had elapsed since the posting of the content and the manual check, and no changes in the reception of these threads could be detected. Of the 24 threads which initially received one vote and no comments, eight had not accumulated either of course of a few months. These eight comment threads represent the so-called true no response correcting comments. This means that following 89% of all corrections there has indeed been some kind of response from the community, be it comments or votes. Below I discuss a few examples of threads that received no attention from the community at all.

Despite there being several no response threads, they do not appear to have much in common. For instance, one correcting comment that received no response from the community appears at the end of a thread discussing the circumstances of the situation depicted in the original post (Example 11), meanwhile another thread contained a jocular response to a serious question asked by the OP prior to the correcting comment (Example 12). Example 11 below is an extract from the full discussion posted in response to the OP posting a picture of her dog in a leash inside her house:

(11) Redditor B: The answer to OPs question why his dog looking at him funny is also that same answer though [0]

Redditor A, OP: I never asked a question. My title states, “[post title]” Don’t need to know why. I just thought he was making a funny face, and I thought others would agree. Also, I’m a girl. [1]
(A18)

It is possible that no further comments followed this exchange because the topic was, in the earlier comments as well as OP’s response, mostly how long the dog had had the leash on before the picture was taken and the dog's expression. If this is the case, the presumed misinterpretation of OP’s gender was secondary to the discussion that unfolded and thus redditor B had no further need to engage with OP. It is also worth noting that redditor B had not, prior to this comment, posted anything to the comment thread, although several others had participated in a discussion of the dog's well-being. It seems then, that redditor B was simply passing through and wanted to

take the OP's side in a discussion that got a little bit heated: this may be why there were no further comments addressing the misgendering. Furthermore, the OP seems more bothered by the fact that redditor B mistakenly said that her post title contained a question than she was about the incorrect use of the masculine determiner and pronoun. In this case, then, it seems gender was not all that important even for the person who got misgendered.

Contrastingly, in Example 12 the original post itself was serious in tone while the comment by redditor B was seemingly intended as a joke, which is the opposite of what we saw in Example 11. In the original post the OP is looking for advice on how to approach someone who they believe to be "out of their league." Redditor B then proceeds to offer their input:

- (12) Redditor B: It's always good to ask if she is a feminist or not and then proceed from there.

Redditor A, OP: Im the girl [1]

(A39)

This is an interesting example in that it also contains assumptions regarding gender. Firstly, redditor B, basing their interpretation of gender on a single question asked by the OP, assumes that the two people involved are heterosexual. They further assume that it is the man in this setting that is less attractive than the woman, not vice versa. Perhaps this redditor B, too, relies on the stereotype that "women do not exist on Reddit" and therefore jumps to the conclusion that the OP must be the man in this scenario. The OP does also seem to subscribe to a similar mindset, because her comment implies the default of "one man, one woman." Perhaps because both redditors seem to be on the same wavelength there is no need for a further discussion. Redditor B's comment would also not have been particularly helpful even if the OP had been a man, which probably also contributes to the lack of further discussion (which could have been something along the lines of "in that case let me suggest..."). Hence, gender roles and ideals do seem to play a part in this example unlike in Example 11, but the outcome remains the same: no votes or discussion follows.

Another correcting comment not receiving any attention from the community is found at the end of a discussion about getting fired. Example 13 contains the last two comments in the thread:

(13) Redditor B: [...] Spoiler, they indeed fired him [redditor A].

Redditor A, OP: lol her (yeah I know the default on Reddit is to assume that everyone's a guy, but Yep I am a girl) [1] (B8)

Although the three preceding comments in this thread had been strictly related to being let go from a job, redditor A shifts the focus to gender. She has not previously partaken in the thread and seems to be jumping in only to post her correction. Perhaps therein lies the explanation for the lack of response from the other two redditors in the thread; it is possible that they were only interested in participating in the discussion where it concerned getting fired. It is also noteworthy that redditor A also chooses not to engage in the topic initiated by herself, although redditor B's first comment (not shown in the excerpt above) was a question clearly directed at her. It seems then, that both redditors had different motivations for engaging in the discussion and that is what led it to fall apart at this point, leading to a no-response reaction.

It was not uncommon to find comment threads where the last message is the correction due to it simply concluding the conversation and there thus not being more to say for anyone. One such interaction is seen in Example 14, which shows the comments to a post asking if anyone knows of accommodations in a certain city:

(14) Redditor B: There is a girls hostel next to the college. [Name of hostel], you can also try [name of another hostel] its good for girls.

Redditor A, OP: Bro i am boy [1] (A2)

Here it is possible that redditor B was most familiar with accommodations for girls specifically and therefore felt that they had nothing further to offer to redditor A after he clarified his gender. Another possible explanation would be that perhaps realizing their mistake made redditor B shy away from further engaging with redditor A. These kinds of conclusions to exchanges of comments were fairly common; while opportunity for more existed (e.g., acknowledging the mistake, or commenting on the main topic of the discussion thread), it never took place. Regardless of the matter discussed one comment must always be the concluding one; in 31 cases redditors B did not say anything after they had been corrected, thus leaving redditor A's corrections to mark the end.

4.3.2 Receptive Responses

As discussed earlier, the receptive types of responses could further be characterized as either an acknowledgement of the mistake, as leading to editing of the original comment, or simply as generally amicable. Table 4 shows the distribution of the different types of receptive responses. A simple acknowledgement was by far the most common. This meant responses in which the corrected party made clear in (one of) their next comment(s) that they had seen the correction and accept it (e.g., “Ok” [A32]), often accompanied by a more or less elaborate apology (e.g., a simple “My b” [B24] or a wordier apology such as “Sorry I didn’t know I should’ve looked in your profile before saying he I hope you don’t mind me misgendering you [sic]” [B29]).

Table 4: Types of receptive responses observed in the data.

	Instances	%	
Acknowledgement	15	52	
Edit	8	28	
Amicable	6	21	
	29	100	Total

Edits, while less common, could also be considered as a kind of acknowledgement, especially because they often also contained apologies. However, seeing as they are acknowledgements taken one step further in that the person making the misinterpretation acknowledges their mistake to the degree that they go back to edit their original comment, it seemed appropriate to distinguish between simple acknowledgements and edits. The edits in the data are often accompanied by replies such as “Comment edited” (B14) or “Oh ill [sic] change that [...]” (A7). Amicable receptive responses are an interesting set of replies: half of them were jocular in tone while still being receptive of the correction. For instance, Example 15 below demonstrates an exchange which whilst being lighthearted still respects the gender of the other user.

(15) Redditor A: Then be one

Redditor B: Yes sire

Redditor A: I’m a girl

Redditor B: Yes mrs. Sire

(B19)

The other amicable responses include one where the redditor doing the (unintentional) misgendering has a positive reaction to discovering that the “man” they were talking to was in fact a girl (the noun she used herself). In this case the response was “Slow clap 🙌” (B15), which was such a strange reaction that it prompted a third person to join the conversation to ask for a clarification of the intent behind this comment, which they never got. Either way, because this particular response seemed friendly enough it was categorized as amicable.

4.3.3 Unreceptive Responses

The unreceptive responses on the other hand were either abrasive, dismissive or expressed disbelief, or contained a reiteration of the gendered word which led to a correction. These findings are summarized in Table 5. Again, this was the least common type of response, covering only 15% of all responses. Even so it is interesting because while hostility is not more prevalent than civility, it is more expected, as pointed out for instance by Ksiazek, Peer, and Zivic (2015).

Table 5: Types of unreceptive responses observed in the data.

	Instances	%	
Abrasive	5	45	
Dismissal/disbelief	3	27	
Reiteration	3	27	
	11	100	Total

Most often, the unresponsive reply was in some manner abrasive in tone and related to the true gender of a redditor. For instance, a male user gets called a girl because he posted a picture of a ring his father gave him. His correcting the other redditor did not result in an apology, an edit, or an amicable comment, but rather further backing in their initial assertion that only girls receive rings from their fathers.

An example of the dismissal or disbelief kind of unreceptive responses is a redditor challenging the correction rather than being accepting of it or ignoring it, which were the two most commonly occurring responses (Example 16).

(16) Redditor A: 😂😂 and another thing I am a boy...

Redditor B: Look my girl identifies as her/him. Is that you baby?

Redditor A: 😂😂 I am biological male...And I am just a student... my age is 20 😊 ...but you are so lovely 🌹

Redditor B: I don't think you are. I think you're biologically female. You chatted me up on her yesterday as my girl. (A3)

This exchange, while undoubtedly falling under the unreceptive category, is not particularly hostile and showcases the multifaceted nature of discourse that can follow an explicit revealing of one's gender identity. Of course, in this case there seems to be some kind of history between the two redditors, which does not perhaps represent the most prototypical interaction even for its category (unreceptive) or type (disbelief or dismissal). Even with the full context of the discussion between these two it is difficult to say whether these two users did in fact know each other from before or whether it was perhaps just a thing one of them said for whatever reason. Redditor A did not, however, in any of his comments acknowledge that any prior (private) messaging had taken place between the two, which is why I chose to include this example here regardless of its atypicality (in addition to the fact that it demonstrates that it is not always straightforward to define the nature of the discourse that follows a correction of misgendering).

The final type of unreceptive responses, reiteration, is equally uncommon as dismissals and disbelief. One might even argue that these are a kind of dismissal, but I have chosen to separate them, as they display a greater degree of aggression than dismissals otherwise do: not only do they simply refuse to be respectful (or indeed drop the subject altogether, as does the majority who never replies anything at all), but they also feel the need to reiterate their original misgendering so as to showcase that they know they said the wrong thing and that they will not apologize for it. For instance, one correction stating that the redditor was a girl was met with a "shut up he" (i.e., repeating the masculine third person singular pronoun which had been used previously). This is seen in Example 17, where the reiteration is perpetrated by a third redditor:

(17) Redditor B: He could be "ew"-ing at the fact that people are getting doxed [...]

Redditor A: She

Redditor X: Shut up he

Redditor A: ?? I'm a girl (B20)

4.3.4 Reception in Terms of Votes

Another, complementary approach to defining the nature of discourse following corrections of incorrect assumptions or interpretations of gender is to look at the number of votes. As previously stated, this cannot replace qualitative analysis because as seen above, the ensuing discussions can be complex, and it is not possible to determine what has caused users to give a certain comment an upvote or indeed a downvote. However, in combination with a qualitative analysis investigating the up- and downvotes can offer additional perspectives to what is going on in discussions about gender.

The concordancer provides data about the total number of votes a comment containing the search items has received. The number is based on the corresponding number stored in the Reddit dump which the concordancer iterates through; therefore, when checking following the URL to the comments now (some months later) the number of votes may be different. Because the count of votes may, in theory, be everchanging, the exact numbers considered in this part of the analysis are those provided by the concordancer, as checking them manually while feasible may prove futile since there are no guarantees that they will not further change. On average, comments containing a correction of wrong interpretations of gender (72 in total in the data) received -0.4 votes. This would imply a poor reception of such comments if it was not for the fact that this number is heavily skewed by two comments which received -63 and -95 votes, respectively. In reality, most of these comments received only one upvote (observed in 57 of the comments, corresponding 79% of all comments). If the two outliers were ignored, the average would go up to 1.7. Remarkably, the two comments receiving the most downvotes are the ones where the following discussion is best described as receptive. This shows an incongruence between receptive responses and votes, which in turn may indicate that while the corrections themselves can and often are received well (as in, for instance, taking accountability for the mistake), posting the correction may, in itself, not be very popular. Here, too, it is worth further analyzing the specific instances to understand what exactly is going on.

In Example 18 it becomes necessary to expand the context to also include comments which preceded the correction of a misunderstanding. This particular correction was

categorized as receptive (an edit). As this comment thread shows, simply because the correction itself is well received (as in that it is heeded) does not automatically dictate that the entire interaction is also friendly.

(18) Redditor X: blood pressure immediately dropped after reading that tweet

Redditor A: guys can u downvote this comment and upvote mine I want to be the most upvoted [-113]

Redditor B: chat, downvote this person's reply and upvote mine [edited]

Redditor A: im a girl [-64]

Redditor Y: This is not an amongus lobby fam

Redditor A: he said "this guy" first and then edited the comment I corrected him [-16]

Redditor B: ironic (B30)

Interestingly in this example (18) the fact that redditor B went out of their way to edit the comment with the misinterpretation is in turn poorly received by redditor A: it seems that this was not the reaction she wanted out of them. One might speculate that this person is intentionally agitating others because her first message goes against Reddiquette, which is linked in this subreddit's rules. Reddiquette discourages acts such as downvoting for reasons other than a post or comment not contributing anything good to the community. Not only does redditor A in this case demand that others break these rules by downvoting someone else's comment "just because," she also asks that they upvote her so that she can have the most upvotes. This comment sets the tone for the subsequent discussion in which we observe the correction and its receptive response. All comments posted by this person get downvoted, probably because of the initial breaking of rules of the community. Thus, this reveals further context that a quantitative analysis would not have been able to address, namely that the downvotes are not tied to correcting someone for misgendering but rather the overall character of this particular redditor.

The comment that received the greatest number of downvotes in the entire data (-95) shows similarities with the comment described above. This comment thread can be seen in Example 19 below. Here the person who posts the correction (redditor A) is

also the OP. Her post criticizes a well-known content creator for playing a game that according to her fetishizes incest. Despite getting quite heavily downvoted in the comments, the post itself received over six hundred upvotes, which is an interesting contrast to the previous example (18), where the person correcting another redditor at no point posted anything that the community would have approved of, at least based on the downvotes.

- (19) X: Is... is this about the game that has literal cannibalism and other super messed up horror elements in there?

I totally get you not wanting to engage with that content and that's fine, but I don't think that kind of media is meant to glorify any of it? It's a horror game for crying out loud! The point is to make people uncomfortable.

Redditor A, OP: Didn't the creator post a picture of the both of them embracing with the caption "stay mad"? [-123]

Redditor B: you feel that as a personal attack or something???????

not everything is made to upset you mister worldwide

A: I'm a girl. [-95]

B: oh sorry miss worldwide now can you cope with the fact that not everyone is interested on what triggers you or about you???

A: Is everything alright at home? That's not supposed to be sarcastic, it just seems like you've had a tougher time than me. I'm willing to listen. [-62] (B17)

Here, however, the downvoting seems to be restricted to this comment thread, which begins with a third party (X) discussing further details of the game and slightly disagreeing with OP's sentiment. This attracts a reply from the OP defending her stance which does not land well judging by the number of downvotes this comment received. This then seems to turn other users against OP, because all her following comments get downvoted as well. Therefore, again, the correction itself seems to get downvoted because of something previously said rather than the fact that it was made. It is also possible that the correction gets downvoted because the comment it appears in does not address the issue raised in the comment it is a reply to (that is, whether OP feels personally attacked by the content creator playing such a game). Redditor B seems to have felt that their question was more significant than the fact that they made an incorrect assumption about a stranger's gender, while the

misgendering appears to have been much more important to OP. This difference in processing the content in redditor B's comment may be explained by a detail omitted in the transcription, namely information about OP's gender found in her avatar: her avatar has feminine characteristics, such as long, wavy hair and pink bunny slippers, but most importantly, perhaps, the avatar is accompanied by a heart in the trans pride flag colors. This could simply imply allyship with the trans community, but it is also possible that OP is transgender herself. This could explain why she felt it important to correct redditor B. Overall, the unfriendly tone of the discussion may be caused by a difference in what redditors A and B thought was most central in redditor B's first comment rather than an issue with them being corrected.

But what about corrections that have received a relatively large number of upvotes? One comment was significantly more upvoted than others, receiving fifty upvotes. In this case (Example 20) redditor A is also the OP of the post. Unfortunately, full context is missing because the moderators of the subreddit it was posted to took it down. However, the title of the post is still visible in addition to the comments. Based on these it seems the original post had something to do with an achievement in a game, with the title "My boyfriend is going to strangle me." OP mentioning a boyfriend invites a heteronormative interpretation of his gender, thus leading to a misinterpretation, as seen below.

(20) Redditor X: Long as it's consensual

Redditor B: And if she likes it

Redditor A, OP: I'm a boy [50]

Redditor Y: Let's go my guy. Also congrats on the shiny as well. [5]

Redditor Z: Ugo boi! My daughter is married to a woman. Not Les, just Ace.

It may take a few decades before nobody assumes that "my boyfriend" means you're a girl. [12]

Redditor B: Oh damn my bad 😊 [2]

(B6)

This interaction is on all accounts very friendly, and this also serves as an example of a receptive response of the acknowledgement type. Since OP's comment does not include anything other than a correction, the number of upvotes indicate a supportive environment for gender expression and/or non-straight relationships. Moreover, the

subsequent comments by Y and Z are also supportive of homosexuality; Y indicates this simply through a positive reaction while Z goes on to share a story of their daughter who is also part of the LGBTQ+ community and essentially tells redditor A not to take the assumption that he was a girl because of having a boyfriend too hard by painting a picture of a more inclusive future. Noteworthy all comments in this thread have received upvotes, providing evidence of a community that is truly accepting of queer users.

It is curious that also among the top voted corrections in the data is one which was not received well by redditor B in its comment thread. In this case it seems, though, that the problem was never redditor A or her comments, but B's behavior. All their comments were downvoted by the community while A's comments had the opposite reception even though her first comment was not necessarily entirely unproblematic either, as seen in Example 21.

(21) Redditor B: Mommy just made him undateable... 🤔😂 [-18]

Redditor A: By trashy women that aren't worth his time [25]

Redditor B: B: uh oh... 🚨 Incel Alert! 🚨🤔😂 [-26]

Redditor A: I'm a girl [14]

Redditor B: sure sure... Lol [-13] (B23)

This particular response by redditor B was categorized as unreceptive because redditor B responded with disbelief. Again, we see an incongruence between the reception itself and the response the correction otherwise got. The community did not seem to appreciate any of redditor B's contributions, but it is hard to determine whether the fact that their response to the correction ("sure sure... Lol") received so many downvotes is due to this particular community being welcoming to discussing gender or because other users had a negative opinion of redditor B because of their earlier comments.

Of the three categories for responses to correcting comments (receptive, unreceptive, and none), no responses at all were most common, closely followed by receptive responses, with 31 and 29 threads, respectively. Unreceptive responses were the least common, making up the remaining 11 cases. Because these categories were based on the comments and did not consider votes and because all Reddit posts and comments

start out with one upvote by default, eight out of the total of 31 threads receiving no responses also received no attention when it came to votes. In other words, these eight comment threads had only a single upvote (the default one) and no subsequent comments. There is, of course, no way to know for certain that the number of votes did not fluctuate over time and that they just happened to total to one. However, since the number of votes were checked both by the concordancer, which shows the number of votes the content received at the time of data collection (late 2023), and manually some months later (March 2024), I was able to identify those threads where the number of votes at least ostensibly had not changed.

Although there were several comment threads where no comments followed the correcting one and where the correcting comment did not receive any votes, there seems to be little such threads have in common. In one, the original post was lighthearted and intended as a funny, entertaining post but the comment thread took a serious turn, while the opposite was true for another. In some cases, the lack of response from others seems to be caused by the fact that the comment containing the correction digresses from the main topic of the thread, with the correction itself being a tangent that other redditors are uninterested in engaging with further. At other times the correcting comment concludes the discussion simply because there is nothing more for any party to say.

The receptive responses in the data were most commonly, in over half of the receptive responses, acknowledgements that a mistake had been made, often accompanied by an apology. The other half of these types of responses were comprised either of cases where the redditor B goes back to edit their original comments or simply generally responds in a way that can be characterized as amicable. The fact that responses that are receptive are so common can be thought to be reflective of the demographic of Reddit, of which 71% is more likely to be politically left-leaning according to Castillo's statistics (2023); being politically liberal is commonly associated with being progressive and thereby more accepting of different gender identities and perhaps, by extension, redditors are therefore way more likely to respond in an accepting and friendly way to being corrected on their erroneous assumptions about gender, or even going as far as to go back to edit their original comment so as to be respectful of how the other redditor wishes to be addressed.

Unreceptive responses were in the minority, representing only 15% of responses. These were either generally characterizable as abrasive, as dismissing of or not believing redditor A's gender, or ones where redditor B chooses to repeat their original misjudgment (e.g., by repeating a pronoun). The fact that overtly negative responses were so few and positive ones so common seemingly further corroborates the initial finding that the discourse following misinterpretations of gender is well received across Reddit. However, this is complicated by the significant number of comment threads where the correction of an incorrect assumption was not followed by any comments (or, in a few cases, even votes): the absence of any discourse is hardly neutral, as one might initially be tempted to surmise. A redditor B choosing not to respond to being corrected could be seen as receptive in the sense that they do not challenge the correction (as in for example the reiterations of the initial assumption) or perhaps it could also be seen as a silent acknowledgement that a mistake has been made on their part and that they step away from the spotlight so as to let the redditor A remain in the spotlight as the "wounded" party. On the other hand, not replying to a correction could also be viewed as a refusal to accept responsibility or as not gracing redditor A with a response they perhaps felt they were entitled to or worthy of. Thus, while the "no response" -category may initially seem synonymous with neutrality, it is not necessarily so, and this gives depth to the significance of this type of reception. Overall, then, the discourse that follows misinterpretations of gender are multifaceted, although characterizing it as mostly receptive and positive is justified, since at least in some of the cases where no further discourse followed one might assume that it was motivated by something other than contempt, although such cases are also present among all the accepting silence.

4.4 Discussion

Before moving on to my concluding remarks, I briefly discuss the answers that the data provides for the research questions. This subsection also addresses how the findings fit into the larger context, both in terms of previous research and beyond scholarly discussions.

The first research question, how redditors' use of gendered features reflects masculine and feminine language and what the balance between the features looks like, was answered through compiling lists of such features and then qualitatively

analyzing such threads where the word count preceding an incorrect assumption about the redditor's gender was at least 50 (16 threads in total). The analysis revealed that masculine and feminine features were fairly even in frequency (60 and 64, respectively), when considering all 16 threads. However, there was great variation in how many were observed in individual threads, with masculine features ranging from 1 to 7, and feminine from 0 to 11. A prototypical post, however, contained both and the difference in the number between them was small at 2.5. Understanding what the average thread looks like allows us to understand what is "normal" in the context studied. Among the most commonly employed gendered features were topic-related choices: discussing issues of some sort was frequent in the data (a masculine feature), but so was talking about personal matters and emotions (both feminine features). Additionally, it was not uncommon to find threads in which redditors expressed their opinions, talked about objects, used judgmental phrases, shared their strong convictions (masculine features), or used personal and reflexive pronouns frequently (feminine feature). Thus, it can be concluded that even in the anonymous setting of Reddit, gender is communicated through language. It is not, however, always interpreted correctly even so.

The second research question addresses how common each type of misinterpretation is and how exactly they are made. To answer the first part of this question the data was annotated for both the assumption and correction. Most of the incorrect assumptions were that the redditors were male (83%); this was six times more common than an incorrect assumption that the Reddit users were female (14%). There were also two cases (3%) where the exact assumption was vague, but where it was clear enough that it was incorrect regardless of its obscurity. The latter part of the second research question was answered by identifying the exact word in each thread which contained (or was perceived to contain) the assumption. These words or, in some cases, phrases were then organized into semantic categories. This showed that assumptions were most commonly contained in gendered nouns serving a vocative function. It was almost as common to see the assumptions contained in the use of third person singular pronouns or determiners. A less frequent but no less interesting category were words which could be characterized with so-called subpar maleness. Together with comments assuming not only that user is male but also the user's sexuality, this communicates that redditors' gender ideology, and perceptions of

gender roles are still rooted in quite traditional views of gender, especially when it comes to the expectations they have for men.

The third and final research question pertained to the nature of the discourse that follows misinterpretations of gender and the corrections that follow them. In answering this question, I utilized methodologies from corpus-assisted discourse studies together with an analysis of the votes that the corrections received. Most often (in 31 cases out of 72), the party who misgendered another user (redditor B), did not return to post any further comments. I suggest that this radio silence is not devoid of purpose but could instead communicate that the redditor B for instance does not feel that misgendering a stranger on the internet is significant, that they perhaps do not wish to acknowledge their mistake, or perhaps they simply intend to step out away from the spotlight to give space to the misgendered interlocutor (redditor A). Where there was a response from redditor B, however, it was most commonly receptive, often being an acknowledgement of the mistake. Unreceptive responses were uncommon (observed in 11 out of 72 threads, or 15%). Receptive comments being nearly as common as the lack of a response together with the scarcity of unreceptive responses to corrections of misgendering tells us that redditors are fairly receptive to being corrected if they make mistakes when assuming other users' gender, although this may not always mean that the mistake is acknowledged either.

In my discussion of previous research, I mention three of Gee's (2011) building tasks of language, namely significance, identities, and relationships. Throughout my analysis we have seen how language is used to either assign or deny the significance of discussing one's gender on Reddit: some redditors are willing to acknowledge this significance for instance by editing comments containing mistakes, while others have devalued it through dismissal or disbelief. Identities have been constructed, perhaps primarily by redditors B when they assign a gender to a stranger (redditor A) on the internet. Similarly, redditors A also indirectly and perhaps subconsciously construct the image of themselves and their gender in how they use language. We have also observed how the relationships between two or more strangers on the internet either get nurtured in friendly exchanges or turn sour when there is not enough mutual understanding or common ground to build on. The reality of things considered significant, of the identities of redditors, and of relationships between Reddit-users are all constructed through written discourse. But these matters, of course, go beyond

the platform they appear on; any CMC platform functions as a catalyst for the reality beyond the screen. While we *can* adopt a different role on anonymous platforms on the internet, it does not inherently follow that we do. The online reality is an extension of the offline world.

5 Conclusion

This thesis shows that gendered linguistic features are also present in anonymous social media settings; all threads analyzed for such features contained at least three of them. Furthermore, all except one contained both masculine and feminine features and there were overall a few more feminine features. Despite this, most redditors were incorrectly thought to be male, with assumptions most commonly being made by using either gendered nouns as vocatives or through the use of third person singular pronouns or determiners. When being corrected on their misinterpretations, redditors generally either did not post a reply at all or were receptive. This tells us that generally Reddit is a place where one can explicitly express one's gender without a fear of being met with hostility.

As misinterpretations of gender have not been extensively studied, this thesis is something of a pilot study and thus limited in scope. This means that avenues for further research into the topic now await addressing. These include studying a larger sample which would be possible if the data was approached employing more corpus linguistic methods, comparing threads authored by L1 and L2 speakers of English or threads in English and another language, and broadening the analysis of any of the research questions of this thesis. For instance, due to limitations regarding space, it was not possible to discuss the reception of correcting comments in terms of the votes the replies received. Further details of possible future research were discussed in section 3.2.1, and I hope someone interested in studying misinterpretations of gender can find inspiration for how to deepen our knowledge of the phenomenon in my suggestions.

This thesis has addressed a research gap in the current understanding of how language and gender intersect in computer-mediated communication. While the two have been studied extensively, no previous studies have focused specifically on misinterpretations of gender, perhaps because most settings that have been investigated have not been anonymous in the way Reddit or corresponding social media platforms are. Not only are the findings in this thesis significant in that they add to existing knowledge within the field of linguistics, but they are also valuable beyond academia; more and more of social interactions take place online and gender and its multiplicity are not far removed from this context. By understanding how

language and gender work in anonymous social media settings, we unlock a new level of understanding the world we live in and its complexities.

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Appendices

Appendix 1 Search Words

The following list contains the phrases that were fed into the Python code for it to retrieve from the Reddit dump, 176 in total. The code is not case sensitive and thus there was no need to account for different alternatives when it comes to the letter case. The two asterisks (**) present in some of the items of this list represent a wildcard (i.e., any word or sequence of letters appearing between two spaces).

- | | | | | | |
|-----|-------------------------|-----|----------------------------|-----|---------------------------|
| 1. | I am ** boy | 14. | I am a ** gender
queer | 26. | I am an **
genderqueer |
| 2. | I am ** female | 15. | I am a **
genderqueer | 27. | I am an ** girl |
| 3. | I am ** gender
queer | 16. | I am a ** girl | 28. | I am an ** male |
| 4. | I am **
genderqueer | 17. | I am a ** male | 29. | I am an ** man |
| 5. | I am ** girl | 18. | I am a ** man | 30. | I am an ** non
binary |
| 6. | I am ** male | 19. | I am a ** non
binary | 31. | I am an **
nonbinary |
| 7. | I am ** man | 20. | I am a **
nonbinary | 32. | I am an ** non-
binary |
| 8. | I am ** non
binary | 21. | I am a ** non-
binary | 33. | I am an **
woman |
| 9. | I am **
nonbinary | 22. | I am a **
woman | 34. | I am boy |
| 10. | I am ** non-
binary | 23. | I am an ** boy | 35. | I am female |
| 11. | I am ** woman | 24. | I am an **
female | 36. | I am gender
queer |
| 12. | I am a ** boy | 25. | I am an **
gender queer | 37. | I am
genderqueer |
| 13. | I am a ** female | | | | |

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|-----|----------------------------------|-----|------------------------------------|-----|-------------------------------------|
| 38. | I am girl | 54. | I identify as **
non-binary | 68. | I identify as an
** female |
| 39. | I am male | 55. | I identify as **
woman | 69. | I identify as an
** gender queer |
| 40. | I am man | 56. | I identify as a **
boy | 70. | I identify as an
** genderqueer |
| 41. | I am non binary | 57. | I identify as a **
female | 71. | I identify as an
** girl |
| 42. | I am nonbinary | 58. | I identify as a **
gender queer | 72. | I identify as an
** male |
| 43. | I am non-binary | 59. | I identify as a **
girl | 73. | I identify as an
** man |
| 44. | I am woman | 60. | I identify as a **
male | 74. | I identify as an
** non binary |
| 45. | I identify as **
boy | 61. | I identify as a **
man | 75. | I identify as an
** nonbinary |
| 46. | I identify as **
female | 62. | I identify as a **
non binary | 76. | I identify as an
** non-binary |
| 47. | I identify as **
gender queer | 63. | I identify as a **
nonbinary | 77. | I identify as an
** woman |
| 48. | I identify as **
genderqueer | 64. | I identify as a **
non-binary | 78. | I identify as boy |
| 49. | I identify as **
girl | 65. | I identify as a **
woman | 79. | I identify as
female |
| 50. | I identify as **
male | 66. | I identify as a**
genderqueer | 80. | I identify as
gender queer |
| 51. | I identify as **
man | 67. | I identify as an
** boy | 81. | I identify as
genderqueer |
| 52. | I identify as **
non binary | | | | |
| 53. | I identify as **
nonbinary | | | | |

82. I identify as girl
83. I identify as male
84. I identify as man
85. I identify as non binary
86. I identify as nonbinary
87. I identify as non-binary
88. I identify as woman
89. Im ** boy
90. I'm ** boy
91. Im ** female
92. I'm ** female
93. Im ** gender queer
94. I'm ** gender queer
95. Im ** genderqueer
96. I'm ** genderqueer
97. Im ** girl
98. I'm ** girl
99. Im ** male
100. I'm ** male
101. Im ** man
102. I'm ** man
103. Im ** non binary
104. I'm ** non binary
105. Im ** nonbinary
106. Im ** non-binary
107. I'm ** nonbinary
108. I'm ** non-binary
109. Im ** woman
110. I'm ** woman
111. Im a **girl
112. Im a ** boy
113. I'm a ** boy
114. Im a ** female
115. I'm a ** female
116. Im a ** gender queer
117. I'm a ** gender queer
118. Im a ** genderqueer
119. I'm a ** genderqueer
120. I'm a ** girl
121. Im a ** male
122. I'm a ** male
123. Im a ** man
124. I'm a ** man
125. Im a ** non binary
126. I'm a ** non binary
127. Im a ** nonbinary
128. Im a ** non-binary
129. I'm a ** nonbinary
130. I'm a ** non-binary
131. Im a ** woman
132. I'm a ** woman
133. Im an ** boy

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|-----------------------------|---------------------------|----------------------|
| 134. I'm an ** boy | 148. I'm an ** non binary | 161. Im genderqueer |
| 135. Im an ** female | 149. Im an ** nonbinary | 162. I'm genderqueer |
| 136. I'm an ** female | 150. Im an ** non-binary | 163. Im girl |
| 137. Im an ** gender queer | 151. I'm an ** nonbinary | 164. I'm girl |
| 138. I'm an ** gender queer | 152. I'm an ** non-binary | 165. Im male |
| 139. Im an ** genderqueer | 153. Im an ** woman | 166. I'm male |
| 140. I'm an ** genderqueer | 154. I'm an ** woman | 167. Im man |
| 141. Im an ** girl | 155. Im boy | 168. I'm man |
| 142. I'm an ** girl | 156. I'm boy | 169. Im non binary |
| 143. Im an ** male | 157. Im female | 170. I'm non binary |
| 144. I'm an ** male | 158. I'm female | 171. Im nonbinary |
| 145. Im an ** man | 159. Im gender queer | 172. Im non-binary |
| 146. I'm an ** man | 160. I'm gender queer | 173. I'm nonbinary |
| 147. Im an ** non binary | | 174. I'm non-binary |
| | | 175. Im woman |
| | | 176. I'm woman |

Appendix 2 Gendered Features

Below is a list of those linguistic features which are in previous research associated with a specific gender and which were here used to help determine to what extent redditors' language use reflects stereotypical notions of "women's" and "men's" language (research question 1). Note that non-standard forms have been found to be both a feature of masculine and feminine language by different scholars (bolded in the tables below).

Table 6: Features associated with masculinity (18).

Feature	Discussed in
Aggression, including profanity	Herring and Stoerger (2014), Thomson and Murachver (2001)
Challenging speech acts	Herring and Stoerger (2014)
Contradictions	Thomson and Murachver (2001)
Grammatical errors	Thomson and Murachver (2001)
Informational style (talking about objects)	Argamon et al. (2003), Thomson and Murachver (2001)
Insulting others	Herring and Stoerger (2014), Thomson and Murachver (2001)
Judgmental phrases	Thomson and Murachver (2001)
Justifiers	Thomson and Murachver (2001)
Non-standard forms	Thomson and Murachver (2001)
Noun specifiers	Argamon et al. (2003), Thomson and Murachver (2001)
Opinions	Thomson and Murachver (2001)
Sarcasm	Thomson and Murachver (2001)
Self-promotion	Thomson and Murachver (2001)
Sexually explicit messages	Herring and Stoerger (2014)
Strong assertions	Thomson and Murachver (2001)
Topic: issues	Thomson and Murachver (2001)
Varied emoticon use	Herring and Stoerger (2014)
Verbs of action	Thomson and Murachver (2001)

Table 7: Features associated with femininity (22).

Feature	Discussed in
"Aligned" stance towards others	Herring and Stoerger (2014)
Apologizing	Argamon et al. (2003), Herring and Stoerger (2014), Thomson and Murachver (2001)
Compliments	Argamon et al. (2003), Thomson and Murachver (2001)
Emoticons	Herring and Stoerger (2014)
Exclamation points	Herring and Stoerger (2014)
Expressing appreciation	Herring and Stoerger (2014)
Inclusion of "xo"	Herring and Stoerger (2014)
Intensive adverbs	Thomson and Murachver (2001)
Modal verbs	Thomson and Murachver (2001)
Neutral and affectionate verbs	Herring and Stoerger (2014)
Non-standard forms	Herring and Stoerger (2014)
(Personal) pronouns	Argamon et al. (2003), Thomson and Murachver (2001)
Politeness	Thomson and Murachver (2001)
Qualifying and/or justifying assertions, hedging	Herring and Stoerger (2014), Thomson and Murachver (2001)
Representations of smiles	Herring and Stoerger (2014)
Sexually implicit messages	Herring and Stoerger (2014)
Subordinating conjunctions	Thomson and Murachver (2001)
Supportiveness	Herring and Stoerger (2014), Thomson and Murachver (2001)
Tag questions	Argamon et al. (2003), Thomson and Murachver (2001)
Topic: emotions	Thomson and Murachver (2001)
Topic: personal matters	Thomson and Murachver (2001)
Topic: relationships	Argamon et al. (2003)