From Ey to Ze: Gender-neutral Pronouns as Pronominal Change

by

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(Under the Direction of Chad Howe)

Abstract

It is sometimes assumed by cisgender speakers that that the nonbinary use of gender-neutral pronouns is a non-naturalistic imposition on language. This accords with general social attitudes that characterize transgender and nonbinary individuals' gender expressions as unnatural, deceptive, and aggressive. The dissertation tests this assumption by examining both the nonbinary intracommunity norms surrounding pronouns, through a usage survey, and the broader population's interaction with them, through a processing/production task.

In the usage survey, singular *they* was far and away the most common, again reinforcing its dominance in English-speaking spaces. However, other neutral pronouns were also selected, and participants often used them for language play purposes as well as gender expression. Assertion, correction, and respect for pronouns varied heavily based on whether participants had a high or low degree of agency over the company they were keeping.

In the processing and production task, familiarity with GQNB people and pronouns was found overall to correlate with the number of correct answers in the production of gender-neutral pronouns. It is possible that emotional and political affiliation with GQNB people provides motivation to acquire these forms. However, it did not impact processing. Singular *they* and animate *it* were as easy to process as binary-gendered pronouns, while neopronouns were more difficult to both process and produce. However, they were not as difficult as nonparadigmatic nonce pronouns, suggesting that the tendency for neopronouns to analogize existing pronoun paradigms helps make them easier to use.

Overall, the textual history and pressures acting on gender-neutral pronouns conform to existing trajectories of pronoun change, suggesting that, while sometimes conscious, these changes are naturalistic. That cisgender speakers with GQNB friends and family can adopt these uses suggests that exposure can help adult speakers adopt the forms. Because the majority of participants have been adults during the span of time that this change has occurred, the adoption of the form supports the usage-based theory of language change.

Index words: non-binary genders, gender-neutral pronouns, pronominal change, lifespan change, usage-based linguistics, language variation and change, English

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Dedication

For my best friend, and for everyone who has ever felt there wasn't a pronoun for them yet. "I, too, will set my face to the wind and throw my handful of seed on high." – Fiona Macleod

Acknowledgments

I would like to thank my participants, and particularly the gender-diverse people who took the time to share their thoughts and experiences of pronouns. I would also like to thank everyone who shared both surveys.

Thank you to the Willson Center for their generous Graduate Research Award, which enabled me to pay participants for the second task.

I would also like to thank my committee for their helpful comments, not only during the defense, but throughout the entire process, especially during the creation of the experimental tasks.

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Introduction

> Don't give it a second thought. You don't have a pronoun for me yet.
>
> Holly Bowers, 1997
> *Read My Lips: Sexual Subversion and the End of Gender*

1.1 What is this dissertation about?

This dissertation is about the development and use of genderqueer pronouns – primarily in English, though other languages will be discussed. The contention of this dissertation is that genderqueer pronouns are not, as has been sometimes assumed by grammarians writing in opposition to them, a non-naturalistic imposition on language. Instead, they are a conscious but naturalistic change in one social group's morphosyntax, arising to fill a lexical gap that is relevant to the group in question. The constraints followed by innovators in neutral pronouns give us important information about the pronouns' status and structure in English. It is not necessarily true that new uses of pronouns are impossible for adult speakers to adopt, but the more closely a new pronoun use resembles an existing one, the easier it is to use. That cisgender speakers with genderqueer and nonbinary friends and family can and do adopt these usages suggests that exposure and opportunities for use can change an adult speaker's pronoun system. Because the change under investigation has happened in the span of

most speakers' adult lives, the adoption of the form supports the concept of lifespan change.

In Section 1.2, language change, especially lifespan change and intentionality, will be discussed. In Section 1.3, pronouns as a phenomenon will be discussed, including the definition of pronouns and how gender works in pronouns. The literature on pronoun change will then be reviewed in section 1.3.2. Section 1.4 will introduce key terminology regarding nonbinary and genderqueer identities and populations, and discuss the reception of these identities in the public eye. Finally, Section 1.5 will present a roadmap of the dissertation, including an outline and an overview of the experimental tasks.

1.2 Language Change

1.2.1 When does Language Change?

Traditional generative grammar holds that people's grammars become fixed after acquisition and do not change significantly throughout the lifespan (Lenneberg 1967) (Chomsky 1995). Obviously, this theory means that language change must happen at acquisition, where children acquire a slightly different variety than their parents did as they attempt to infer a grammar based on the language of those around them and develop different rules from their parents (Lightfoot 1979). Acquisition-based theories, thus, view children as the main drivers of language change. If this theory is true, then it should be difficult and rare an adult speaker to change their variety very much over time. This idea has been the basis of the apparent time hypothesis (Bowie 2005: p. 45).

The usage-based theory of change is derived from the usage-based theory of language in general. In brief, usage-based theories of language posit that, rather than being divided discretely into competence and performance, all usage of language is evidence of how language is organized in the brain, and that language is an extension of other cognitive processes rather than being unique (Joan L. Bybee & Beckner 2015: p. 827). Usage-based theories of change (and variation), therefore, tend to posit that change happens throughout the lifespan rather than at acquisition, because the internal grammar is always updating based on input (847). This allows for the possibility that people's grammars can change over the lifetime. Both usage-based theory and traditional generative grammar may

be useful in analyzing gender-neutral pronouns. The nature of this dissertation, however, means that I will be largely discussing literature grounded in usage-based theory. For more generative approaches to gender-neutral pronouns, see Conrod (2019b) and L. Ackerman (2019b), as well as both authors' other work.

As Bowie (2005)'s study testing the apparent time hypothesis shows, speakers are not always stable on all features across their adult lives, even though stability is often generally a safe assumption in many circumstances. They[1] found that some features change across the lifespan; in the studied individuals, the feel-fill merger, raising of pre-nasal /æ/, and fronting of word-final /u/ became less marked for some individuals and more marked for others throughout a 20+-year span. More studies on lifespan change have validated that individuals do change some aspects of their speech throughout their lives. Harrington, Palethorpe & Watson (2000), MacKenzie (2017), Kwon (2014), and Rodríguez (2019) all find some level of individual lifespan phonetic change. Fruehwald (2017) finds evidence for not only generational and lifespan change, but also what is called in the paper a Zeitgeist effect. This is a linguistic trend that lingers only for a short space of time, rather than remaining for an entire generation or for an individual speaker's entire lifespan. This is another demonstration of the plasticity of the adult grammar: speakers can make not only permanent but also temporary changes to the way that they speak based on community trends.

[1] Where I do not know for certain the personal pronouns of a given researcher, I will use indefinite *they*. This is because in a dissertation on genderqueer and nonbinary perspectives, I feel obligated to center genderqueer/nonbinary culture; and because anecdotally a higher than average number of researchers on genderqueer pronouns are themselves genderqueer/nonbinary. Therefore, I follow the genderqueer/nonbinary rather than academic community norm in this.

Studies on adult language change in syntax, rather than phonetics, are fewer but growing in number. Stefánsdóttir (2018) working in Icelandic, Raumolin-Brunberg (2005) working in Early Modern English, and Sankoff, S. Wagner & Jensen (2012) working in Québécois French show syntactic lifespan changes. Anthonissen & Petré (2019) contend that aging speakers continue to participate in grammatical innovations throughout the lifespan, rather than stopping once they have acquired their native language. Using the Mind-Bending Grammars Project, a systematic analysis of 17th century English authors' texts, they demonstrated that frequencies of two constructions can shift across the lifespan, that speakers can show increases in the grammaticalization of constructions, and that some adults adults adopt and reanalyze innovative grammaticalization across the lifespan (9).

Several writers have attempted to model language change using usage-based theories. Blythe & Croft (2021) have argued that mathematical data do not support the acquisition-based theory of change at all. According to their models,

acquisition-based change would occur too infrequently to account for the number of changes that regularly happen within a language, while the usage-based theory of language change accounts for them. Neels (2020) uses an idiolectal study of William Faulker to argue for a frequency-driven cycle of constructional generalization where higher frequency of use feeds generalization which feeds higher frequency of use (357). This then allows a speaker to use the construction in novel ways, which pushes its grammaticalization further (358). Sankoff (2019) proposes three separate speaker trajectories for a change in progress. The change may be acquired by young speakers in childhood. The change may also be acquired by older speakers, as a large portion of younger speakers use it and it becomes more common in the community. Other older speakers may become more conservative and show retrograde lifespan change in the opposite direction of the ongoing change. Thus, even speakers who are not adopting the ongoing change can show flexibility throughout their lifespan.

Although many features may remain stable throughout the lifespan, adult speakers can admit grammatical change into their mental grammars. This has obvious implications for definite gender-neutral pronouns. These items are very new – in usage if not in coinage – and if it was true that change can only happen at acquisition, we would expect it to be extremely difficult for anyone not presently acquiring language to be able to use these constructions. If participants are able to use these new forms, despite the fact that many of the forms did not exist when they were still at acquisition age, that will serve as further evidence for a usage-based theory of change.

Accordingly, this thesis is in dialogue with the concept of lifespan change, and it is expected that the adoption of gender-neutral pronouns will show evidence of lifespan change for many speakers. Because pronouns are generally considered a closed, grammatical class, and because closed classes are generally considered conservative and resistant to change, this would be supportive of the possibility that an adult speaker's grammar can indeed change after the age of acquisition.

1.2.2 Intentionality in Language Change

Canonical language change is unconscious and unintentional (Keller 2005: p. 37). Although language changes all the time, most language changes happen without

any intentionality on the part of the community seeing the change. The adoption of, for instance, the *let alone* construction[2] investigated by Neels (2020), or the vowel shifts in Noam Chomsky's speech investigated by Kwon (2014) are not consciously instigated by the speaker or by the community; they simply occur as emergent properties (what Keller (2005: p. 58) calls phenomena of the "third kind"). It therefore happens without the community or the individual's knowledge or intention.

[2] As in "I don't even hear a ringing, let alone a loud one".

A well-entrenched exception in sociolinguistics is what is called in the Labovian tradition *change from above*. Change from above, and its opposite, change from below, have two different definitions in linguistics, generally used interchangeably. The "above" and "below" refer to above or below the level of consciousness Labov (1965: p. 124). In other words, change from below is unconscious change, and change from above is conscious change. However, Labov also links the terms with social prestige: change from above happens due to pressure from the prestige variety, while change from below is nonprestigeous (p. 125). Studies on change from above include Hickey (1998), Sanchez (2007), Sano (2009), Duchet & Trapateau (2016), Arroyo (2016),Hernández-Campoy, Conde-Silvestre & García-Vidal (2019), and Lavidas (2019), among others.

The change from above/below model is useful for examining prestige dynamics, but innovative gender-neutral pronouns are simultaneously conscious and, as will be shown below, extremely stigmatized. Although they are intentional language change, the innovation is driven by the experiences of the group that is adopting them, not by prestige. It is necessary, therefore, to look to other examples of intentionality in language change to understand the phenomenon better.

For example, Deumert (2003), in discussing the role of the individual in language change, also discusses the role of intentionality. The contention is not that intentionality is always a useful way of analyzing language changes, but simply that it can play a role in some cases (66). Thomason (2007) argues that intentional language change is not always minor but can result in nontrivial lexical structural changes to a language. Bakker (2019) analyzes genderlects and mixed languages (two different types of linguistic structures) as intentional changes; both are intentional language used to index group identity. Storch (2019) examines the naming of people and objects, generally an intentional process, as an agent for language change and social change. Burridge (2012) also

recognizes the role of speaker agency and political motivation in euphemism creation. Nicolaï (2013)'s analysis is that intentional language change (like many changes) is a process of signalling. Speakers can develop meaning through their uses of language, showing, or not showing, "deviations from the normative knowledge shared in a given communicative framework". This intentional, voluntary action is directed towards a particular goal and is influenced by the social norms of the group the speaker is a part of.

It is these perspectives that are most relevant to gender-neutral pronouns. The selection and use of gender-neutral pronouns is part of a pattern of norms in the transgender community as a whole and is also used to signal deviations from normative knowledge (the idea that there are only two genders). If change is happening, it is at least somewhat intentional and is motivated by political and social concerns as well as linguistic ones.

1.3 Pronouns

1.3.1 Defining Pronouns

In the broadest sense, pronouns can be used to substitute for a noun phrase, and they are generally considered to be a closed set (Crystal 2011b). Difficulties abound with this definition, as enumerated by Wales (1996), since a pronoun's use and form can be extremely flexible. Because this dissertation is about genderqueer and nonbinary people, only personal pronouns which can substitute for a human referent are relevant.

Many languages have personal pronouns which agree in gender with their antecedents in some way. When "gendered pronouns" are mentioned in this dissertation, it means personal pronouns which have masculine or feminine grammatical or semantic elements. Gender is most common in third-person pronouns; most languages that have gendered first- or second-person pronouns also have gendered third-person pronouns (Greenberg 1963: p. 96). As such, when I discuss gendered pronouns or gender-neutral pronouns in the coming chapters, the focus will mostly be on third-person pronouns unless otherwise specified.

What does it mean for a pronoun to have gender? The concept will be discussed in much more detail in the next chapter, but here is a brief introduction.

Traditionally, gender is a type of agreement class characterized by distinction between categories such as masculine, feminine, and neuter Crystal 2011a. In languages with grammatical gender, all items in the agreement category will have a gender assignment (Corbett & Fedden 2016). For example, Spanish noun phrase*la nariz* 'the nose' is feminine and *el teatro* 'the theater' is masculine. References to the gendered entity will then have to agree with the entity – for example, in Spanish one would have to use a feminine pronoun to co–index *la nariz*. In most languages with grammatical gender of this type, there is a strong degree of arbitrariness, especially in inanimate objects (French *le nez* 'the nose' is masculine, for example).

But in languages with grammatical masculine and feminine categories, a masculine pronoun is usually used with men and a feminine pronoun is usually used for women. That is to say, there is a semantic core of meaning that associates the masculine with men and the feminine with women, but the system is primarily about the morphosytactic agreements between items (Corbett & Fedden 2016: p. 521). In languages with what is often called naturalistic gender, including English, this semantic core is all that remains. There is little to no arbitrariness in the use of the masculine and feminine; they refer only to actual gendered entities, such as people and animals. In other words, the category of gender is semantic, and interacts very little with the syntax. Either way, there is some link between the category of human genders[3] and that of gendered pronouns.

The existence of people who are neither male or female – and thus who may not be describable using either masculine or feminine language – troubles many existing notional-gender systems. In languages where there is no animate neutral pronoun to refer to humans but where there is a population of genderqueer/nonbinary people who view themselves as neither male or nor female, there is a mismatch between the number of notional genders in the pronoun system and the number of genders in the social landscape. This is the situation of interest in this dissertation. The act of creating new pronouns[4] in order to bring the language's notional gender system in alignment with the social landscape is the topic under discussion.

I distinguish between this kind of gender-neutralization and the gender-neutralization that happens in indefinite situations. The phrase *gender-neutral pronouns* simply refers to pronouns that do not have any kind of morphological

[3] In the literature, this is sometimes called *sex*, not gender. This practice is critiqued in Conrod (2020) and McConnell-Ginet (2014).

[4] In many languages, other types of morphology, such as adjectival declension, are as important or more important than pronouns. That is not the focus of this dissertation, but it will be discussed when languages other than English are analyzed.

or semantic gender-marking. A subset of gender-neutral pronouns are *epicene* – gender-underspecified pronouns used indefinitely. This dissertation follows recent work such as Conrod (2020) and Truong (2019) in using *epicene* to differentiate indefinite, gender-unspecified uses of a pronouns from other uses. Another subset of gender-neutral pronouns are what I will call *genderqueer*.

I chose *genderqueer pronouns* as the umbrella term for pronouns used by gender-diverse people to express their experience of gender. I use this term because it serves as a statement of intent for the pronouns in question, and to have structural similarity to *gender-neutral pronouns*. The pronouns used by gender-diverse people are often gender-neutral, but not always. For example, a drag queen using *she* can also be an instance of genderqueer pronouns[5]. What differentiates genderqueer pronouns from other pronouns is their intentional disruption of existing gender systems (as compared to epicene pronouns, which do not disrupt the gender system, but instead avoid a pragmatically incorrect assignment of gender to an unknown-gender referent). The aforementioned drag queen's *she* is both a gendered and a genderqueer pronoun, whereas a feminine cisgender woman's *she* is gendered but not genderqueer. The pronouns that I am studying are, by definition of their association with people whose gender does not fit into the gender binary, used with intent to disrupt the he/she=male/female binary system in some way and create space where none previously existed. For this reason, they are quite literally *gender-queer* in intent.

[5] See Conrod (2018) for an analysis

1.3.2 Pronoun Change

As previously stated, the pronoun is generally held to be a closed class, with very little innovation occurring in this grammatical category over time (Abney 1987: pp. 64–65) (T. B. McArthur & R. McArthur 2005) (Schwartz 2008) (Crystal 2011b). But even the most conservative area of a language will admit some change eventually. Languages whose pronoun changes have been studied include Brazilian Portuguese, which is developing a new first-person plural *a gente* (Zilles 2005); Israeli Sign Language, where a case-marked pronoun that has grammaticalized from the noun 'person' (Meir 2003), and French and German, where indefinites *on* and *man* (both derived from words meaning 'man') are becoming first-person pronouns (Helmbrecht 2015). German had an iden-

tity pronoun, *dieselben*, which arose in the 18th century and declined in the 19th (Heine & Song 2010: p. 127). The classical Chinese system of five first-person pronoun forms has been reduced in Mandarin to only two as the functions of the others are no longer socially present (Lai & Frajzyngier 2009). Japanese has developed a still-grammaticalizing pronoun system with items recognizably drawn from nouns and demonstratives (McCraw 2011: p. 42). Most only began to be used as first-person pronouns in the period from 1200-1600, with the exception of *boku*, which was adopted in the period 800-1200 (Ishiyama 2019: p. 10). Pronoun change, while often very slow, certainly does occur.

English itself, of course, has seen various pronoun changes over the course of its written history, such as the loss of *thou* and the borrowing of *they*. The loss of *thou* accompanied a loss of number and formality distinctions in the second person, reflecting significant changes to the pronoun structure of the language, while the adoption of *they* constituted the addition of a new pronoun. English also gained reflexives, grammaticalizing them from a combination of existing personal pronouns and an intensifying adverb *self* (König & Siemund 1997). More recently, paralleling the French and German examples above, some inner-city UK English dialects of English have *man* becoming a first-person pronoun (Cheshire 2013). Outside the sphere of genderqueer and nonbinary language, the pronoun *yo* was recorded in use by schoolchildren in Baltimore, apparently unmotivated by political concerns (Stotko & Troyer 2007). Changes to English pronouns, including in the direction of gender-neutral third person pronouns, are precedented.

General overviews of pronoun grammaticalization include Heine & Song (2011) and Heine & Song (2010). These works discusses the sources of personal pronouns, identifying the main ones as follows Heine & Song (2010: p. 121):

1. Nominal concepts: a noun is grammaticalized into a pronoun; nouns to which this happen can include terms for human beings as a whole, professions, kin relationships, and social status distinctions (121-122).

2. Spatial deixis: Demonstratives are extended into pronouns (125).

3. Identifiers: Reflexives, intensifiers, and identity pronouns become generalized as personal pronouns (126).

4. Pluralization/Plurification: Plural pronouns are used for singular address (129).

5. Shift in deixis: A definite noun phrase becomes a second-person pronoun, or a generic human noun or impersonal pronoun becomes a first-person pronoun (134).

This classification focuses on cases where new personal pronoun categories are entering the language, as would be the case with the gender-neutral third-person animate in English. For third-person pronouns, Heine and Song find that demonstratives, nominal concepts, and intensifiers are common sources (Heine & Song 2011: p. 595). In the second-person, the authors also find that plurification is a common strategy for creating new pronouns (609). If we were to classify gender-neutral language according to these strategies, we might call singular *they* 'plurification' (though the authors do not address it in the third person) and nounself pronouns would be derived from nominal concepts. This would still leave forms like ey/em/eirs, which directly derive from existing pronouns with some modification, to be categorized.

Additionally, Helmbrecht (2015) has classified non-prototypical uses of personal pronouns, which represent, if not ongoing or recent pronoun change, at least pronoun variation. The article points out the tendency for third person plurals to take on an indefinite singular meaning, as *they* has, and for third person plurals to become respectful second-person singulars (plurification, in Heine & Song (2011) terms (180). The authors conclude that previous research on pronoun grammaticalization lacks focus on pragmatic extension of one pronoun to new contexts, and that "not much is known on the process of the integration of future pronouns into an already existing pronominal paradigm" (184). Gender-neutral English pronouns would fit into both of these gaps. Singular *they* represents a pragmatic extension of the type the authors discuss, and neopronouns involve the integration of new pronouns into an existing paradigm.

If gender-neutral pronouns are instances of naturalistic pronoun change, we should expect to see their development over time fitting into these kinds of typologies of pronoun change.

1.4 People

1.4.1 Who are Nonbinary and Genderqueer People?

Western society has a fairly strict traditional gender system. In this system, people are born either male or female as dictated by their genitalia, and continue to be the same gender throughout their lives. A female person is expected to be feminine, and a male person to be masculine. In practice, of course, there is a great deal of variation that doesn't map to this plan. The first item to discuss is that sex and gender are two different things even though they are often conflated, and the other is that neither sex nor gender is necessarily as binary as generally assumed.

Typically, *sex* is used to refer to physical characteristics, such as genitals, chromosomes, and secondary sexual characteristics (DuBois 2017). Sex is often considered binary – one is either 'male' or 'female' – but sexual characteristics actually occur on a spectrum (ISNA 2008). Characteristics that do not conform closely to either extreme of the spectrum are often considered *intersex*. Intersex babies are sometimes given surgery at birth to more closely match normative male or female sex characteristics (ISNA 2008).

Gender, on the other hand, describes social characteristics. A person's gender has to do with how they view their identity and their role in society (DuBois 2017). Gender is proverbially performative, as most famously articulated by Judith Butler's seminal 1990 text *Gender Trouble*. The ways that we dress, talk, move, and act can all be impacted by our social understanding of our own gender. Gender, being a purely social property, does not exist outside of performance and self-understanding.

Western society typically links sex and gender through assignment of gender at birth/[6] However, there are many people whose sex and gender do not normatively align. Intersex people often have sex characteristics that are considered nonnormative for men or women; however, most of them still identify as men or women (Harper 2007). Transgender people are typically assigned one gender at birth based on sex characteristics, but later discover that their gender does not match that assignment. [7] Thus, there are women (both intersex and transgender) who have sex characteristics that are normatively considered

[6] The process of deciding whether a baby is a boy or a girl based on physical characteristics. "Assignment" is often formalized by paperwork, like birth certificates, and social practices, like choosing a masculine or feminine name.

[7] This is what it means to be transgender, as opposed to cisgender. A cisgender person is someone whose internal sense of gender is the same as their assigned gender at birth.

"male" and men (both intersex and transgender) who have sex characteristics that are normatively considered "female".

Although they do not fit tidily into the sex binary or the sex-gender mapping, transgender and intersex men and women have binary *genders*. They consider themselves either men or women, not both, neither, or something else. A nonbinary or genderqueer person, on the other hand, is someone whose internal sense of gender is not fully and exclusively male or female. They are not necessarily intersex [8], because genderqueer/nonbinary is a gender identity, not a description of sex characteristics. By definition, they are never cisgender, because babies are assigned either male or female at birth. Thus, they may be considered part of the transgender umbrella, although many do not consider themselves 'transgender' due to the term's popular association with the process of medical transition [9] (Darwin 2017: p. 325).

[8] Though of course genderqueer/nonbinary intersex people do exist, just as intersex men and women do.

[9] The process of changing physical characteristics by hormone replacement therapy and surgery.

The approximate number of genderqueer/nonbinary people in the general population is still unknown, and estimates vary quite heavily based on how the question is framed and who is being asked (Richards, Bouman, Seal, et al. 2016). Whether the question is phrased to capture discomfort with gender roles or whether it asks about specific gender identities has a large impact on response numbers. The number of people who openly identify as genderqueer or nonbinary is, however, probably not large. One recent estimate suggests around 1.2 million people in the United States, 11% of the general LGBTQIA+ population and 32% of the transgender population, use the term *nonbinary* or a similar term such as *genderqueer* to describe their gender (Wilson & Meyer 2021). The number of people who have some ambivalence or discomfort with gender roles or gendered expectations is, of course, likely to be much larger, though again hard to determine with any degree of accuracy. As Richards, Bouman & Barker (2017) put it, people who identify as nonbinary or genderqueer are less common than those who experience themselves in nonbinary ways (6). The most important takeaway is that the overall numerical population of genderqueer and nonbinary-identifying people is small. This will have practical and political implications for the community, as will be shown later.

Demographically, the genderqueer/nonbinary community is often considered to be very young, with the identity becoming more common among younger people in recent years (Richards, Bouman & Barker 2017: p. 6). This is not wholly untrue; Wilson & Meyer (2021) finds that 76% of nonbinary and gen-

derqueer adults are between 18 and 29 years old. Nevertheless, the perception that this identity only belongs to young people erases the history of genderqueer/nonbinary activism and identification in trans spaces going back to the 1990s at least (Yeadon-Lee 2016: p. 20). The proportions of people assigned male or female at birth in the genderqueer/nonbinary community are again not well-understood; broadly speaking, however, the most online-active and visible under 30 crowd of genderqueer/nonbinary people leans numerically towards people assigned female at birth and the 30+ crowd leans numerically towards people assigned male at birth (Yeadon-Lee 2016: p. 23). This, of course, does not capture those who are less visible or less active in genderqueer/nonbinary spaces, which tend to be heavily online. Likewise, the nonbinary/genderqueer communities most visible and active are often majority-white, but again this does not capture those less visible (Darwin 2017: p. 6). The nature of the nonbinary/genderqueer identity – invisible, small in number, and stigmatized – means that it is very difficult to make any strong statements about the community's demographics.

I have been using genderqueer/nonbinary as a single phrase unit. The terms themselves have slightly different histories, and slightly different connotations. *Genderqueer* originated in the broader queer community and is first documented in 1995 (McNabb 2017). Transgender activist Riki Anne Wilchins used the term in the gender liberation activist newsletter *In Your Face* (Wilchins 1995):

> It's about all of us who are genderqueer: diesel dykes and stone butches, leatherqueens and radical fairies, nelly fags, crossdressers, intersexed, transexuals, transvestites, transgendered, transgressively gendered, and those of us whose gender expressions are so complex they haven't even been named yet.

From the beginning, *genderqueer* has been political, and has described a broad umbrella of people whose gender identities and expressions were nonnormative, subversive, or "queer" in some way.

On the other hand, *nonbinary* is a word that is both more recent and less linked to queer politics. It arose as a simple contrast to *binary* in the gender sense: there were binary genders and then there were genders that weren't binary, i.e., non-binary. Its etymology is more difficult to track due to the fact

that "non-binary" has other meanings outside the realm of gender (such as in computer coding). However, it seems to arise later than *genderqueer* does, perhaps sometime in the 2000s. The late '00s is when it begins to make its way into literature about or for nonbinary/genderqueer people, and this uptake is reflected in the fact that "nonbinary gender" only begins to appear in Google Ngrams in 2008 (S. Bergman & Barker 2017: p. 32). It is generally used as a very broad umbrella term, simply descriptive of all genders that are not binary. In much of the literature produced in the '10s it is used in a more specific identity sense, serving for many people as their only gender label.

The overlap and contrast between the two terms is complex. The definitions are often similar, and many people identify as both interchangeably. But some people use only one or the other, and they may have different connotations in different contexts. For instance, some consider *nonbinary* a broader term than *genderqueer*, with genderqueer being a specific identity within nonbinary (Darwin 2017: p. 324). But genderqueer in its original usage was an umbrella term for everyone whose gender doesn't fit tidily into the gender binary – encompassing both nonbinary gender identities and gender-nonconforming gender presentations – and some still use it that way as well. Another significant problem in choosing one over the other is that *genderqueer* is older and is used as the main term of self-identification in sources up to about the early '10s, while *nonbinary* is significantly more popular and widely-used within the community now (Lodge 2020a). Using genderqueer exclusively would be inaccurate for the majority of people in the community now, but using nonbinary exclusively would be inaccurate for the majority of the community's history. Because of this conflict, I decline to default to one over the other. I will refer to this group, going forward, as genderqueer/nonbinary (both alphabetically and chronologically) or GQNB.

Both words can serve as single identity terms; someone may choose to describe their gender exclusively as genderqueer and/or as nonbinary. However, they are also both frequently used as umbrella terms, and many people under the umbrella have multiple identities (Darwin 2017: p. 324). A GQNB person may also consider themself any of a variety of other identities: agender, genderfluid, genderflux, demiboy, demigirl, bigender, trigender, pangender, androgyne, third-gender, mavrique, neutrois, gender-neutral, genderless, and many, many others[10]. A GQNB person might be a man or a woman, and also

[10] There is no formal database of nonbinary identity terms, but all the listed genders are attested at community-generated resources such as Nonbinary Wiki and Gender Wiki

something else; or they might be both a man and a woman at the same time; or they might not identify with manhood or womanhood at all. They might have multiple genders, or none, or they may shift between genders. In both cases, the point of the terms is to describe a variety of genders, not a single one. They are not parallel to the terms "man" and "woman" which are generally spoken about as if they are single genders, even though individual men and women may have very different experiences of their gender. The terms "man" and "woman" are also associated with gender roles, while GQNB genders have no social gender role.

GQNB identities grew from the contemporary Western queer community. As such, there are people whose gender is not binary who may not identify with either of these terms. Some of these are traditional genders in systems that exist outside the contemporary Western binary. Italy, the Balkans, India, Polynesia, and many places across the Americas are just some of the regions that have, at one point or another, had more than two gender roles in their gender systems (McNabb 2017: p. 40). The Western history of gender has also been more complex than necessarily assumed; people with same-sex desire in the past often had complicated gender positions (Richards, Bouman & Barker 2017: p. 13). Additionally, contemporary gender and sexuality freedom movements have not always used the same terminology. In North American Indigenous gender and sexuality activism, the term *Two-Spirit* is used as an intertribal term for indigenous gender and sexual identities (McNabb 2017: p. 40). The term was developed in 1990, so the conversation on two-spirit identities happened chronologically parallel to the conversation on genderqueer identities, but to fold two-spirit people into genderqueerness would be an act of linguistic colonialism. Similar terms exist in other traditions; for instance, the term takatāpui is used to describe Maori people with diverse nonnormative genders and sexualities (McGlashan & Fitzpatrick 2018: p. 7).

To avoid ironing out these different experiences, when I refer to people who are not necessarily part of the contemporary GQNB community but who are also not binary-gendered, I will use the term "gender-diverse" (following Byron et al. (2019)). This is a broad and vague umbrella term that can refer to anyone whose gender does not conform to normative expectations in some way. By using this broad umbrella term, I can capture the relevant characteristics they share (not being fully served by the gender binary) without imposing

the modern Western queer community's specific categorizations. When I use gender-diverse, I am specifically avoiding assigning any particular identity to the people I am discussing; this is not a synonym for genderqueer/nonbinary. That said, the conversation on gender-neutral pronouns in European languages, especially English, has largely been shaped by GQNB-identifying people. As such, GQNB-identifying people will be the main focus of the dissertation.

Among many gender-diverse people, and especially in contemporary Anglo GQNB communities, pronouns bear a special significance. In English, they are one of the few areas of language where gender is almost unavoidable. Because third-person pronouns are gendered in English and because third-person pronouns are important parts of English grammar, it can be difficult to refer to someone without gendering them in some way. Many GQNB people do not wish to be called *he* or *she*, as it may feel inaccurate for them. Others may use *he* or *she*, but their appearance may be contrary to normative assumptions about what a *he* or a *she* looks like. To combat this, this community has established a new social norm for talking about what pronouns they like to have used for them.

The pronoun talk norm has become sufficiently central that websites such as mypronouns.org (Sakurai 2017) have been established to explain it. The basics of pronoun talk are very simple: two people meet, and in introducing themselves, they exchange pronouns, very much as you would exchange names with a person you have just met. Because of the centrality of online organization to GQNB communities, additional norms exist online. A person may choose to put their pronouns in their bio, about page, forum signature, email signature, or other similar place, rather than stating them directly upon introduction. Although I am speaking only from personal experience and cannot provide an academic source (though journalistic sources will be provided below), respecting someone's pronouns of choice is a very strong social norm in the GQNB community, and failing to do this is generally considered rude. If a person's pronouns are not listed somewhere on their internet presence, the polite thing to do is refer to that person as (semi-indefinite, as will be shown later) *they* rather than assuming.

Pronoun talk has also received considerable press coverage as broader society becomes increasingly aware of transgender people in general. The norm is sufficiently well-established that general guides to the respectful treatment of

transgender people or GQNB people usually include a section about pronoun talk: for a small sample, see GLAAD (2013), National Center for Transgender Equality (2016), Editorial (2019), (Brauer & Schondelmayer 2021), Wamsley (2021). Perhaps because of increased knowledge of this norm, the mere concept of choosing or asking about pronouns has become a touchpoint for stance on transgender and GQNB issues. In the first six months of 2021 alone, the following pronoun-related controversies made it into the news.

- On Tucker Carlton's Fox News segment, Tulsi Gabbard said that the U.S. House of Representatives' policy change toward gender-neutral language (including the use of generic *they*) "denies the existence of women" (Bollinger 2021).

- A professor at Shawnee State University repeatedly misgendered a transgender female student, referring to her as *he* and *Mr.*, citing his Christian beliefs (Flaherty 2021).

- Laura Ingraham claimed on another Fox News segment that a website with a grammar lesson on they/them pronouns is "insidious" and "takes the kids away from their family setting, or maybe their religious values" (Browning 2021).

- The Department of Housing and Urban Development told the College of the Ozarks it was required to use students' requested pronouns, in response to the college's stated policy of only using "pronouns which reflect an individual's biological sex"; in response, a blog on Catholic culture claimed that the Biden administration wanted to "annihilate Christian colleges". The author wrote, "Practically speaking, serious learning is not possible if teachers and students must constantly check every word to ensure only acceptable pronouns are used. Does each "trans" student get to pick personal pronouns? What if the preferred pronouns change mid year?" and also compared this directive to the policies of Nazi Germany (Marshall 2021).

- In response to University of Oklahoma's decision to have gender-neutral homecoming royalty, the Oklahoma Council of Public affairs published an editorial claiming "Because the gender tyrants start with language,

their compulsion starts with pronouns. James wants to choose his pronoun—he wants to be referred to as "she" or "zhe" or even "judy." If James feels he is really she, you ought to call him by his preferred pronoun. It isn't merely good manners; you will actually inflict harm on James if you don't call him a her. James has a right, don't you know, to be called by the pronoun of his choice." and comparing pronoun talk to George Orwell's 1984 (Randall 2021). The article was titled *Oklahoma universities are teaching students to lie*.

- For Pride Month 2021, Kellogg released a special limited-edition Together With Pride cereal. An article in The Western Journal wrote that this was "sexualizing cereal boxes" and that the space on the box where children could write their pronouns was "the most disturbing feature" (Favocci 2021).

- Leesburg Elementary School teacher Byron Cross was put on administrated leave for refusing to use transgender students' pronouns, then reinstated. Cross stated, "I'm a teacher but I serve God first, and I will not affirm that a biological boy can be a girl and vice versa because it's against my religion, it's lying to my child, it's abuse to a child and it's sinning against our God" (Burke 2021).

- An article in Christian Daily said that North Korean Yeonmi Park was "taken aback and perplexed by the problems around gender and language, with every class requiring students to declare their chosen pronouns, which she found shocking and confusing". The article compared this use of chosen pronouns with totalitarianism in North Korea (Saliong 2021).

- In the Wall Street Journal, an op-ed entitled "When Asked 'What Are Your Pronouns,' Don't Answer" called pronoun talk part of a "regressive ideology" that claims gender-nonconforming people don't exist. Pronoun talk, along with other cultural and medical issues surrounding transgender people, are called "gender ideology" and compared to astrology (Wright 2022).

Baron (2020a) records how even the word "pronouns" has become stigmatized in trans-unfriendly spaces, citing examples such as a tweet of Elon Musks

that reads "pronouns suck", a button that says "F*ck [sic] your pronouns", and a reddit post that says "Nobody in here is using pronouns and we aren't furries". In this discourse, *pronouns* refers not to the grammatical concept of pronouns in general (*nobody*, *here*, and *we* are all pronouns of some sort), but to the concept of pronoun talk norms.

Hekanaho (2018)'s formal study of attitudes towards gender-neutral pronouns echoes these anecdotal accounts. In this study, 40% of cisgender men and 27% of cisgender women participants [11] found genderqueer singular *they* unacceptable. More conservative participants unsurprisingly found it unacceptable than liberal participants, as did more participants who had no transgender friends or relatives (8). Participants who found it unacceptable cited number arguments the most, as well as calling it awkward, weird, or generally grammatically incorrect (13). Genderqueer *ze* was considered more unaccaptable, with 78% of cisgender men and 46% of of cisgender women participants [12] finding it unacceptable (11). 51% of LGBT+ people and allies and 93% of participants who were not LGBT+ people or allies found *ze* unacceptable (12). Participants who disapproved of this neopronoun said most of all that it was "not part of English", or that it was weird, alien, awkward, or stupid (14).

[11] Compared to 3% of transgender participants.

[12] Compared to 4% of transgender participants.

All of this is to show that people with negative attitudes to transgender and GQNB people often receive pronoun talk and nonnormative use of pronouns as deceptive, aggressive, authoritarian, dangerous, or destructive – to language, to religion, or to families. Transgender people's pronouns, no matter what they are, carry an extremely heavy burden of stigma. This is even more pronounced for GQNB people who use innovative pronouns, where the issue of "grammatical correctness", awkwardness, or strangeness is often raised.

1.4.2 Genderqueer/Nonbinary Identity

Studies of GQNB identity, while still scarce, do exist. Two recent texts in particular, McNabb (2017) and Richards, Bouman & Barker (2017) document GQNB people's history and identities in activism, law, psychology, and medicine. These volumes will be referenced throughout the dissertation, as they are two of the most comprehensive sources of information on GQNB identities available.

Corwin (2009) is a relatively early attempt at describing the linguistic practices associated with GQNB performance of gender.[13] This study was a series

[13] Corwin refers to the people as *genderqueer* and to the identities as *nonbinary genders*.

of interviews with 15 genderqueer individuals from a limited social network in Northern California. In addition to other practices, such as affirming renaming of body parts, Corwin documents a specific pronoun set, zhe/their/zhemself[14], which is used by the research population.

This is one of the earliest specifically GQNB academic documentations of neopronouns in real-world use, but they appear in research on the broader trans community earlier. Ekins & King (2006), for instance, documents Christie Elan-Cane's use of per/pers/perself pronouns[15]. Per uses these pronouns to express that per is an ungendered entity, not a woman or a man (159).

Additionally, a great deal of research on GQNB people has also focused around online communities. With the relatively small numbers of GQNB people in any given population, face-to-face interactions with other GQNB people may be difficult to achieve in most locations. The internet does away with this problem by allowing people all over the world to interact over shared experiences, helping GQNB people connect with each other and build community more easily (McNabb 2017: p. 24). It is perhaps no coincidence that the GQNB movement has risen with the availability of the internet.

Yeadon-Lee (2016), for example, examines the narratives of GQNB identity on 115 blogs and 7 forums. They document label play[16], negotiation of identity [17], and intergenerational discussion of what it means to be nonbinary [18]. The article also captures the lack of consensus on the difference between genderqueer and nonbinary, with one poster describing nonbinary as equivalent to "androgyne" (28) and another describing it as "a political statement and declaration of gender freedom" (29). People in these forums also reflected on the mixed blessing provided by a multitude of labels, which could feel freeing or confusing (29). In general, the study reinforces the fluidity and unfixedness of current GQNB terminology and identity.

Darwin (2017) documents the practices of the reddit.com community r/Genderqueer, including fashion trends, narratives of gender, and terminology. Although all participants in the community obviously had some identification with the word genderqueer, because they gathered in a community with that name, they had different understandings of the label, from "genderless" to "all genders simultaneously" (8). Some participants also highlighted their dissatisfaction with genderqueer as a label. As Darwin puts it, "they associate the word queer with political connotations and/or queer sexuality, neither of which apply

[14] Subject/possessive/reflexive. The oblique is not clear from the article.

[15] Derived from 'person'. More on this set in Chapter 2

[16] "I'm a non-girl; an androgyne; a feminine boy; an FtA or even FtM; queer or genderqueer or transmasculine." (Yeadon-Lee 2016: p. 25)

[17] "I realised that I had access to all of the gendered qualities and experiences that I desired if I let go of binary thinking and an illogical need to conform or fit with the expectations of others" (Yeadon-Lee 2016: p. 26)

[18] "I've always thought many more people had nonbinary feelings than will admit it, and its nice to see the pure honesty in these young people, expressing themselves." (Yeadon-Lee 2016: p. 28)

to them". The study also documents the ways that GQNB people use clothing, haircuts, makeup, body-shaping items, and body language to perform their gender in photographs. It also briefly makes note of pronouns, observing singular *they* as the most popular option and neopronouns ("such as ze/hir, ve/vir") as less popular but still present (13).

Work on specifically GQNB gender-neutral pronouns in English includes Meehan (2013), Miltersen (2016), Indhiarti (2018), Hekanaho (2018), Hekanaho (2020), and Baron (2020b). These sources will be discussed further in the following chapters, but Meehan (2013) records neopronouns from 2013 using semistructured interviews; Miltersen (2016) documents nounself pronouns; Indhiarti (2018) focuses on singular they; both of Hekanaho's works revolve around reception and stigma in both epicene and GQNB use of pronouns; and Baron's focus is on the history of the forms in general, not on the genderqueer use. This dissertation aims to follow Hekanaho and Baron by examining the history and usage of all gender-neutral pronouns in English. However, it diverges from both by focusing on genderqueer pronouns only, rather than investigating the epicene and genderqueer together. Unlike Baron, it focuses on contemporary use of these forms, and unlike Hekanaho, it focuses on production and processing rather than acceptability and attitudes.

1.5 Dissertation Roadmap

1.5.1 Research Questions

As previously discussed, genderqueer pronouns have often been considered an imposition on language in general or English specifically. Hekanaho (2020) records this attitude in their own dissertation on nonbinary pronouns. One participant is recorded as saying "I think [nonbinary pronouns are] largely a force of identity politics trying to manufacture a grammatical norm in English.", an attitude that sums up many of the feelings that many cisgender participants expressed. Nonbinary-negative cisgender participants said that genderqueer pronouns were "unnatural", "not English", "made-up" or "grammatically incorrect" (164). In the experimental task that is the subject of Chapter 3, one participant who seemingly took the survey purely to express their displeasure said "Language does not work that way." The idea that genderqueer pronouns

are manufactured, unnatural, and fake is one that repeatedly reoccurs in sources that disapprove of GQNB genders. It is in harmony with a general tendency to consider transgender people's lives and identities inauthentic and deceptive (Billard 2018) (Ciszek 2020) (DeGagne 2021) (Totton & Rios 2021).

But is it true that genderqueer pronouns are unnatural or not part of English? The assumption (although it's rarely phrased this way by nonlinguists) is that, since pronouns are a closed category, attempts to add new items are futile, because most people simply will not be able to use them. If that is so, one would expect processing and production of all these pronouns to suffer considerably, even among people who use them regularly.

The guiding research question for this dissertation is: *do* gender-neutral pronouns follow naturalistic processes of language use and language change? Two experimental tasks are aimed at establishing this.

As previously stated, I will primarily be focusing on English gender-neutral pronouns. This is because English gender-neutral pronoun discourse has flourished since the 1990s, and there is a great deal of diversity to discuss. Such a study, however, would be remiss not to include any crosslinguistic element at all. When I discuss strategies for gender-neutral language in Chapter 2, I will have a separate section for languages other than English, and when I discuss the exploratory survey in Chapter 3, I will discuss bilingual participants' behavior in other languages as well.

1.5.2 Introduction to the Tasks

I defined this dissertation as being about the development and use of genderqueer pronouns. There are a several aspects to the word "use" in this context. When gender-diverse people talk about which pronouns they "use", they mean the pronouns they wish to have used for them. If I say "I use they/them pronouns", what I mean is that I am requesting that people use *they* when referring to me. But when linguists talk about pronoun "use", they usually mean the actual utterance of these forms by speakers of the language. I aim to investigate both sides of this duality in the dissertation.

The first task, therefore, is aimed at understanding which pronouns gender-diverse people adopt for themselves and why, as well as when, where, and how they engage in pronoun talk, and how often their pronouns get respected. This

is the GQNB-focused side of the question: how do GQNB people experience their own pronoun use?

This first task is a survey taken by 1,720 participants asking in-depth questions about participants' choice of pronouns (in English and, for multilingual participants, any other languages), reasons for selection of their pronouns, how they ask for their pronouns to be used, where they ask for their pronouns to be used, and whether people actually respect their pronouns.

The second task is aimed at understanding the more linguistically conventional end of "use": how do these pronouns perform when actually embedded in utterances? If, as is sometimes posited, adoption of these forms is difficult to impossible, it should be much harder for cisgender people in particular to understand or reproduce these forms in utterances. Moreover, all genderqueer forms should be equally difficult regardless of how similar they are to existing English pronouns. The task aims to examine how users of a lingusitic system experience gender-neutral pronoun use.

The second task is a processing and production study with 90 participants: 30 GQNB, 30 binary-gendered people who are personally familiar with at least one GQNB person, and 30 binary-gendered people who don't know any GQNB people personally. Participants are asked to read the pronouns through a self-paced reading task as a way of tracking processing, and to write the pronouns in a cloze test as as way of tracking production.

Together, these two tasks provide an understanding of the interface between GQNB and cisgender pronoun "use": what the expectations from GQNB people are, and how both they themselves and cisgender people fulfill those expectations. This allows for a deeper understanding of how genderqueer pronouns function on a linguistic level.

1.5.3 Outline

Following the Introduction here in Chapter 1, Chapter 2, *Gender-neutral Pronouns*, outlines the history of epicene neutral forms and their journey into genderqueerness, as well as reviewing previous work on this topic. The chapter demonstrates that singular neutral animate indefinite pronouns in English are in competition. There is singular they, which is the most common option in colloquial speech; combined forms like *he/she*, which are often used in academic

English; and epicene *he*, which was in strong competition with singular *they* when it first emerged. There are also rarer items like neopronouns and neutral *she*, which are not serious competitors as they do not see much use. In this chapter I document the emergence of the genderqueer pronoun from the epicene using primary sources, and show that there is competition in the genderqueer space as well. Like epicene pronouns, *they* is the most popular. This is probably related to its popularity as an epicene pronoun. Unlike epicene neopronouns, genderqueer neopronouns do see some use.

Chapter 3, *Mapping the Space of Genderqueer Pronouns*, discusses the results of the usage survey. In a way, these pronouns are a "sociolect" belonging to GQNB people that they use to perform their gender. However, third-person pronouns as a category have a specific functional purpose in English that means, for this gender expression to succeed, the "sociolect" must be exported to non-GQNB people. This is where the complications come. In this task, I found that there is a perception among GQNB people that gender-neutral pronouns are difficult for cisgender people to use. Because of this, the process of requesting genderqueer pronouns is extremely responsive to social environment. In this respect, genderqueer pronouns have pragmatic concerns that govern their use, much like T/V pronouns do, in this case related to agency over who is in a space. Materials from this chapter were used to determine what neutral pronouns to include in Chapter 5's experimental task.

Chapter 4, *An Analysis of English Neopronouns*, delves further into the structure and function of neopronouns specifically. It reinforces a finding from Chapter 3, that especially innovative items have not died out yet because they are used for more individualistic meaning and identity-creation. In other words, rather than being in full competition, items have specialized, as happens often with lexical variation. I found that there are, however, restrictions on how far this individualistic item-creation can go; most pronouns still stick to declensional structures similar to English, and the items are usually one or two syllables. These restrictions limit the forms of neopronouns, and possibly make them easier to use. Materials from this chapter were used to develop the nonce pronouns of Chapter 5's task.

Chapter 5, *Genderqueer Pronouns in Use* discusses the results of the processing/production task. For gender-neutral paleopronouns, there was no statistically significant cost to processing and participants mostly made few mistakes,

aside from "misgendering" type where they refused to use the requested pronouns. For neopronouns, there was a small processing cost, and participants were less accurate at writing the pronouns. A set of nonce pronouns invented not to follow the rules of typical neopronouns, however, had a much larger processing cost, and were extremely difficult for participants to write. This suggests that the typological constraints discussed in Chapter 4 exist for practical reasons. Additionally, in the writing task, familiarity with GQNB issues increased participants' likelihood of correctly filling in the blank with the the neutral pronouns. Participants, therefore, are able to learn new pronouns, and their attitudinal characteristics likely link to their willingness to do so.

Chapter 6, *Conclusion* links the results of both experimental tasks to contemporary discussions surrounding language change in general and pronominal change specifically. We should understand the process of genderqueer pronouns as being similar to other forms of language change (and pronoun change specifically) that fill a lexical gap. Participants who learned to use gender-neutral pronouns past the age of acquisition (as would be the case for most participants over 18) provide evidence for lifespan change. Within the community, GQNB people participated in an almost entirely unnoticed change from below: singular *they* eclipsed neopronouns for general purposes. Neopronouns have, instead, become specialized for particular pragmatic purposes. This is probably at least partly because *they* is easiest on a production/processing level. That gender-neutral pronouns undergo common linguistic processes such as competition, specialization, and learning over time, and that they fit into typologies of pronominal change, suggests that it is not true that they are not part of the English language.

Chapter 2

Gender-Neutral Pronouns

2.1 Gendered Pronouns

Gender as a feature of pronouns is far from universal. In Siewierska (2013), 121 out of a sample of 378 world languages have gendered independent personal pronouns of some kind (only 2 of these do not have them in the third person). This is about 32% – about a third of the languages in the sample. As might be expected, however, certain families have much higher proportions. Gender as a feature of pronouns is common in Afro-Asiatic, Niger-Congo, and Khoisan languages of Africa, and the Indo-European family of Eurasia, especially in Europe (Siewierska 2013). English is, of course, a member of the last family. It has lost much of its grammatical gender and no longer has any morphological agreement for this feature, but gender is still hanging on in third-person singular pronouns (Siemund 2008: p. 150). Many other widely-spoken European languages, such as French, Spanish, German, and Russian, have grammatical gender in pronouns and additional morphology as well. Gender-neutral pronouns for these languages are more difficult to create because of agreement requirements. This may be part of the reason why so much pronoun experimentation has been done in English, which presents no such requirements.

The traditional third-person pronoun system of English is well-studied, and its history is well-mapped. As it currently stands, prescriptive understandings are that English has three singular third-person pronouns with a masculine-

feminine-inanimate split (he/she/it), and a plural pronoun that is unspecified for animacy and gender (they). The use of the third-person singular pronoun for an entity depends on whether that entity is a person or not. For inanimate or inhuman referents, the neuter *it* is used. For people, either *he*, for males, or *she*, for females, is used. The gender of a object is determined by the properties of the referent, rather than anything morphological about the noun itself (Siemund 2008: p. 150).

Exceptions to this tidy system have already been noted in the literature even outside the realm of GQNB language. Inanimate objects are often referred to with animate pronouns, particularly but not exclusively in the southwest of England. In this area, inanimate nouns that can be pluralized are *he*, including female animals, while abstract entities are *it* (Siemund 2008: p. 29). In Newfoundland, inanimate mobile objects are *she*, inanimate immobile objects are *he*, and abstract concepts are *it*(67). Nor are these complications limited to particular dialects. Is a dog a *he/she* or an *it* (Wales 1996: p. 141)? Is a baby a *he/she* or an *it* (Wales 1996: p. 160)? Is a ship a *she* or an *it* (Wales 1996: p. 154)? Intuition might differ based on a person's life experience, idiolect, and relationship with the referent. Animals, in particular, can get animate or inanimate pronouns depending on many factors, including how similar they are to humans and what the individual person's relationship to the specific animal is (Wales 1996: p. 141).

Most cisgender speakers go through life being consistently called *he* or *she* most of the time. But because this system references social concepts of gender, rather than morphological gender, gendered pronouns for the same referent may change if the speakers perceive the referent differently. Transgender people and gender-nonconforming people in particular are often subject to this kind of externally-controlled gender negotiation. Conrod (2019a) explores public discourse about Chelsea Manning, a transgender woman, and finds that Twitter users were more likely to refer to Manning as *he* when expressing disapproval of her politics, but within that space, considerable pronoun variation and negotiation existed. Conrod cites one tweet reading, "Chelsea Manning can change **her** name legally but **he** is still a man" and another reading "It's now Chelsea Manning not Bradley Manning, the guy had gender reassignment surgery. So now **he** is a **she**" (23). Chelsea Manning is a "she", but "the guy" is a "he" at the same time; Chelsea Manning was a "he" until she was a "she". This is, incidentally, an excellent demonstration of the ways that binary trans people's

identities are *not* viewed as binary, even when their gender identification is. A trans woman or a trans man might be seen as their identified gender, their gender assigned at birth, as having switched between the two, or as not being quite either. Pronouns shift accordingly.

Likewise, Conrod documents the use of cross-gender pronouns[19] used to insult cisgender people, like calling a boy *she* for being too feminine (Conrod 2019b: p. 173). And then there is non-malicious gender play. Some cisgender gay men use *she* in gay men's spaces to express gender non-conformity (Conrod 2019b: p. 181). Some butch lesbians go by *he* pronouns for a similar reason. Drag kings and queens may shift fluidly between pronouns, using one set for their stage persona and another for their off-stage self. In drag spaces, speakers may refer to a particular person with both sets of pronouns throughout the same interaction (Conrod 2019b: p. 182). All of which is to say that English third-person pronouns certainly reference gender, but it's not as simple as saying that men are always statically *he* and women are always statically *she*, and that all inanimate objects are statically *it*.

[19] A type of what transgender people generally refer to as *misgendering*: gendering someone in a way they do not identify with.

What, then, does a gendered pronoun reference in English? L. Ackerman (2019a) offers a framework for understanding the multilayered nature of gender. Their framework breaks the concept down into biosocial gender, which is influenced by hormonal phenotype, gender identity, and gender roles and behaviors, and conceptual gender, which is influenced by perceived gender expression (such as clothing and hairstyles) and gender role (preferences, social interaction, expectations). Likewise, McConnell-Ginet (2014) states that English gender is based on "notional gender". The idea is that so-called naturalistic gender cannot be delinked from sociocultural ideas about gender, sex, and sexuality, and when we use a gendered pronoun for someone, we are referencing those sociocultural ideas. Children referring to a boy as *she* for being too feminine are making negative statements about the boy's gender expression or gender role, his social performance of his gender. Because of ideological disagreements about where trans men and trans women "should" be placed, trans-friendly and trans-atagonistic speakers might pronoun Chelsea Manning differently depending on their opinions of her conceptual/notional gender. Gender non-conforming men and women might use the other binary gender's pronoun in order to reference concepts from that gender and perform femininity or masculinity.

It is very well-established in traditional grammar that third-person pronouns in English reference gender, but the reference is semantic rather than grammatical, as Balhorn (2004: p. 86) among others put it. But Bahlorn links the concept to "gender, or sex", conflating the two. This is a frequent issue in traditional linguistic analyses of gender (Conrod 2020: p. 6). As the examples of drag pronoun play and transgender pronoun negotiation show in Conrod (2019b), L. Ackerman (2019a), and McConnell-Ginet (2014), sex is not the main targeted reference in gendered pronouns. Instead, it is how a person's gender is perceived in a situation, which links to how people situate them within the gendered system of their society. This is all very well for third-person reference where a person's gender is both known and binary. Problems arise in two situations: first, when a noun phrase is underspecified for gender or when a person's gender is not known, and secondly, in situations of gender diversity.

2.2 The Indefinite Epicene

2.2.1 Framing Indefiniteness

Indefinite reference is one situation where gendered pronouns become difficult to use. Definiteness and indefiniteness have been much-discussed within semantics literature. Whether something is definite depends on several components. Bolinger (1977) suggests that the degree to which something is known or unknown determines its definiteness. Heim (1982) says that indefinite NPs are used to introduce new variables, while definite NPs are used to refer to variables that have already been introduced. Abbott (2003: p. 147) sums up the factors that go into definiteness vs. indefiniteness as follows: uniqueness vs. non-uniqueness, familiarity vs. novelty, strength vs. weakness, specificity vs. non-specificity, noting that each factor "has a foundation in intuition, as well as some degree of grammatical effect". Because there are several potential conditions that must be fulfilled to make something definite, definite-and-indefinite are gradient, not binary. That is to say, it is possible to have different degrees of definiteness. The Givenness Hierarchy (Gundel, Hedberg & Zacharski 1993) is a particularly well-known demonstration of the gradient between fully definite and fully indefinite items.

We shall return to the gradient of definiteness later. For now, suffice to say that gender is complicated in indefinite situations. When you refer to a person, but a general rather than specific person, what gender is that person? This often occurs in situations where indefinite pronouns or nouns are used directly, as in *Every parent should love _ child*. This hypothetical sentence has a vaguely plural scope, in that it encompasses multiple people, but it is grammatically singular. 'Parent', as a common noun, necessarily encompasses both mothers and fathers. If we had a gendered noun, like *mother* or like *father*, the choice of pronoun would be obvious. We could say "Every mother should love her child" or "Every father should love his child". Any given person using the feminine word *mother* could be normatively assumed to use the feminine pronoun *she*, and any given person using the masculine word *father* to use the masculine pronoun *he*. The pronoun is singular; the indefinite referent is singular; the conceptual genders of the pronoun and the words match; harmony reigns all around.

With an epicene word like *parent*, though, the situation becomes troublesome. "Every parent should love _ child" requires a pronoun that can cover both a hypothetical mother and a hypothetical father, as the scope of *parents* is, at minimum, mothers and fathers. If you, for example, choose "Every parent should love his child" you are opening yourself up to a situation in which your sentence's scope could include something like *#Every mother should love his child*.[20]

[20] I use the semantic/pragmatic infelicity symbol to express gender conflicts throughout this section following L. Ackerman (2019a)'s discussion of this kind of clash as a pragmatic issue.

An example like the above scopes the entire population of parents, encompassing a group distilled to a single entity. On the other hand, a sentence like "Someone called, but _ didn't leave a message for you" names a single entity whose identity is unknown. Rather than target a whole group, it targets a single person, but the person's identity is unspecified. Using a gendered pronoun is fine, if you know the unknown person's gender. But if, for instance, you didn't pick up the phone, using "Someone called, but he didn't leave a message for you" opens up the possibility of incorrectly implying *#Jane called and he didn't leave a message for you*. Similarly, an exchange like "One of my students failed the test.""Did _ not study?" requires an indefinite pronoun that does not specify gender, because, while the first speaker may know the student's gender, the second speaker does not. To say *Did she not study?* could produce an incorrect gendering if the student is not a woman.

Thus, any lack of knownness in a referent can cause gender trouble. We can illustrate degrees of indefiniteness in person nouns with the gradient below, split into several categories following Konnelly & Cowper (2017: p. 7). Sample sentences are given.

(2.1) a. Nobody$_i$ in _$_i$ right mind would enjoy bread that dry.

b. Every parent$_i$ deserves support when caring for _$_i$ children.

c. A good person$_i$ should evaluate _$_i$ own beliefs frequently.

d. I heard there was a new librarian$_i$, but I haven't met _$_i$ yet.

e. My student$_i$ keeps flunking tests even though _$_i$ is/are studying hard.

The most indefinite type of indefiniteness is a quantified common noun or indefinite pronoun (a., b.). As discussed, the scope of these forms is to some degree plural as it covers an entire population. A generic, unspecified referent is similiarly nonpersonal, but has singular scope (c.). An individual whose gender unknown is personal, but unspecified for gender (d.). An individual of specified binary gender, but whose specific identity the speaker wishes to deemphasize, is perhaps the most definite form of indefiniteness (e.).

Each of these situations differs in how indefinite they are, but all require some sort of solution to fill the gap. As we shall see, the source of the prescriptively "correct" choice has been a contentious one.

2.2.2 Prescriptive Solutions

The so-called 'epicene he' has long been traditional grammarians' pronoun of choice, and for many years (in fact, for about two hundred; see Adami (2009: p. 282).) it was the most frequently prescribed option. In Bodine (1975: p. 138), for example, twenty-eight out of thirty-three studied grammar manuals suggested it as the best epicene. And it is true that in history, it has been one of several competing epicenes. But there are practical problems with its use, just as there are with the other epicenes. Traditional grammarians often claimed that *he* was sexless when used in the indefinite. This rule was borrowed from Latin, which obviously has grammatical gender. In fact, this is not the case for English. Masculinity is no longer a grammatical category in English; it is a semantic one. As Balhorn (2004: p. 88) puts it, introducing gender into a previously

underspecified-for-gender reference makes gender a salient property, which can create incorrect or conflicting readings. Jochnowitz (1982) remarks that generic *he* in tag questions as in "*Everybody likes pizza, doesn't he?"[21] is "just not done" in spoken English because there is a conflict between the gender-underspecified *everybody* and the gender-specified *he* (199).

[21] Asterisk is original to the paper.

Beginning in the 60s and 70s, epicene *he* also came under attack from feminist language-reformers, who felt that using the masculine to represent both men and women was androcentric. Certainly, prescriptive grammarians who advocated this usage often did so with the assumption that the masculine was somehow more general or more central than the feminine (Bodine 1975: p. 137). Whether or not this is true for languages with grammatical gender, it is not necessarily true of English. The flaws in this assumption become obvious in sentences like the prototypical "The best person for the job will be selected regardless of his gender". Cognitively, research in English has borne out these objections that epicene *he* is not so epicene in practice. Hamilton (1988), Gastil (1990), and M. M. Miller & James (2009) all found that, when readers encountered generic *he*, they disproportionately parsed the statement or sentence as referring to men.

Other solutions have been innovated in response. Hybrid forms like *he or she*, *he/she* or *(s)he* became common in the 1970s and 1980s (Jochnowitz 1982: p. 200). Many are often still used in writing, especially academic writing. But they are problematic in speech, where they are difficult-to-impossible to pronounce. Many also criticize them as awkward (Adami 2009: p. 285). Generic *she* is often considered unnatural or even sexist as well, which some use as evidence of generic *he*'s unsuitability as well: if a gendered pronoun can be epicene, why is generic *she* unnatural?

Because of this, there have been historical attempts to find a brand new pronoun that could serve as an exclusively epicene singular form. A few epicene-specific pronouns have existed dialectally in English; records of Gloucester dialect *ou*, for example, go back to 1789 (Baron 2020b: p. 187). Much more recently, children in Baltimore were recorded using *yo* as a neutral pronoun Stotko & Troyer (2007). Neither has migrated beyond its homeland. Intentional neologisms begin in 1841, with Francis Augustus Brewster's e/es/em, and continue all the way down to the 2000s (Baron 2020b: p. 187). Some of the more popular forms include ze/hir/hirs, ey/eir/em, and thon/thons/thonself. Because

of the diversity of these forms and their importance for showing us previously unrecognized things about the structure of English pronouns, they will receive a more detailed analysis later. Suffice it to say for now that creating these forms has been a popular exercise for amateur grammarians, but most have been less interested in ever actually using them. None have caught on in any popular source whatsoever. For the most part, their epicene use has been limited to speculative fiction, social reform, and other intellectual and radical-adjacent arenas. None have been as popular as a solution grammarians have deplored: singular *they*.

2.2.3 Indefinite They

They is, of course, the plural third-person pronoun, and it takes plural verb agreement, as in *they are nice*. This has been the source of much prescriptive furor regarding its use with indefinites. Bodine (1975) gives a thorough summation of the two-century-long attempt to stamp out singular *they* on the grounds of number concord. The alleged problem is that a form like *everyone* takes singular verb agreement (everyone is...) and *they* takes plural verb agreement (they are...). Curiously, however, grammarians objecting to this conflict rarely bring up the parallel conflict presented by singular *you*, nor do they advocate for switching back to *thou*. Like *they*, *you* takes plural verb agreement (you are...), and descends from a form that was at one point used exclusively for the plural. But the late 18th century grammarians of Bodine's record do not to mention this or discuss the potential conflict between the explicit gendering of *he* and the epicene nature of indefinite items (134). And as Gernsbacher (1997: p. 68) shows with examples like "I need a plate$_i$. Where do you keep them$_i$?", lack of number concord between referent and pronoun is not uncommon in English, and usually indicates that the pronouns are serving as conceptual anaphora.[22]

In practice, *they* has been an English epicene for a very long time regardless of prescription, alternating with generic *he* for much of its existence (Conrod 2020: p. 2). The earliest citation in the Oxford English Dictionary for *they* used with a singular antecedent is from 1375, from a translation of the French Romance poem William of Palerme (Oxford English Dictionary 2013).[23]

Hastely higed eche wigt til þei neygþed so neigh...
quickly went each man til they came so near
'Each person went quickly until they came near...'

[22] For more analysis of anaphoric uses of indefinite nouns and generic pronouns, see Heim (1982), Gerner (2000), Laitinen (2002), and Bennett-Kastor (1996).

[23] Due to display issues, yoghs have been replaced with g's.

The word *wigt*[24] in this passage is grammatically singular. As a plural it would appear as *wigte*, or *wigtes*, or *wigten* Kurath, Lewis & Kuhn 2019b. And *eche*, in Middle English as now, refers to individual entities (Kurath, Lewis & Kuhn 2019a). **Each men* would be in grammatical conflict. Yet the pronoun used is *they*. Singular *they* has a history of some 645 years in English. This is striking, as the OED's first attestations for plural *they* only date back to 1175, just 200 years before the William of Palerme example.

[24] Modern English *wight*, an archaic word that has enjoyed some revival in fantasy fiction lately, though with a different sense.

Nor is this an isolated historical incident. Singular *they*s abound throughout the history of English literature. Chaucer, writing in the late 1300s, was approximately contemporary with the OED citation for William of Palerme. Balhorn (2004) studies the rate of singular *they* with generic antecedents in his writings and finds that it occurs about 18% of the time, with most of the others generally being generic *he* (90). This may be reflective of spoken English at the time, since prescription about the "correct" pronoun to use for epicene contexts had not yet taken hold.[25] Singular *they* did not die off subsequently, either. In a corpus study of Oxford English Dictionary texts, Balhorn (2004) finds that *they* is used with singular, generic quantifier phrases at least 23% of the time every century since the seventeenth (data from the sixteenth century was too limited to analyze) (81). The rates also rose over the centuries, reaching 45% of examples in the twentieth century (82). Thus, for many years, singular *they* and generic *he* have been available epicenes for speakers to use in variation, and singular *they* has grown more common.

[25] Both Bahlorn and Bodine (1975) locate the rise of this prescription around the 18th century.

Balhorn's theory is the rise of epicene *they* is linked with with the change from grammatical to semantic gender in English pronouns. Chaucer's *they* is contrasted with the early 13th century Ancrene Wisse, written when grammatical gender was still present in English and *it* was rarely used with morphologically masculine or feminine inanimate nouns. In this text, there are no epicene *they*s; generic nouns and noun phrases have pronouns that agree with their grammatical gender (95). If a generic is needed it is, as in Latin, the masculine. As gender became a semantic property of referents rather than a grammatical property of morphology, there arose in English a need for a pronoun that functioned for generic referents, which by definition would not have specified semantic gender. *They* filled this role increasingly as time went on according to Balhorn's analysis.

Observations from linguists about singular *they* are also not new; Poutsma (1914) states that "owing chiefly to the want of a singular pronoun of the third person of the common gender, i.e. one that may indicate either a male or a female person, the plural pronoun of the third person is often used" with indefinite pronouns and common nouns (211). Poustma's examples draw from a wide range of literary sources, including Shakespeare, George Eliot, Jane Austen, and the newspaper The Daily Mail. Examples from literary sources from the 1600s and after are a staple of articles about singular *they*; almost any scholarly article on the topic references them, especially Shakespeare. It is quite frankly a trivial matter to find a singular indefinite *they* in canonical early modern and modern English literature. There is even a web page dedicated to the appearance of the form in Jane Austen's work specifically[26].

In a study primarily directed at tag questions, Langendoen (1970) found that the majority of even English teachers gave constructions like "Everybody likes me, don't they?" not constructions like "Everybody likes me, doesn't he?" (19). Green (1977) studied American high school students' written English and found that one-fourth of students used *they* with epicene antecedents. This was in written English, more formal and more prescriptively-policed than spoken English; Green concludes that epicene *they* was likely already normal usage. Jochnowitz (1982) calls it an "almost universal practice in colloquial English" and cites a handbook that accepts it for informal speech but not for written English (199).

People use singular *they* even when they claim not to approve of it. Bate (1978) assessed singular *they* usage and found, while most students disapproved of it, the same students used it to refer to generic antecedents such as *anyone* or *a faculty member*. Meyers (1993), studying educated English, found that 39% of participants used singular they at least once. 45% of the participants used they when discussing the ideal teacher and 81% used it when discussing 'the ideal grownup' (181). LaScotte (2016) found similar conflicts between people's perception of singular *they* and their actual use. In an acceptability judgement ask, 55% of students chose *he or she* as the best form to use with an indefinite antecedent, and only 24% chose singular they (69). But when the same participants were given a free response question, 55% pronouns referring to "the ideal student" used epicene *they*, and only 9% used *he or she* (67).

[26] The page can be found here. According to the page author, Austen uses the form 87 times across all writings and epicene *he* only twice.

Gernsbacher (1997) found that epicene *they* was either equally easy to process or slightly easier to process than epicene *he* or *she* – suggesting that not only is it common in English, it is in some cases less conflicting than epicene gendered pronouns (76). Likewise, Baranowski (2002) found epicene *they* as efficient to process as gender-matched, nongeneric *he* and *she*, and more efficient than gender-mismatched, nongeneric *he* and *she* (11). This suggests that the alleged plurality conflict in singular *they*, if truly a problem, is nowhere near as cognitively problematic as a gender mismatch (for example, "a mother should love his child".)

To further validate the frequency of singular *they*, a small-scale study of pronoun frequencies follows, taken from a course paper (Callaway 2018). A corpus was searched for combinations of indefinite pronouns with possessive adjectives. The chosen possessive adjectives were *his*, *her*, *their*, and *his or her*. The data was collected from the Corpus of Contemporary American English (Davies 2008) which contains data from speech, academic writings, newspapers, magazines, and fiction from 1990-present. Although some of the spoken data is scripted, the corpus creators note that about 95% to represent unscripted, natural conversation. The eight pronouns observed were *anybody, anyone, everybody, everyone, somebody, someone, nobody,* and *no one*. For each pairing, a sample of up to 500 tokens was collected from the corpus. For many cases, there were fewer than 500 tokens available; if so, all available tokens were collected. Indexation was checked by hand and cases where the possessive adjective was not co-indexed with the indefinite pronoun were discarded. A total of 3,325 relevant tokens were collected. Distribution follows below.

Table 2.1: Possessive Indefinite Pronouns per source

	Total	their	%	his	%	his or her	%	her	%
Overall	3325	2339	72%	564	17%	324	10%	45	1.4%
Spoken	1241	1057	85%	124	10%	48	4%	12	1%
Fiction	719	464	65%	189	26%	50	7%	16	2%
Newspaper	597	458	78%	81	13%	52	9%	6	1%
Magazine	524	290	55%	114	22%	110	21%	10	2%
Academic	173	70	40%	38	22%	64	37%	1	0.5%

The overall total percentage of *their* with these indefinite pronouns was 72%. In speech, it was even higher, at 85%. Only academic written text did

not have a majority of *they*, and even it had a plurality, narrowly beating *his or her*, which was rare in most sources but common in magazines and academic writing. Generic *he* was generally the second most common option apart from in academic sources where, as Adami (2009) records, *his or her* has surpassed it. But in no case, not even in the most formal written sources, does any other pronoun option supercede epicene *they*. This is in line with other research about epicenes in English.

Hekanaho (2020) also studied epicene *they* in perception and production. Out of 882 participants who completed a writing task, 734 used singular *they* when they needed a generic pronoun. Only 15% of participants used a gendered pronoun, generally *he or she* (116). For the grammaticality task, perception of *they* differed depending on what type of antecedent was present, with *every* having the highest acceptability and singular NPs having the lowest (108). That low number, however, was 82%, suggesting that participants overall found epicene *they* consistently grammatical.

This use of *they* is so longstanding and powerful that even when there *is* a gender-specified noun, a gendered pronoun may not appear, in recognition of the indefinite scope. Konnelly & Cowper (2017: p. 15) gives the example "No mother$_i$ should be forced by federal prosecutors to testify against their$_i$ child. (Billy Martin, L.A. Times, 1998)." I recently overheard the sentence "Every girl$_i$ deserves their$_i$ moment in the spotlight." Pullum (2006) documents "Any girl$_i$ who is interested must simply be born female and between the ages of 18 and 45. They$_i$ must have an IQ above 130 and they$_i$ must be honest." Even Shakespeare in A Comedy of Errors, Act IV, Scene 3 writes "There's not a man$_i$ I meet but doth salute me/As if I were their$_i$ well-acquainted friend". In other words, for most native speakers of English, all of the blanks in example set 1.1 could grammatically be filled with *they*.

Certainly in spoken English, and even in many informal types of written English, *they* is the epicene pronoun of choice, and it has been in use for centuries. Increasingly, prescriptive institutions are recognizing this. But with the rise of GQNB identity, gender-neutral pronouns found a new field of use.

2.3 Genderqueer Pronouns

2.3.1 Sources

The section below will map out a history of genderqueer pronoun use. This will, out of necessity, reference more primary sources than secondary ones. Documentation on GQNB pronouns is just beginning now, and all the history of the gender-neutral pronoun currently published focuses on the epicene, with GQNB use a sidebar if mentioned at all. Best on this is Baron (2020b), who dedicates an entire chapter to GQNB language. However, his story of the group's use essentially begins in the early-mid 2010s, and thus misses 20 years of GQNB history. To cover these years, I have had to use archive materials produced by and for GQNB people, which includes books, zines[27], blogs, forum posts, and social media posts. Because so much of GQNB community organizing has been done online, the latter three types make up a great deal of the material available.

[27] A non-commercial print work published by the group that wrote it. Zines are usually published in small numbers, and before the internet, were often the medium of choice for small, dedicated interest groups, such as fandom and queer communities.

Another important source will be The Gender Census, a brief survey on GQNB language preferences. Conducted every year so far from 2015-2020, this survey tracks "the language used by people whose genders are not adequately described, expressed or encompassed by the restrictive gender binary" (Lodge 2020a). It is conducted by Cassian Lodge, who states that they have no background in statistics or social science, simply an interest in documenting the community's preference. It's also short, tracking only identity words, titles, pronouns, and participants' age. These characteristics mean it cannot answer every question pertaining to GQNB pronouns with certainty.

However, the relatively long span allows changes to be tracked over time, and the participant pool is large and growing each year. In 2020, there were 24,576 participants, a very large number given the relatively small numbers of GQNB people in the population. The data is also free for anyone to download and use. Because of this, any study of GQNB language must include a discussion of these results.

2.3.2 The Pronoun Wars

Aligning nicely with the epicene usage, *they* is currently the most common choice for GQNB gender-neutral pronouns. Every year since 2013, The Gender Census had a strong majority of participants who used singular *they* preferen-

tially. The range has fluctuated between 63%-80% (the lowest in the first year), generally being in the high 70s; this year, 77.5% of participants selected it (Lodge 2020b). The text of this question was "Supposing all pronouns were accepted by everyone without question and were easy to learn, which pronouns are you happy for people to use for you in English?", and participants were allowed to select multiple pronouns. So, those who selected *they* also often selected another pronoun. But acceptability of *they* among participants was very high, being much more popular than all the other gender-neutral pronoun options combined (9.1% total) (Lodge 2020b). Genderqueer singular *they*, though by no means universal, is certainly very popular.

This use is a slight departure from the epicene *they* in that it is definite rather than indefinite. I stated earlier that the epicene uses themselves come in shades of definiteness, so we can view this one as a sort of terminal point on the slow slide into definiteness:

(2.2) a. Nobody$_i$ in their$_i$ right mind would enjoy bread that dry.

b. Every parent$_i$ deserves support when caring for their$_i$ children.

c. A good person$_i$ should evaluate their$_i$ own beliefs frequently.

d. I heard there was a new librarian$_i$, but I haven't met them$_i$ yet.

e. My student$_i$ keeps flunking tests even though they're$_i$ studying hard.

f. **Lake$_i$ left their$_i$ jacket here.**

In the final example here, there is a *they* that is specified and personal, but which belongs to someone for whom *he* or *she* is not an appropriate pronoun. Konnelly (2019) posits a gradual historical change at play within these categories. Stage 1, historical singular *they*, encompasses a.-c. This has been in widespread use since the 14th century. Stage 2, intermediate singular *they*, allows all historical uses plus new ones: any singular, specific, nongendered nouns (d. and e.). Stage 3, innovative singular *they*, can be used with all the preceding contexts and with names: f. as well. Konnelly suggests that Stage 3, innovative singular *they*, has been increasingly common since the 1950s, but that some speakers are still at the intermediate stage.

Both Konnelly & Cowper (2017) and Bjorkman (2017) analyze this as a significant structural change to the featural system of English pronouns that makes

gender an optional feature of English. For speakers without definite singular *they*, gender is obligatorily specified in pronouns for specific, concrete people. For speakers with it, gendered pronouns are only deployed when relevant and applicable. In other words, for conservative-*they* speakers, the default is *he/she*, with *they* only coming into play if there is no way to apply *he/she*. For innovative-*they* speakers, *they* is the default, with *he/she* only coming into play if they are specifically relevant.

But while its current popularity is unquestionable and its semantic pedigree is tidy, it has not been the universal pronoun of choice for long. In the 1990s, when the conversation around genderqueer identities began, *they* wasn't even on the radar. Instead, what appears in the earliest GQNB literature is neopronouns. An early version found in some queer source texts, such as Nestle, Howell & Wilchins (2002) and Robertson (2008), is *s/he* and *hir* (the subject and object are the only pronouns found in these texts). A very popular version was *ze/hir* and its varieties *zie/hir* and *sie/hir*, which are associated with some of the most popular early voices in GQNB activism. S. Bear Bergman and Leslie Feinberg, both crucial figures in GQNB history, championed them. Bergman recalled arguments with a professor over them in 1993 (S. Bergman & Barker 2017: p. 39). Feinberg used the *ze/hir* set as one of hir personal pronouns for many years (McNabb 2017: p. 77). An early website on GQNB identities, Androgyny RAQ, uses*zie/zir* and also lists *sie/hir* (Carter 1996). An early ethnographic study of genderqueer-identified teens does not use singular *they* for anyone (Wyss 2004). They use *ze/hir* as their default pronoun "to open the way for conceptualizing non-traditional gender identities and expressions", and none of the young people under study use singular *they*, with most using a gendered pronoun and one using sie/hir (714).

The pronoun continued to be popular enough into the mid-2000s that one transgender woman felt the need to write an editorial discussing her intense dislike of it (Park 2006). She admits "probably the best argument for gender-neutral pronouns is that there are some people who do not feel that they fit either gender and who may want to challenge the sex/gender binary that forces a choice of pronoun on them" but maintains that gendered pronouns are so embedded within English that *ze/hir* could never hope to catch on. She ends not by advocating singular *they* but by suggesting, "So I say, let's ditch these

artificial and ineffective constructs and instead strategically deploy gendered pronouns to destabilize and dismantle the prevailing gender order."

Another set frequently mentioned is some variation of *xe* or *xie*. The Spivak set[28], *e/em/eir/eirs* was also popular, along with a variant whose subject form is *ey*. And a multitude of other options were proposed and reproposed. The chaos was so pronounced that even in the 90s, one person felt the need to create an entire website to syncretize all the options, rate them according to a variety of characteristics, and advocate for the one ey felt was best (Williams 2004). Though updated periodically, the website was composed in the 90s, about when S. Bear Bergman was advocating for ze/hir. I refer to this period of diversity and uncertainty as "the pronoun wars" because there was a serious effort among those invested in the gender-neutral pronoun to find the "best" system and to get others to adopt it. This was true for both epicene and genderqueer pronouns; often, the people writing these texts did not draw hard lines between the two.

[28] Named after their popularizer, the American mathematician Michael Spivak, who used them in his book *The Joy of TeX.*

Singular *they* emerged as an option during the pronoun wars, but objections were manifold. Williams, for example, says "'They' and 'them' can be used with indefinite persons by combining with 'somebody', 'anybody', 'no one', 'everybody' — as in 'if anyone calls, tell them I'm not here.' But it can't be (comfortably) used in a sentence like 'When Dr. Xia comes they will speak on the topic of Degubblefnordocity in Chaotic Valisii''." The idea that singular *they* felt unnatural when definite is a common complaint, and a significant one. It seems that the generation of GQNB people who came of age during the 90s and early 00s did not have innovative singular *they*. Simply being GQNB was not enough for them to acquire it even when no other solution seemed natural either.

Another common complaint is the prescriptive one, that it is grammatically plural instead of singular. While generally unambiguous in the indefinite, the form can have some ambiguity in the definite, and this is commonly brought up in objections also. When there are three people whose pronoun is *they* in a conversation, it can be difficult to determine whether a particular use of *they* refers to one of these people or several of them. Consider the following sentence, where Bee uses singular *they* as their pronoun:

(2.3) The whole group$_i$ is here right now. Bee$_j$ says that they're$_{?}$ going to Thom's later, though.

It is not clear whether the group as a whole or Bee is going to Thom's. Although this can be disambiguated much as singular versus plural *you* can be, it does occur, so this is not simple prescriptivism at work: speakers are noting a real problem they have encountered in using this form.

Anecdotally, the genericness of *they* can also make it feel impersonal to some speakers; although this has not been documented in the literature, GQNB people have informally discussed the effect (Velleman 2019). Finally, singular *they* is an intentionally ambiguous pronoun; if you use it for someone, it's not always clear whether you mean to indicate that you don't know the person's pronouns, or whether that person doesn't use he or she. For many early genderqueer activists, this was insufficient. Thus, neopronouns continued to be proposed and enjoyed limited use in the community for many years.

The earliest real attestation of genderqueer *they* I have found appears in an article in the student publication *The Daily Bruin* which briefly discussed genderqueerness as a phenomenon. One genderqueer person interviewed for the article was described as follows: "Instead of she/her and he/his, Likover prefers to use they/their or genderqueer pronouns such as ze/hir" (Loewenstein 2005). The writer feels no apparent need to explain they/them pronouns, despite the fact that this was written for a cisgender audience, in contrast to the neopronouns, which the author felt the need to define as "genderqueer pronouns". Evidently, singular definite *they* was expected to be straightforward even when unfamiliar.

Two threads posted to the community ANDROGYNES on LiveJournal deal with the topic of gender-neutral pronouns. The first one (kiansilver 2005) refers to "neutral" pronouns as "ey/em/eir, ze/hir, zie/zir", but user ALCHEMIA mentions using *they*. Users HELLMUTT, AMPHISBAENA, and ART_OF_MISERY, however, object to the usage, generally on aesthetic or grammatical grounds. In the second one (yumesekai 2007), several users mention ey/em/eir and ze/hir/hir pronouns, but users LEXELBY, AESMAEL, and EIFAIDEN mention using *they*. LEXELBY says, "I prefer trying to wedge 'they' into a more flexible position than it already has." Again, note that this speaker sees genderqueer singular *they* as not quite natural to use.

The 2008-established blog Living Genderqueer, livejournal handle heshethey, contains genderqueer *they* (apparently at least recognized enough to serve as a signifier) both in its title and in a post. A September 2008 intro by one of

the community members lists pronouns as "male. Though I'm down with that combo of 'them' and the male pronouns. So confused people can pretend they're referring to me as 'them/they/their' just in case. But, if people know that I'm trans, I expect them to at least TRY to remember male pronouns" (heshethey 2008). This particular individual seems to regard *they* as a kind of auxiliary pronoun used to make cisgender people more comfortable with his apparent gender ambiguity.[29]

A 2008 thread titled The Androgynous Mind on the Asexuality Visibility and Education Network asked users "Have you ever thought there should be words to refer to androgynies other than 'they' or 'hir'. Or do you know any more." (Orren 2008). Users expressed mixed preferences about the two pronouns mentioned, with some finding the *they* "grammatically incorrect" or generally unnatural, while others disliked the idea of coining new pronouns, and still others simply wished for a better option than those that already exist.

In the same year, the cisgender science fiction author John Scalzi noted that he used *it* as a pronoun for intersex aliens in a book he was writing, but that he would never use the pronoun for a human intersex person – "that would probably get me slugged, and rightly so. I suspect in the end I would use 'they' in the cases where I met or was describing someone intersexed/hermaphroditic who did not already self-identify as male or female" (Scalzi 2008). Scalzi added that he had never met such a person, but that "'They' is already used this way informally, and it's not a new pronoun form that people currently over the age of 25 will feel goofy using." and thus that this is the option he would feel most comfortable with. This author's usage is not influenced by the GQNB community, which in any case had not settled on *they* yet; he seems to have generated it internally.

Profiles in the blog genderfork (Dopp 2009) further support the idea that, during this time, adoption of *they* was mixed in the GQNB sphere. The profiles start in 2009 as a way for members of the community to establish their preference, and the first few people listing pronouns seem ambivalent. Some express no preference among the neutral options. The user GENDERKID lists his preference as "He, him, his (although gender-neutral pronouns are fine, too)". User DISS states, "when used inclusively and respectfully i also like neutral or third gender pronouns." User RYAN acknowledges singular *they* but, like Likover,

[29] This highlights the darker side of singular they. Epicene pronouns are sometimes used to avoid correctly gendering binary transgender people who do not "pass" well enough for a cisgender observer, like a less overtly insulting version of *it* (Enke 2012: p. 17).

uses it alongside other options: "use 'ze' and 'hir', 'they' or 'their', anything really, I don't mind, so long as you aren't using them to box me in."

Others express dissatisfaction with the existing options. VANITYSMURFETTE STATES, "I'd like to come up with a de-gendered third person pronoun". User CHAVREY says "And they can use gender-neutral ones if they want, I guess. But those are kind of confusing." User HANNA states, "if you come up with a really good truly gender neutral third-person pronoun I'll be very happy". These statements recall GQNB activist Holly Bowers' comment 12 years earlier: "You don't have a pronoun for me yet" (Wilchins 1997: p. 118), and Eli Clare's just two years after that: "You don't have pronouns yet for us.". Only one user, HEYLX, states an exclusive preference for *they*, in a profile dated April 17th, 2009. Uptake of genderqueer *they* was far from complete at this time.

And in 2010, the anonymous blog Gender Neutral Pronoun blog (anonymous 2010) was established with the goal of finding a gender-neutral pronoun that all could agree on: The Search for a Polite Specific Gender-Neutral Third-Person Singular Pronoun was the blog's subtitle. The blog owner listed several pronouns and ranked them based on ease of pronunciation, distinctiveness, and gender-neutrality. This explicitly centered "addressing transgender and genderqueer people who don't feel comfortable being addressed with masculine or feminine pronouns" and expressed a familiar dissatisfaction with *they*: "in some cases even a singular 'they' just won't work – specifically when a name is used". Though some people were using singular *they* as their pronoun, some still found it ungrammatical.

The project They Is My Pronoun was a blog dedicated to raising awareness of singular *they* which, in 2012, the author said "is gaining ground and acceptance as the most popular and recognizable gender-neutral pronoun" (Airton 2012). Thus, by 2012, singular *they* was already popular in parts of the community, but not so popular that its dominance was unquestioned. (Lodge 2013)'s first Gender Census, done only a year later, found that 63% of their 2,000 GQNB participants were using the pronoun. Again, this hints that *they* was established by not overwhelming the other options yet. Both Lodge and Airton refer to "singular they", instead of just "they", possibly suggesting that the usage might not have been so familiar that every person encountering it would be expected to understand that genderqueer *they* would be singular. 5/20 Gender-

fork profiles mention singular *they* as the pronoun of choice in 2013, and fewer express dissatisfaction with the available neutral options.

The same year, the book Transfeminist Perspectives Enke (2012) contains the following passages acknowledging *they* alongside *ze*:

> It would be fair to characterize trans studies as a field peopled by those who will not rest content with the disciplining behaviors of language, and thus, intentionally or not, we nurture that other quality of language to be prolific and unruly. Some people even prefer the ensuing grammatical disasters, because they sometimes signify something profoundly accurate. In many locales, for example, "they" is a common third-person singular pronoun that some people feel is more flexible and "roomy" than the (over)determined and singular "he", "she," or even "ze." (p. 4)

Meehan (2013), in a study of gender-neutral pronouns, found that "ze and hir are popular neologistic neutral pronouns" but that "the use of they and them seems to be on the rise" (5). They documented several different spelling variants of the ze set: ze, sie, cie, and xie. 40% of their participants gave a preference for "gender-neutral pronouns", citing both they and ze, though participants encountered resistence to both forms (30). Some participants felt that the constructed pronouns were elitist or hard to pronounce, while others felt that *they* was confusing.

Numbers of *they*s grow both in the Gender Census and on Genderfork in the ensuing years. S. B. Bergman (2017) admitted to no longer championing ze/hir: "it seems like language is moving toward adopting the singular they, much more than ze and hir". By 2017 *they* was well established enough that a prominent voice in the GQNB community felt that ze/hir was no longer a reasonable cause to champion. Again, this timeline aligns with the Gender Census's records: that year, 80.5% of survey participants chose *they* (Lodge 2017). And the same year, 16/20 profiles on Genderfork mention *they* as a pronoun of choice. That year, Richards, Bouman & Barker (2017) acknowledged it as the most popular pronoun for GQNB people as well.

Hekanaho (2020) found that 50% of 72 GQNB particpants exclusively used singular *they*, while 82% listed it as one potential pronoun that was acceptable to them. 3 participants used *it*, and 10 participants used neopronouns: *ze/zhe*,

xe, *e/ey*, *ae*. This aligns well with that year's Gender Census, where 77.5% of participants chose *they* as a pronoun they use, and the most popular other neutral pronouns were *xe*, *fae*, *ze*, and *it*. Although many users still liked other options, the majority were comfortable with *they*.

The best I can gather from this patchwork of sources is that singular *they* was not established as a genderqueer pronoun until sometime around the mid '00s, and didn't reach a "critical mass" of GQNB users until the early '10s. During the late '00s and early '10s debate on the best gender-neutral pronoun was still raging. But starting in the early '10s *they* seems to expand quickly, reaching a strong position by the mid '10s. At this point, GQNB identities start to hit mainstream news, starting especially in 2014 when Facebook changed its policy to allow genders other than male and female on profiles (Richards, Bouman & Barker 2017: p. 45). More people become aware of the then-most-popular genderqueer pronoun, singular *they*, as a result, further increasing its popularity. What is noticeable, however, is that this expansion seems to be largely unremarked-upon within the community itself. While outsiders see the rise of singular *they* as novel and swift, the internal shift from neopronouns to *they* is rarely mentioned within GQNB spaces; people seem to take it for granted. This is odd, because it was by no means universally predicted to be the victor in the pronoun wars, as we saw from people who found it awkward or unnatural.

This is not to say that these pronouns are universally well-recieved by cisgender speakers, however. Hekanaho (2018) found that 67% of participants accepted definite singular *they*, but only 34% accepted *ze* and 33% *xe*. This was influenced by attitude to GQNB people and by political orientation, unsurprisingly, with more conservative participants disliking the pronouns more. Participants who disliked *they* objected to it on the grounds of number (28% of participants), found it awkward (18%) or confusing (17%), grammatically incorrect (10%), or expressed the sentiment that it wasn't needed (7%). Those who disliked *ze* felt it was "not part of English" (25%), weird or alien (22%), confusing (7%), or felt that there was no need for it, either because they did not believe in nonbinary genders or because singular *they* existed (15%). 13% of all participants said that *they* was better than neopronouns. Broadly speaking, cisgender speakers are more resistant to genderqueer pronouns than GQNB people are, as one might suspect. However, the general favoring of genderqueer *they* over neopronouns is a pattern that finds validation in cisgender speakers. This suggests

that settling on *they* was not something GQNB people did with no feedback or input from the cisgender speakers around them; instead, the negotiation of a neutral pronoun may well have been at least partly mutual.

It is possible that genderqueer singular *they* arises, not from GQNB sources alone, but from the increasing influence of anonymous internet environments as well. It is very common, when interacting with someone on the internet whose gender you don't know, to use an epicene *they* to refer to them. Bjorkman (2017) finds that for many speakers, internet handles are more felicitous with *they* than proper names (6). Bearing in mind that internet handles are neither titles nor names per se, the indefiniteness categories listed above could be revised to include another step:

(2.4) a. Nobody$_i$ in their$_i$ right mind would enjoy bread that dry.

b. Every parent$_i$ deserves support when caring for their$_i$ children.

c. A good person$_i$ should evaluate their$_i$ own beliefs frequently.

d. I heard there was a new librarian$_i$, but I haven't met them$_i$ yet.

e. My student$_i$ keeps flunking tests even though they're$_i$ studying hard.

f. **catfan83$_i$ said they'd$_i$ be in the chat soon.**

g. Lake$_i$ left their$_i$ jacket here.

Item f. refers to a fixed, concrete, singular person who is known to both the speaker and the interlocuter, but the person's gender is undisclosed. This is in contrast with d.-e. where the person of reference is unknown to either the speaker or the interlocuter. For f., *only* gender is unknown. This lack of gender knowledge is all that keeps the referent from being fully definite and fully known. But because gender is the property that determines use of he versus she, *they* is still used in an indefinite sense here to avoid the possibility of a pragmatically incorrect pronoun use.

My hypothesis, although this is speculative, is that genderqueer singular *they* was to some degree influenced by internet-anonymous *they*. GQNB people have historically gathered online as soon as it was possible for them to do so in large numbers, and throughout the '00s and early '10s, their communities became larger and more active. As this happened, objections to *they* lessened. Perhaps that is correlated to increased exposure to anonymous *they*.

What is most telling is that GQNB people had communities and discussions around pronouns from the 90s onward, and for about fifteen years of that time, singular *they* was not in common use in those communities. If use of definite singular *they* was *generated* by GQNB activism, one would expect it to arise earlier. But in fact it doesn't appear until 2005, and GQNB people do not adopt it consistently until the early 2010s. Many express grammatical discomfort with it. One of the earlier sources advocating for its use is, in fact, a cisgender science fiction writer. Genderqueer use of *they* may not have caused innovations in the use of *they* for younger speakers on its own. Instead, innovations in the use of *they* for younger speakers, possibly helped along by new exposure to anonymous environments, may have allowed genderqueer singular *they* to develop. If so, genderqueer and anonymous *they* developed in sync, pushing each other, rather than one pushing the other. Once a more definite use of *they* reached a "tipping point" and dispersed through enough of the population, it was available for speakers to use, and they used it to express a new purpose.

If this is true, it makes genderqueer *they* much less intentional, much less of a quasi change-from-above (Labov 1965), than people have hitherto assumed. It's not a deliberate, constructed gender-fairness change the way something like the conscious replacement of "mailman" with "mail carrier" is. Rather, it's a further semantic expansion of an existing form that was already actively expanding. Instead of viewing it – as some sources have – as a hard leap from indefinite singular *they* to definite genderqueer *they* purely as a result of a limited group's social pressure, it may be more useful to consider the forms on a gradual drift of definiteness in the speaker population as a whole, and to place it in line with an increasing loss of gender in English. This kind of gradual pushing of a form to more and more innovative use is in line with Neels (2020)'s observations on the propogation of a grammatical change. Whether or not genderqueer *they* grew from anonymous *they*, it does represent a logical next step in the the gradient of definiteness. Furthermore, it's more accurate within the context of the community as use to see it as a gradual and unconscious change that was produced alongside, not in opposition to, cisgender usage, especially because the GQNB-community adoption of *they* over neopronouns as the most common genderqueer pronoun was not the result of prescriptivism or any organized community effort.

They won the pronoun wars. GQNB community discussions no longer tend to circle around questions like "what's the best pronoun for representing our gender?" or "what neutral pronoun is most grammatically efficient?" If there is a default for GQNB people, it's *they*. But not everyone has abandoned neopronouns. In language, true synonyms are comparatively rare, and items with the same meaning tend to have to specialize in order to survive Aronoff (2019: p. 2). While singular *they* has become the most common unmarked neutral pronoun, neopronouns continue to be used for other purposes – primarily, gender play and more granular gender expression – because of their diversity of form. As the subsequent chapters will show, they are a significant site of linguistic experimentation. There is also the animate use of *it* to contend with. This is comparatively rare; the most recent Gender Census finds under 10% of participants using it annually, with the highest in 2021 at 9.3%. However, GQNB people do use it, even if only in small numbers, and often it is used for a specific rhetorical expression. M. Y. Chen (2021) provides an academic perspective on this usage as a way to call attention to and reclaim one's own perceived illegibility or queerness. This is another innovative, marked use of a neutral pronoun to engage in gender and identity play and expression. Thus, while *they* has taken its place as a relatively unmarked neutral option, the space of gender-neutral genderqueer pronouns contains more than just this.

2.4 Strategies in Other Languages

Gender-neutral language has been fairly successful in English compared to many other Indo-European languages with gendered pronouns. This is likely at least partly due to the fact that English has so little gender in other parts of the language. If you want to innovate a form to cover GQNB speakers who don't feel represented by the masculine and the feminine, all you really need is a pronoun.

But English is not the only language where this is true. The Swedish form *hen* is perhaps the most famous and most successful gender-neutral neopronoun of all. Much like the English examples I've mentioned, it was originally created with the intent of establishing gender-fair language for indefinite situations, but has been adopted by gender-diverse speakers in Sweden as well. Again, the success of *hen* may have something to do with the nature of Swedish grammar. Although Swedish has grammatical gender, the two genders are common

and neuter (Josefsson 2006: p. 1347). Personal pronouns *han* and *hon* are used only for animates and mark conceptual, not grammatical, gender; only in inanimate pronouns *den* and *det* is morphological gender agreement required (1352). Thus, for a speaker in Swedish, choice of *han* (masculine) vs *hon* (feminine) is a social, rather than grammatical, distinction, much like *he/she*.

As in English, the resulting conceptual gender space has a gap where an indefinite person or a person whose gender is neither male or female might be. Into this spaces goes *hen*. *Hen* was first proposed in the 1960s, based on the similarly-pronounced Finnish hän (Milles 2013). Again, like English coinages of this period, the target was for epicene, not genderqueer, uses. As with *they*, *hen* can be used in a variety of situations of scaled definiteness. Ledin & Lyngfelt (2013) divide this into transgender, anonymous, unknown-gender, indefinite, and generic. The form was used occasionally in certain contexts; Ledin & Lyngfelt (2013: p. 148) found a few *hen*s per million words in blog searches conducted 2007-2012. Most were anonymous, gender-unknown, or indefinite, although 15% were genderqueer (150). But the form suddenly received significant media attention in 2012, when a children's book using the word was published (Gustafsson Sendén, Bäck & Lindqvist 2015). At this point, it emerged onto the national stage and controversy raged, as it is wont to in discussions surrounding genderfair language.

Gustafsson Sendén, Bäck & Lindqvist (2015) studied attitudes towards the form in an annual survey 2012-2015 and found that attitudes quickly became positive over time. Negative attitudes in 2012 were 56.5%; 2013, 26.1%; 2014, 17.5%; 2015, 9.6%. Positive attitudes were 2012, 17.4%; 2013, 40.4%; 2014 32.5%, and 2015 68.9%. In just four years, participant reactions to *hen* almost completely reversed. Unsurprisingly, overall attitudes were more negative in those who identified with right-wing politics and more positive in those who identified with left-wing politics (7). In 2015, the last year of the study, hen-fans won a victory when it was added to the Swedish Academy Glossary (Gustafsson Sendén, Bäck & Lindqvist 2015: p. 2). Use, however, remained low throughout the period of the study. Fewer and fewer people said they never used it, but the number of people who always or often used it stayed around 10% through the entire period of the study (6). So while attitudes quickly became positive, behavior was slower to shift.

Lindqvist, Renström & Gustafsson Sendén (2019) found that use of *hen* reduced male bias by the same amount as using a mixed form like *han/hon*, vs the neutral noun *den sökande* 'the applicant' which had a male bias. This suggests that, whatever else may be true of it, *hen* is successfully gender-neutral. Vergoossen et al. (2020) also found that the processing cost of *hen* is not significantly more difficult to process than gendered pronouns, even when paired with gendered nouns. Participants slowed down slightly after reading *hen*, but this did not impact their reading comprehension, nor did they struggle to associate the pronoun with the noun phrase. The author connects this to similar studies on English similar *they* finding a similarly low processing cost (7). Perhaps *hen* is here to stay, but only time will tell. Most studies on *hen*, however, have been on the epicene; few have asked Swedish GQNB speakers their pronoun of choice. How many GQNB people in Sweden prefer *hen*, and how many prefer singular *de*, an alternative Ledin & Lyngfelt (2013: p. 163) list as also appearing in Swedish? One crosslinguistic study, Hord (2016), contained six Swedish speakers, two of whom used *hen*. The rest did not use a neutral pronoun in Swedish. This conforms that at least a few GQNB speakers in Swedish have taken up the pronoun, but given the very tiny sample size, it's impossible to say how common it is from this study.

This research *has* been done in Danish, at least preliminarily. Miltersen (2018) polled 75 Danish speakers on their genderqueer pronoun of choice. The Danish binary pronouns are *han* and *hun*; alternatives in the poll were singular *de*, *hen* as borrowed from Swedish, and *den*, the common-gender third-person singular. 47 respondents chose *de*, 22 *hen*, and 13 *den* (37). Thus, there are multiple options available for GQNB Danish speakers: two paleopronouns and a neopronoun. As in English, a singularized plural may be winning out, but more research is needed to be certain.

There are many GQNB speakers of German, Spanish, and French as well. It is these languages, of all the grammatically-gendered European languages, that have received the most attention in GQNB languages. For speakers of these languages (and others), gender-neutral language is more complicated than just coining a pronoun. Neutral morphology must also be coined for use across coordinating adjectives, articles, nouns, and/or verbs.

In Spanish, much of the media attention has revolved around replacement of -a/-o endings. Although there are exceptions in Spanish grammar, it is com-

mon for -a endings to be feminine and -o endings to be masculine in Spanish, as in the adjective hermosa (f)/hermoso (m). One replacement strategy is to use @, as in hermos@, meant to encompass both the masculine and feminine instead of using the generic masculine (Matos 2018). The ending -x is also used to specifically break out of binary-gendered expectations and force reflection on gender (López 2019). Obviously, both of these strategies are difficult-to-impossible to pronounce, which has caused pushback. A more pronouncable strategy is the use of *-e*, as in *hermose*. This is formed off existing words like *intérprete* which can be either masculine or feminine, and has been discussed as an option at least since 1976 (López 2019). The ending -i has also been documented, but is much less common than -e (Papadopoulos 2019: p. 13). In one study, 9% of participants used the -e endings for groups and 18% for an overtly indicated GQNB person (19). By contrast, 0% used -x for groups and 9% used it for an overtly indicated GQNB person. None used the -i endings. (Zarwanitzer & Gelormini-Lezama 2020) found that processing for both -x and -e endings was slower than that of -o or -a endings, regardless of age or gender, so this change is apparently not entrenched in Spanish yet. The unpronouncable -x endings were not slower than the pronounceable -e endings to read.

Actual pronouns are much less remarked-upon. The most common third-person option seems to be *elle*, in contrast to masculine *él* and feminine *ella* (López 2019). This is essentially simply an extension of the -e strategy to existing pronouns. The pronoun *elli* is also associated with -i ending users (Papadopoulos 2019: p. 13). Thus, while gender-neutral language is a hot topic in Spanish, gender-neutral *pronouns* are less attended to than other types of language.

Gender-marking in French is often more fusional than in Spanish. This can make it more difficult to come up with gender-neutral forms. Pronouns, however, have been studied. Shroy (2016: p. 25) found the most common gender-neutral French pronoun to be *iel*, a combination of *il* and *elle*. The conjugation for subject/tonic/demonstrative is given as iel/ellui/cellui or cille (Caño 2019: p. 28). This was used 1,539 times in the author's Twitter search. Other forms included *olle*, *ael*, and *yel*. A 2017 community survey on a French GQNB Facebook community found *iel*, *yel*, *ul*, and *ol*, with *iel* being the most common (Unique En Son Genre 2017). (Caño 2019) found speakers using all the above options, as well as *ille*, *os*, and *on*, with the last being an impersonal pronoun somewhat like English *one* (21). The most common was, once again, *iel*. Like-

wise, Knisely (2020) found *iel* to be the most frequently-mentioned pronoun for GQNB French speakers, with 48% of participants choosing it or the yel-variant as their pronoun of choice. Although most of these studies have been small-scale, informal, or both, *iel* seems to be the pronoun that has developed the most attention such as it is. Unsurprisingly, none of the options have won prescriptive approval yet. They have, however, won some discussion in blogs and newspapers in recent years, such as alexatseawriter (2017), Deborde (2017), Martel (2019), and Guinhut (2020). This may indicate that conversations about the form are starting to reach a broader audience, as *hen* did in the early 2010s.

Academic studies of German pronouns are even scanter. Perhaps the most currently-discussed version is one proposed by Anna Heger, the *xier* set (observe the parallels to the English xe/xie). This is xier/xieser/xiem/xien in the personal, dier/dies/diem/dien in the relative, and *xies* in the possessive (Heger 2021).[30] Some people also suggest adopting *hen* and updating it for German morphology (Puschnig 2016). Again, none of these solutions has won widespread use.

[30] The number of declensional forms required may illustrate why there are not yet many German genderqueer pronouns.

For other languages with gendered pronouns, neutral pronoun forms and literature on them is even scarcer. Largely, these are limited to individual, scattered efforts to come up with a neutral pronouns and morphology. Nonbinary Wiki, [31] a community-led anonymous wiki-website, has a page for pronouns. Entries include propositions for Arabic, Bulgarian, Chinese, Czech, Dutch, Esperanto, Icelandic, Italian, and West Frisian, as well as the languages I've mentioned previously. None have won widespread approval or attention so far.

[31] The page can be found here.

In the above list, I mention Chinese; this is a curious case. Chinese pronouns are gender-neutral in speech, with both the masculine and feminine pronounced as *tā*. In writing, however, the forms are differentiated. The masculine pronoun, is written with the human radical, while the feminine is written with the woman radical. This differentiation only arose in the 19th century, after Western contact (Cheng 2016: p. 102). However, most Chinese speakers are unaware of how recent the form is. As a way providing a gender-neutral form and promoting gender quality, some textbooks suggest only using the original human-radical form (currently only used for the male) and abandoning the woman-radical form (Cheng 2016). This provides an interesting insight into how gender can find its way into languages that are generally neutral, and how speakers respond when a desire for gender-neutrality reemerges.

2.5 Conclusion

As discussed in recent literature, gender in English pronouns is a semantic and pragmatic issue, referencing complex sociocultural ideas about gender and gender roles rather than sex per se. They can be used to indicate stance and engage in linguistic play. But since English pronoun gender is binary and specified, indefinite reference (where a referent's gender is unknown), troubles the system.

Singular *they* is now, and has been for many years, the most common epicene pronoun in speech and colloquial writing. It is increasingly frequent and accepted in academic writing as well. Generic *he* and combined forms like *he or she* have also enjoyed some use at various periods, with generic *he* ceding ground to combined forms after the antisexist language reform efforts of the 1970s and beyond. Epicene indefinites, especially *they* and *he*, have been well-studied for English. The history, usage statistics, and processing impacts of each form have been discussed in detail, especially recently.

We understand less about genderqueer uses of pronouns. The history of these forms has been obscured by a focus on the epicene, and there has been a general assumption that genderqueer adoption of epicene forms has been a minor, prescriptivism-driven side issue. We do not even know for sure when, where, or how genderqueer singular *they* arose from the epicene version, although the early 2000s seems a probable time period based on my examination of primary sources. According to my analysis, the form continued to compete with then-more-popular neopronouns, as well as with the more niche animate use of *it*, and eventually rose to dominance around the early 2010s. But a vague sketch of the history of these forms is the best that can be done with the scanty available early evidence.

Because of the aforementioned folding-together of the epicene and the genderqueer neuteral pronoun, studies on the frequency of genderqueer pronouns are limited. Lodge's work is the only large-scale study of genderqueer pronoun use, and it lacks demographic data. It also lacks any components recording broader information like whether or not other people use the pronouns that GQNB people request, where GQNB people feel comfortable engaging in pronoun talk, and why GQNB people choose the pronouns they do. These questions are the subject of Chapter 3's usage survey.

We also know very little about the process by which these new forms are innovated and how they relate to the existing pronoun structure of English. This question with regard to neopronouns is the subject of Chapter 4. Then, too, there are the processing and usage issues. To what extent has singular *they* been adopted by cisgender speakers? Where are cisgender speakers in their acceptance vs. use of singular they, and what about neopronouns? How comfortable are naive participants with these innovative uses of pronouns? This question is the focus of Chapter 5's experimental task.

Chapter 3

Mapping the Space of Genderqueer Pronouns

3.1 Introduction

A simple peek into GQNB-created spaces is sufficient to show that GQNB people are doing some experimenting with pronouns. Lists of pronouns, the Pronoun Dressing Room[32], and pronouns listed in bios are only some of the ways this manifests. However, precise data is lacking. Lodge's annual survey is the only large-scale source of data on how many people go by what pronouns. And although it is a useful source of information, it does not give any depth of information about why and where people make their pronouns known.

[32] An application created to allow a person to put in their name and a set of pronouns, and get the name and pronoun inserted into a paragraph of text. This allows them to see how they feel about the pronoun in question.

Many scholars of variation and change, from Weinreich, Labov & Herzog (1968) to Wasow & J. Arnold (2005) to Gries (2009), have pointed out the importance of empirical data in developing linguistic theories. In order to make statements about the state of GQNB pronoun use and how it relates to language change, it must be established what that state is. As such, an exploratory survey was conducted. This survey was developed based on a previous smaller-scale (n=200) survey designed and carried out in 2015, which investigated neopronoun users specifically (Callaway 2016).

The survey was piloted with 20 GQNB individuals who helped make it more applicable to a wider group of experiences. The survey was created using Qualtrics, and distributed through Tumblr[33] and Twitter. The study design had approval from the UGA IRB. For Tumblr, the survey was posted under the

[33] Other explorations of GQNB identity on Tumblr include Fraser (2017), Feraday (2014), Byron et al. (2019), and Oakley (2016).

hashtags nonbinary, non-binary, genderqueer, enby, pronouns, neopronouns, nb, gender neutral pronouns. For Twitter it was posted under the hashtags NBfolks and genderqueer. The survey was open for one month from late January to late February 2021, and there was a total of 2,159 participants, including partial and disqualified respondents. A complete copy of the survey instrument can be found in Appendix A. Demographic information – gender, age, country of origin, whether or not the participant was a native speaker of English – was collected first. Participants were then asked for their ideal pronouns and any alternate pronouns they went by (3.2.1). Then I asked them about their pronouns and other gendered language in other languages, if any (3.2.7). I asked what pronoun sets they went by in the past, how many times they'd changed pronoun sets, and whether they thought they'd change pronoun sets in the future (3.2.4).

Next they filled out a matrix table for ideal and alternate pronouns (3.2.2). For both pronoun sets, I asked them how important certain factors were in the selection of the pronouns. These factors included ease of use (for the self or others), doesn't draw attention, is unique, aesthetic appeal, expression of gender or some other factor of identity, and, finally, a factor that I expressed as "this pronoun set sounds like me". The factors chosen were based on many years of community experience, as well as the 2015 survey's responses.

Although this last factor is quite nebulous, it cannot be left out, as Miltersen (2016) demonstrates. People talking about choosing new pronoun express this sentiment again and again. When I conducted a previous survey in 2015, many participants wrote in some variant of the phrase as a reason they chose their pronouns. When the current survey was piloted, 8 of the 16 participants who answered this question set said that this factor was "most important" in their selection of their ideal pronouns, and another 4 marked it as "pretty important", meaning 12/16 (75%) considered this factor an important one in their selection of pronoun. Even for the alternate pronouns, which are often chosen with a view to practicality, 2 participants said this factor was "most important" and 2 said it was "pretty important", meaning 4/16 (25%) found it an important factor in the selection of even alternate pronouns. In other words, it seems to matter to quite a few people whether a pronoun set "sounds like you", so whether or not it's easy to define, it's something that people consider when choosing pronouns and needed to be in the final survey.[34]

[34] For more literature on self-construction and "sounds/feels like me" across a variety of areas, see Westcott (1992), Duthie (2007: p. 66), Watkins, Davis & Callahan (2018: p. 15), and Stern (2020).

After the matrix table, participants were asked why they chose their pronoun sets and how those sets related to their gender expression. This section was free response. Then there was a section on pronoun assertion (3.2.5). Participants were asked about strategies they used to assert their pronouns in online and face-to-face contexts, and how they corrected people who mis-pronouned them. I also asked whether they went by the same pronouns online or face-to-face. My suspicion, based on anecdotal personal experience of GQNB acquaintances, was that many people would not, and the pilot survey confirmed this: nobody said yes, three people said no, and 12 said sometimes (the rest didn't respond). If they didn't say yes, I asked them in more detail about the difference between their online and face to face uses of pronouns.

For the last section, participants were asked what pronouns they preferred in certain spaces 3.2.3, whether they asserted their pronouns in those spaces, whether people in those spaces used the right pronouns for them, and whether they corrected people who mis-pronouned them 3.2.6. The spaces were with family, with friends, at work and/or school, and in LGBTQIAP+-specific spaces. Finally, participants answered in a free-response section why they went by different pronouns in different spaces if they did so.

The research questions and hypotheses for this project are detailed below.

1. Which pronouns are most popular?
    - Do GQNB people typically go by more than one pronoun?
    - Is there a difference between the pronouns people would go by in an ideal world and the ones they actually assert?
2. Why are pronouns chosen?
    - Ease of use?
    - Personal expression?
3. Do some pronouns get respected more than others?
    - Are innovative pronouns less likely to get respected?
    - Do GQNB people's pronouns get respected more in certain spaces?
4. Does use and experimentation continue throughout the lifespan or does it stop?

- Does use/experimentation relate to age?
- Does it relate to time spent IDing as GQNP?
- Does it relate to what pronoun is being used?

5. How is the pronoun talk social norm executed? Where?
    - How comfortable are GQNB people doing pronoun talk?
    - Does the company matter?
    - Does the modality matter? (Online more comfortable than offline?)

Q1 is the subject of 3.2.1. Based on Lodge (2020c) as well as previous years, *they* is hypothesized to be the most popular neutral pronoun. Based on both Lodge's results and anecdotal experience, I hypothesize that a significant proportion of participants will have sets of pronouns that they go by for accommodation purposes, as well as sets of pronouns that they would go by ideally if everyone was comfortable using all pronouns.

Q2 is the subject of 3.2.1. Based on a previous survey conducted in 2015, the hypothesis is that participants will choose their pronouns based both on practical reasons and for self-expression. Reasons for selection will likely be different between ideal pronouns and pronouns chosen for accommodation, here referred to as *auxiliary pronouns*. The nature of auxiliary pronouns as items for accommodation means that they will most likely be chosen with a more practical bent.

Q3 is the subject of 3.2.3. Again based on the previous survey, I hypothesize that some spaces, such as LGBTQIAP+ spaces and with friends, will have more people that respect participants' pronouns. I also hypothesize that less innovative pronouns will be respected more frequently than more innovative ones.

Q4 is the subject of Section 3.2.4. Previous lifespan change research [35] has found that young adults are more innovative with their use of language than older adults, even though older adults do participant in language change. As such, I expect younger people to be more experimental. From anecdotal experience, I also expect participants experiment with pronouns most early on in their GQNB identification.

[35] See 1.2.1 for details.

Q5 is the subject of 3.2.5 - 3.2.6 3.2.5 investigates general willingness to engage in pronoun talk; my hypothesis is that participants will be uncomfortable engaging in assertion and correction, particularly directly. In developing the questionnaire, I drew a distinction between pronoun talk conducted online, which I expect to be easier, vs pronoun talk face-to-face, which I expect to be harder. 3.2.6 discusses the specific spaces in which people conduct pronoun talk. I hypothesize that participants will be more comfortable doing pronoun talk in spaces where it is an acknowledged norm. Again, this is based off of the results of the 2015 survey.

Because of the large number of unranked categorical variables that all had to be investigated separately, regression analysis was not practical, nor were many other statistical tests. Kendall's Rank Correlation Tau was used for correlation analysis, and chi-squared tests for proportion tables. In some cases, the standard deviation and standard error were individually computed and used to give information about the scale of differences between populations relative to the spread of the data.

3.1.1 Introduction to the Participants

Some filtering of participants was conducted. People who checked any pronouns/all pronouns/no preference were only shown the demographic sections and the 'which pronoun' questions. They were not given the later questions because it would be difficult for someone without a pronoun preference or who preferred pronoun avoidance strategies to answer questions about why they had chosen their pronouns. Therefore, they were excluded from the part of the analysis that involved the later questions.

Eight participants who completed the survey were disqualified. Six participants clearly identified themselves as binary-gendered; one used the words "binary trans man", and the others indicated on the question about how long they had identified as not wholly or always binary in gender that they never had done so. Another two were removed because they expressed hostility towards the idea of gender diversity in general.

After exclusions, this left 1,720 participants for the pronoun section. 208 of those had no pronoun preference[36], leaving 1,513 participants for analysis beyond the first pronoun questions. Graphs were created with ggplot2 (Wickham 2016).

[36] More accurately, they checked "No preference/any pronouns/all pronouns". Surprisingly, half of the people who checked this option checked at least one pronoun set as well. I assumed when designing the survey that this option would be exclusive, but this was apparently not the case for everyone. There were 104 participants who gave both no preference/any preference/all pronouns and one specific pronoun set.

As stated in the intro, it is common in GQNB spaces for people to refer to what pronouns they "use", meaning the pronouns they use to refer to themselves and wish for others to use when referring to them. However, it is also common to say that people do or don't "use" those pronouns for you – meaning whether or not people use the pronouns in reference to the other person. This can be ambiguous. For this reason, I refer to participants as "going by" pronouns when they've chosen a pronoun set for themselves, following Sakurai (2017)'s usage. I also refer to pronoun "selection" or "choice" to refer to a person's decision to go by a particular set of pronouns, and refer to pronoun "selectors" to refer to people who go by that set of pronouns. Generally, "use" is reserved in this chapter for what it normally means in linguistics: the appearance of a form in an utterance of some kind. Participants, however, often used "use" where I use *go by* or *select*, so when participants' own comments are quoted, this ambiguous usage sometimes occurs. Context usually disambiguates the two meanings in these quotes.

Demographics of Participants

Table 3.1: Participant Characteristics Summary

Country	USA: 1172	UK: 135	Canada: 105		
Age Group	18-21: 795	22-25: 532	26-29: 244	30-34:95	>35: 46
Age	Min: 18	Median: 22	Mean: 22.94	Max: 79	
ID time	Min: 1 week	Median: 5 years	Mean: 5.2 years	Max: 75 year	
Gender	feminine: 171	masculine: 142	multigendered: 380	null: 464	
GQ/NB	nonbinary: 85	genderqueer: 131	Both: 278	Neither: 454	
L1 English	Y: 1479	N: 240			
Other Lang	Y: 475	N: 1234			
Language	Spanish: 124	French: 122	German: 92		

Participants inside the USA greatly outnumbered those outside it. There were 52 countries represented total: Argentina, Australia, Austria, Belgium, Bosnia and Herzegovina, Brazil, Bulgaria, Canada, Chile, China, Colombia, Czech Republic, Denmark, Dominican Republic, Ecuador, Finland, France, Germany, Greece, Guatemala, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Kyrgyzstan, Lebanon, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Norway, Peru, Philippines, Poland, Portugal, Romania, Russian Federation, Slovakia, South Africa, Spain, Sweden, Switzerland, Turkey, and Ukraine. Linguistically, the sample was also not especially diverse, which is unsurprising as the survey focused on English. Unsurprisingly, the survey participants were young. Mean age was 22; more 18-year-olds took the survey than people over 35 overall. Although this is obviously a problem, it is a very common issue with studies on GQNB people because younger GQNB people are so much more visible and accessible. As such, it is less possible to generalize about this age group.

With respect to gender, the participants were diverse and used many creative words to talk about themselves. The mean number of labels was 2, but the maximum was 15. In addition to the provided labels, there were 53 write-ins. All but 16 of these also checked one of the genders I provided. Write-in genders included existing queer terms that are not usually used exclusively as genders, like "butch" (given several times), "faggot", "lesbian". It included neo-identities like "genderfaun", "Lunarian", "gendervague", "voidgender", "star-gender", "mavrique", and "abrogender". And it included participant musings: "I'm a man because I am gay, if I was not gay I would be genderless". "The phrase 'I'm a woman in the same sense that Bernie Sanders is a Democrat' is applicable." "nonsenary, renegade, queer-coded villain".

Labels selected by more than 10% of participants were: nonbinary (61.2%), genderqueer (21.5%); transmasculine (19.9%); agender (19.3%); and genderfluid (15.6%). The predominance of transmasculine as opposed to transfeminine (2.7%, the second-lowest) probably indicates that significantly more AFAB[37] than AMAB[38] people took the survey. *Transmasculine* and *transfeminine* are umbrella terms that can be used in a variety of ways, but they are usually used in ways that are restricted based on birth assignment in similar ways that *trans man* and *trans woman* are. On the other hand, two participants indicated that they

[37] Assigned female at birth.

[38] Assigned male at birth.

were *both* transmasculine and transfeminine, meaning that not all participants may be using the terms in this sense.

I coded categories as well to identify how many participants expressed a link to masculinity or manhood and to femininity or womanhood. The values for this category included man, woman, demiboy, demigirl, and any write-in candidates expressing such links. However, I did not include transmasculine or transfeminine because it is sometimes used to indicate something about the person's birth assignment rather than their current gender expression. For multi, I included anyone who gave their gender as genderfluid or bigender, as well as anyone who gave multiple labels that did not seem to be synonymous. So, someone who gave woman and demigirl would not necessarily be counted as multigender, but someone who gave demigirl and demiboy would. The value I have here labeled "null" includes people who gave agender, genderless, or neutral – in other words, whose labeling of their gender on around the idea of absence in some way.

None of the categories in Table 3.1: Gender are exclusive. Because GQNB identity can include multiple genders, many participants chose labels that might seem contradictory to someone unfamiliar with this labels, such as "agender" and "man" (not to mention "man" and "woman", chosen by 12 participants). Under the framework of GQNB genders, these are not contradictory, because the GQNB understanding of gender is not restricted. A person might feel that they have no internal sense of gender, but attracted to certain aesthetics of manhood, or more comfortable being sorted with men than sorted with women. This person could identify as an agender man, an agender demiboy, a transmasculine agender person, or other labels. Someone could identify as a man part of the time and a woman other times, or as a mix of man and woman, or as a man and a woman at the same time. This kind of fluidity is central to the concept of gender as GQNB people understand it. The language used is for shaping individualized expression, not exclusive categories.

All in all, participants skewed young, American, L1-English, European-language speaking, and probably AFAB. These characteristics should be born in mind as the results will apply less readily to GQNB people who do not fit those characteristics.

3.2 Results

Section 3.2.1 General Pronoun Choice will discuss what pronouns and pronoun combinations participants selected. Section 3.2.2 Reasons for Selection will discuss participants' reasons for selecting their pronouns. Section3.2.3 Pronouns in Spaces will discuss differences in participants' pronoun choices based on environment. Section 3.2.4 Stability will discuss participants' behavior with regard to pronouns over time. Section 3.2.5 General Pronoun Talk will discuss participants' comfort with asserting and correcting pronouns, as well as what strategies they employed. Section 3.2.6 Pronoun Talk in Spaces will discuss what spaces participants asserted and corrected their pronouns in most frequently. Section 3.2.7, Other Languages, will discuss the results of the two questions about participants' gendered language preferences in languages other than English.

3.2.1 General Pronoun Choice

Participants generally demonstrated a preference for *they*, much like Lodge (2020b)'s participants did. 72% of participants chose *they* as at least one of their ideal pronouns.[39] In order, the rest were *he*, at 29%, *she*, at 22%, then all neopronouns, at 18%, followed by *it*, at 8%. Individual neopronouns were each less popular than *it*, generally at about 5% or under (see next paragraph). None of them were even half as popular as *they* in the ideal pronouns field. This compares to 77% *they* in Lodge (2020b)'s survey, 30.5% *he*, 29% *she*, and about 6% *it*. Lodge does not code for neopronouns as a single category, though the most popular one, *xe/xem*, was 7.4%. My participants' ideal pronouns are mostly roughly aligned with Lodge's, except that neopronouns seem to be more common in my survey. This may be due to the difference in question wording: Lodge asks "What pronouns would you be happy for people to use for you?" while I asked "What pronouns would people ideally use for you?" It is possible that my focus on a hypothetical ideal lead participants to give pronouns that might be popularly considered "difficult" that they would not think to give otherwise.

[39] Between ideal and auxiliary, the total was 83% of participants who went by *they* somewhere in their pronouns.

Of the 18% who went by neopronouns for their ideal, only 73 (4.2%) went by just neopronouns; most selected *they*, *he*, or *she* as well. 97 selected *xe/xem/xir* as one of their sets (5.6%), 80 selected *ey* or *e/em* (4.7%), 54 *ze/hir/hirs* (3.1%), and 29 *fae/faer* (1.68%). These sets were given as checkboxes because they were the most

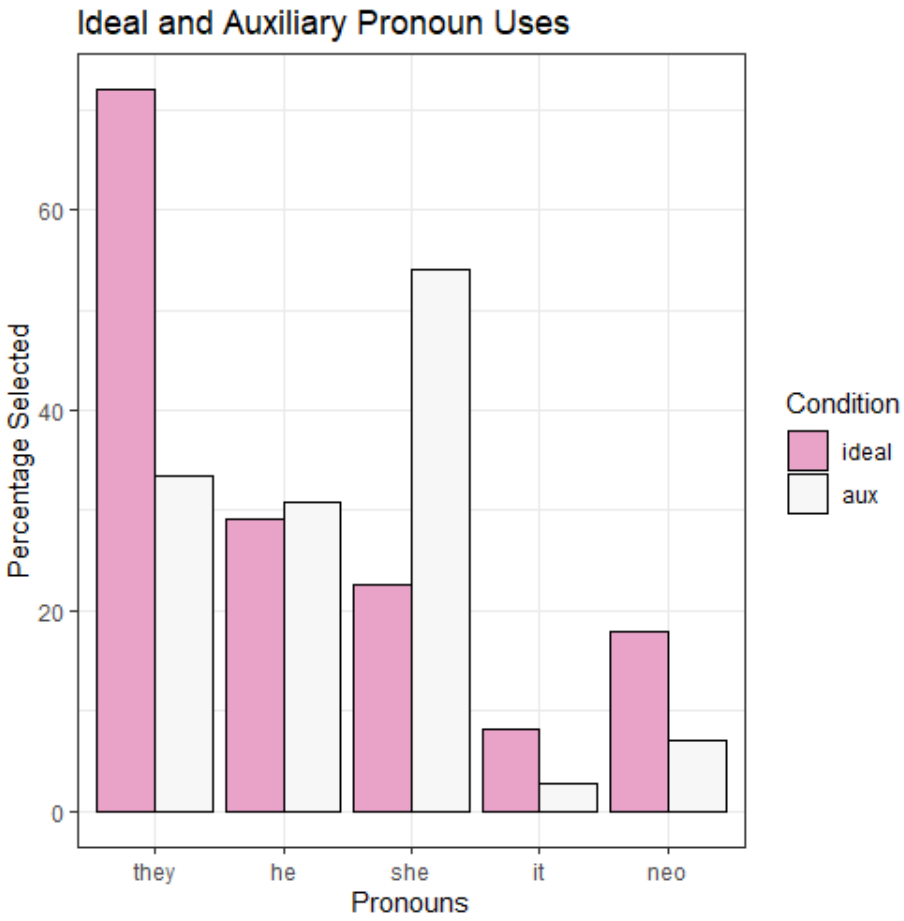

Figure 3.1: Which Pronouns did Participants Select?

frequently-occurring pronouns in Lodge's participants across years. 153 (8.89%) participants wrote in their own pronouns, so providing your own neopronoun was rather more popular than any of the provided options. But there were 94 total distinct write-in options, and no single option received even 1%. The most popular write-in, given by 13 people, was *xe/xem/xyr/xrys/xyrself* – a spelling variant of the most popular one I provided. *Ae/aer/aerself*, very visually similar to *fae/faer*, got another 12. *Ze/zer/zerself* and spelling variants with *zie* or *zir*, very similar to *ze/hir/hirself* but without the initial alternation, was selected by 10 participants. *Ne/nim/nir* was selected by 8, *ve/ver/vers* by 6, and *ze/zem/zir* by 6. These were the only write-ins with >5. Most pronouns were written in only once, especially nounself pronouns, which tended to be extremely individual.

Only *bun/bunself* (4), *kit/kitself* (3), *void/voidself* (2), and *star/starself* (2) had more than one selector. This suggests that neopronouns in general and nounself pronouns in particular are used to express something very individual about the selector.

Neopronouns were also most popular with young participants. The older the participants, the less frequently they gave neopronouns. Participants 18-21 years old gave at least one neopronoun 20.75% of the time; 22-25, 17.29%; 26-29, 13.98%; 30-34, 13.68%; and 35+, 8.70%. This was echoed in the trends for *they*, which was in the mid-70s for all participants under 30, but dropped to 64% in the second oldest age group and 53.17% in the oldest. Overall, the older participants got the less frequently they gave a neutral pronoun. 90% of participants 18-21 gave one; 88.16% of 22-25; 88.11% of 26-29; 80% of 30-34; and 78.26% of 35+. Older participants less frequently gave innovative forms. It is not clear from the data whether this indicates age-grading or change in progress, because determining the difference would require more data about the current GQNB cohort's pronoun behavior as they age (Newbrook 1987) (Sankoff 2006) (S. E. Wagner 2012). However, older participants did not give neopronouns more frequently in their lists of pronouns they had tried and abandoned. This suggests that older participants were less likely to have tried innovative forms overall, rather than suggesting that older participants were trying them and abandoning them.

We can also look at what pronoun combinations participants chose, as well as how popular individual pronouns were. Figure 3.2 displays what lists participants gave as their whole choice of pronoun, as opposed to Figure 3.1, which shows how frequently any individual pronoun was selected by participants.

The values coded are *they*, *he*, and *she* (with no other pronouns selected), an 'other' that includes both *it* and neopronouns (only one pronoun selected), *he* and *they* selected, *she* and *they* selected, *he*, *she*, and *they* all selected, and then two multiple categories. Multiple mixed describes any combination of he and/or she with one or more neutral pronouns other than they. Multiple neutral describes any combination of 2+ neutral pronouns with no gendered pronouns.

They alone was easily the most popular ideal pronoun, followed by multiple mixed, then *she/they*, *he/they*, other neutral pronouns, and then multiple neutral. Just *he*, just *she*, and *he*, *she*, *they* were all relatively unpopular ideal pronouns. As auxiliary pronouns, though, just *she* was the most popular, followed by just

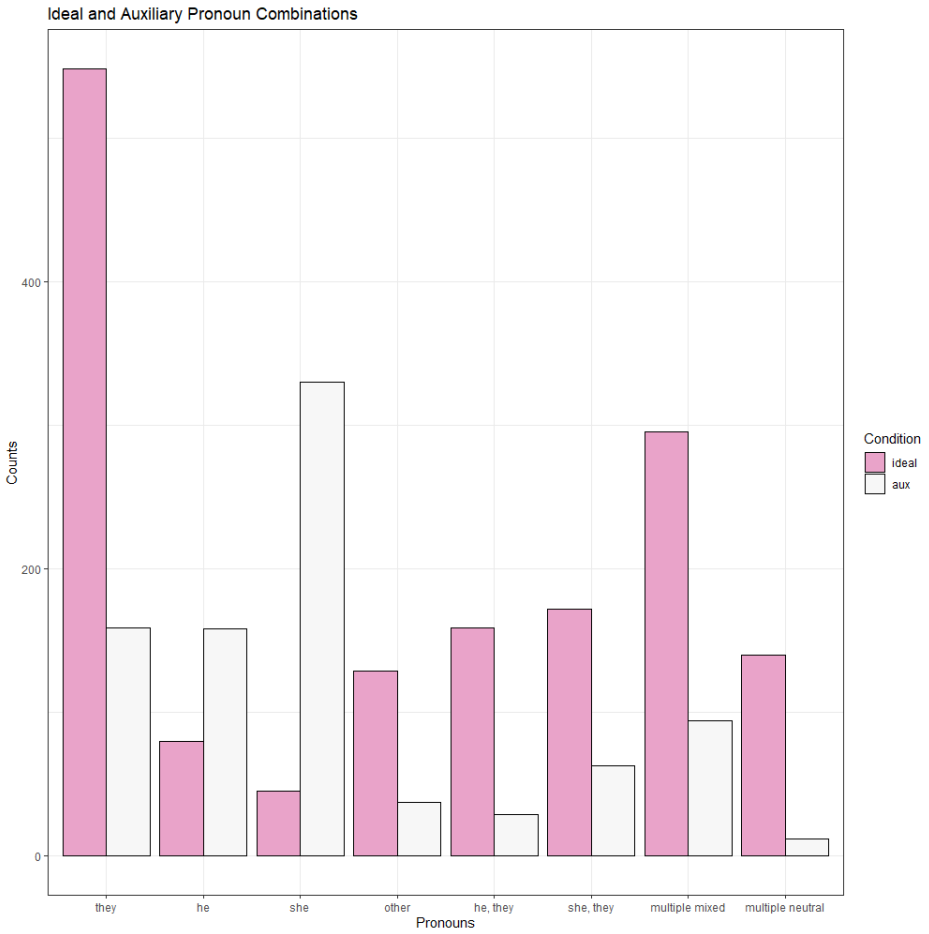

Figure 3.2: Which Pronoun Combinations did Participants Select?

he and just *they*, then she/they, then multiple mixed, then all other options, which were very unpopular compared to others. Broadly speaking, things that are popular as ideal pronouns are often not popular as auxiliary pronouns, and vice versa. This suggests that speakers desire different things from ideal and auxiliary pronouns, which is not surprising.

The types of pronouns that people chose for their ideal and auxiliary pronouns backed this up. While 18% of participants had at least one neopronoun in their ideal pronouns list, only 7% of participants had one in their auxiliary pronouns list. And while 88% of participants listed a neutral pronoun among their ideal pronouns, only 39% listed a neutral pronoun among their auxiliary pronoun. Both neopronouns and neutral pronouns represent innovation com-

pared to gendered paleopronouns. These results suggest that GQNB people are taking into account the potential difficulty of the innovative forms they are using. In choosing pronouns, they strategize.

The distribution of *who* had auxiliary pronouns also backed this up. About 48.6% of participants have auxiliary pronouns, and about 51.4% do not have them. However, this was not equally distributed among all pronoun groups. Table 3.2 displays proportions of those who don't have auxiliary pronouns versus those who do (note that participants could choose multiple auxiliary pronouns), divided by pronoun group. A chi-squared test was performed and the distributes differed from expected values (X-squared = 167.74, df = 11, p-value < 0.01) Bolded cells differ by more than two standard errors on either side (SD = 16.15, SE = 3.30) from the expected value (50%).

Table 3.2: Proportions of Auxiliaries

Ideal Pronoun	**No Aux**	**Yes Aux**
binary, other	47.89	52.11
binary, they, other	54.68	45.32
he	47.5	52.5
he, she	55	45
he, she, they	**67.69**	**32.31**
he, they	**65.41**	**34.59**
none	**44.37**	**55.63**
other	**13.18**	**86.82**
she	53.49	46.51
she, they	**77.33**	**22.67**
they	**43.61**	**56.39**
they, other	**35.71**	**64.29**

People who go by *he*, *she*, *they* are less likely than usual to have auxiliary pronouns, as were people who go by *she*, *they* and *he*, *they*. Most likely, since these pronouns include one or two of the most popular binary options and the most popular gender-neutral option, participants are less likely to see the need for an auxiliary pronoun, since all situations are covered. On the other hand, people who would ideally only go by neopronouns or *it* are exceptionally likely to have auxiliary pronouns: 86.82% of neopronouns or *it* selectors had auxiliary pronouns. This is true to a lesser extent with *they*, other, just *they*, and no pronouns as well. Innovative pronoun selectors are especially aware of the

pushback their pronouns receive, and accommodate speakers unfamiliar with the culture by offering other pronouns.

3.2.2 Reasons for Selection

Participants' motivations for selecting their pronouns reinforced the above. I asked participants to think about the process of choosing their ideal and auxiliary pronouns and rank the several factors as most important, very important, somewhat important, slightly important, or not important. The factors were "easy for me to use", "easy for others to use", "doesn't draw a lot of attention", "is unusual or unique", "expresses something about my gender", "expresses something else about my identity", "sounds aesthetically pleasing" and "sounds like me".

The rankings for the factors were converted into numbers (most=4, very=3, somewhat=2, slightly=1, not=0). The mean rating for all factors put together was 2.04 and the median was 2, "somewhat important". The standard deviation was 1.48 and the standard error was 0.01. A chi-square test was run separately on the distributions of ratings and factors in ideal and auxiliary pronouns. Both were statistically significant (ideal set: X-squared = 6269.66, df = 28, p-value < 0.01; auxiliary set: X-squared = 2762.5, df = 28, p-value < 0.01). This indicates that, in both ideal and auxiliary pronouns, distributions deviated from the expected values if no effects were present.

Figure 3.3 below displays the frequencies of these ratings per factor and by pronoun condition (ideal or auxiliary). Table 3.3 shows the mean rating of each factor in ideal and auxiliary conditions.

Table 3.3: Means of Factors of Choice

factors	ideal mean	ideal SD	aux mean	aux SD
aesthetically pleasing	1.89	1.29	1.03	1.27
easy for me	2.74	1	2.43	1.23
easy for others	2.16	1.16	3.05	1.16
expresses gender	3.05	1.06	1.85	1.37
expresses identity	2.06	1.43	1.48	1.37
inconspicious	1.66	1.26	2.69	1.4
sounds like me	3.35	0.96	1.87	1.46
unique	0.35	0.8	0.261	0.7

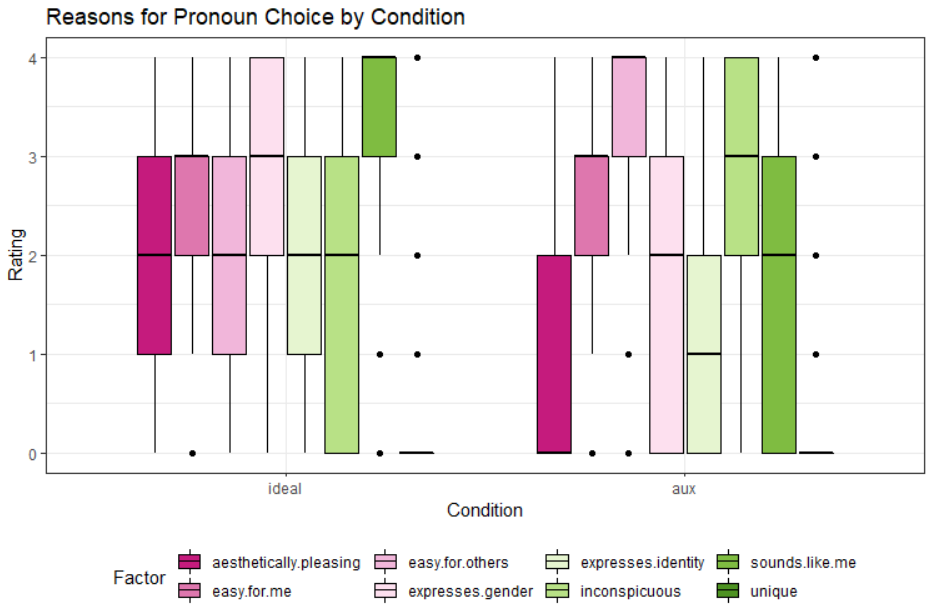

Figure 3.3: Factor Rating Distributions for Ideal and Auxiliary Pronouns

Uniqueness should be discussed first, since it was so low. In both conditions, it had the lowest mean, well below 1. Its standard deviation was also the lowest of all factors in both ideal and auxiliary conditions. Very few participants considered this an important factor for either their ideal or their auxiliary pronouns and there was high consensus among participants that it was not important.

For ideal pronouns, the highest-rated factors were "sounds like me", and "expresses gender". These both had means in the 3s. In order of importance, "easy for me", "easy for others", and "expresses identity" were of middle-range importance, close to the mean. "Aesthetically pleasing" and "inconspicuous" were least important other than "unique", with means in the 1 range. Of all ideal pronoun factors, identity expression had the highest standard deviation. It may be that participants with some other identity that could easily be expressed by pronouns (e.g. an affinity for something easily expressed by a nounself pronoun) valued this factor highly, while participants who did not have such identities valued it lower. By contrast, "sounds like me" had the lowest SD after "unique", very closely followed by "easy for me", indicating that many participants agreed on the importance of these factors.

For this participant pool, the most important characteristic for an ideal pronoun were to sound like the speaker and to express their gender. Ease of use was of moderate importance, as was expression of other aspects of identity, although this varied by participant. In choosing ideal pronouns, participants reported that they took into account both their own personal perceptions about a pronoun – its expressive value, aesthetic qualities, and relevance to their identity – and, secondarily, the practical considerations – ease of use and how others would react.

For auxiliary pronouns, the most important factors was "easy for others" with a mean in the 3 range. "Inconspicuous" and "easy for me" were in the 2's. The least important factors other than uniqueness were, in decreasing order, "sounds like me", "expresses gender", "expresses identity", and "aesthetically pleasing". The highest SD was "sounds like me" – in direct contrast to the situation with ideal pronouns. The lowest was "easy for others".

In other words, what participants tended to find important in auxiliary pronouns was ease of use for others, inconspicuousness, and ease of use for themselves. Expressive value was secondary.

The greatest discrepancies between factor choice in ideal and auxiliary pronouns were in "sounds like me", where the difference of the means was 1.48; "expresses gender", where it was 1.2 and "inconspicuous", where it was 1.03. Other than uniqueness, the smallest discrepancies were in "easy for me" where it was .31 and "expresses identity" where it was .58.

To sum up the difference, ideal pronouns were often chosen with strong personal and expressive value in mind. It is notable that "sounds like me" was even more strongly favored than "expresses my gender". When participants thought about what pronouns people would use for them in an ideal world, they wanted something that somehow felt like it belonged to them in an intangible, undefinable way – much like choosing a name. However, many still kept practical considerations in mind as secondary concerns. Auxiliary pronouns, on the other hand, served a primarily practical purpose. They gave speakers a pronoun that they could request with less negotiation than their ideal pronoun might have required.

In addition to the numbers, several participants consciously expressed this tension between practicality and identity when I asked them to explain why they chose their pronouns:

- I waffled between *xe/xir* and *they/them*, and ultimately went with *they/them* because I assumed that people around me would adapt to them more easily. (Age 25, ideal pronouns they/them)

- I present on a spectrum of androgynous-masculine generally so an entirely ungendered pronoun set for use around people who are also transgender, plus an auxiliary set for general public life in line with my presentation felt natural. (Age 19, ideal it/its, auxiliary pronouns he/him and they/them)

- *they* sound the most like me and i'm most comfortable with them. my alternate set (given to me at birth) is used only with family to avoid conflict and in any situation where i would feel unsafe/very uncomfortable using my preferred pronouns (Age 21, ideal pronouns he/him and they/them, auxiliary pronouns she/her)

- My alternate pronoun set is only used in a setting where I don't feel safe using my preferred pronouns–this often gives me gender dysphoria, but I don't want to draw attention to myself, make the situation awkward, or have to say a long explanation that may just make someone dislike me. This alternate pronoun set is based on my gender at birth and is assumed by others based on what I look like. (Age 20, ideal pronouns they/them and xe/xem, auxiliary pronouns she/her)

- I use *they/them* because it is the easiest and most accessible nonbinary form. I offer she/her as an alternate because I hate drawing attention to my gender. In a perfect world I would use they/them (or maybe ey/em?) but I'm not ready to deal with making my gender a focus in the way that insisting on they/them would cause. (Age 37, ideal pronouns they/them, alternate pronouns she/her)

GQNB people are aware of the social strictures around innovative forms and are aware that many people find them inaccessible. Many deal with this by selecting two different sets of pronouns: one that is centered on personal expression, and one that is easier to use and draws less attention when they're in spaces where it seems unsafe or inconvenient to ask for the pronouns that express their identity.

3.2.3 Pronouns in Spaces

In terms of numbers of pronouns selected per space, certain spaces patterned with ideal pronouns, while others patterned with auxiliary pronouns. Queer spaces and friends were similar in numbers to each other and to the ideal pronouns. There were larger numbers of pronouns used by friends, in queer spaces, and in ideal pronouns. Family and work had slightly smaller numbers of pronouns, and auxiliary even smaller (probably because so many people did not have auxiliary pronouns). And, indeed, when people who responded "no auxiliary pronouns" are removed, auxiliary, family, and work have similar means, contrasted with ideal, friends, and queer spaces, as Table 3.4 shows.

Table 3.4: Mean Pronouns per Space and in Ideal and Aux Conditions, With and Without No Pronouns

space	with zeros	without zeros
ideal	1.58	1.73
aux	0.66	1.29
family	1.13	1.3
work	1.22	1.35
friends	1.58	1.64
queer	1.59	1.63

In general, those who had auxiliary pronouns tended to have similar numbers of auxiliary pronouns and pronouns they wanted to go by in family and work spaces. Regardless, people also tended to have similar numbers of ideal pronouns and pronouns they wanted friends and people in LGBTQIAP+-specific spaces to use. This finding is related both to the general hypothesis that pronoun talk will be more comfortable in spaces where it is an acknowledge social norm and the hypothesis that some spaces are more likely to contain people who respect pronouns than others. For many participants, pronoun behavior was freer and closer to participants' ideal situation in some spaces than in others.

Which pronouns were selected also tended to pattern together. Table 3.5 shows each pronoun category's appearance by space (rows summed to 100), with the expected mean (16.5) subtracted from it. This means that any time there is a positive number, that pronoun appears more often than average in that space, and when there is a negative number, that pronoun appears less

often than average in that space. Bolded cells are 2+ standard errors above or below 0 (SE=1.68, SD=11.61).

Table 3.5: Pronoun Groups in Spaces

	ideal	friends	queer	aux	family	work
they	2.64	2.6	**3.66**	**-11.05**	1.27	0.98
he	**-6.56**	**-5.68**	**-5.43**	3.27	**7.56**	**6.93**
she	**-12.01**	**-12.11**	**-13.3**	**18.88**	**11.64**	**7**
other	**25.37**	-0.04	1.92	**-4.6**	**-10.14**	**-12.42**
binary, they	1.82	**6.34**	**5.45**	**-11.52**	**-3.37**	**1.37**
multiple mixed	**19.15**	**5.56**	2.4	**-5.24**	**-10.7**	**-11.07**
multiple neutral	**11.75**	**8.91**	**11.34**	**-14.22**	**-9.96**	**-7.73**
none	**-4.58**	**-12.57**	**-14.25**	**44.42**	**-6.82**	**-6.1**

They was less likely to appear as an auxiliary pronoun, probably due to its extreme popularity as a primary pronoun, and was very slightly (barely significantly) more likely than average to be selected in queer spaces. *He* was less likely than average to be selected as an ideal pronoun, with friends, or in queer spaces, and more likely than average to be selected with family and at work (it was not significantly above average for auxiliary pronouns. *She* was less likely than average to be selected as an ideal pronoun, with friends, or in queer spaces, and more likely than average to be selected with family, at work, and especially as an auxiliary pronoun.

The "other" category containing neopronouns and *it* was strongly likely to be selected as an ideal pronoun and less likely to be selected as an auxiliary pronoun or, more strongly, in work or family situations. Combinations of *he* or *she* with *they* were more likely to be selected in queer spaces and with friends, and less likely to be selected as an auxilary pronoun or with family. Combinations of gendered pronouns with multiple neutral pronouns or other neutral pronouns are more likely to be selected as ideal pronouns or with friends, and less likely to be selected as auxiliary pronouns, at work, or with family. Multiple neutral pronouns are more likely to be selected as ideal pronouns, with friends, and in queer spaces, and less likely to be selected as auxiliary pronouns, at work, or with family.

While there's a lot of variance at play here, a clear pattern emerges: some pronoun categories appear as ideal pronouns and in friends/queer spaces, and others appear more as auxilaries and in family/work spaces. Although some

pronoun categories don't rise to statistical significance, none of them rise above statistical significance in a way that is contrary to this pattern, with the exception of "none".[40]

[40] The pattern of "none" is different because so many participants did not have auxiliary pronouns, whereas most participants did not choose "no pronouns" as their ideal or space-specific pronoun.

Broadly speaking, he and she are biased towards auxiliary, family, and work, while other, multiple pronouns, and to a lesser extent *they* are biased towards ideal, friends, queer spaces. Although *they* doesn't break this pattern, it has the fewest statistically significant cells. This may be because *they* is so overwhelmingly popular among GQNB people that it is used in more broad circumstances than the others are. It is notable that he and she are non-innovative forms, while the others are innovative; and that friends and queer spaces are relationships of choice, while family and work generally involve less choice. Very broadly speaking, then, participants tended to select innovative forms in ideal pronouns and in spaces where they had some agency over whether the people around them were likely to respond well to those forms. They tended to select conservative forms as auxiliary pronouns and in situations where they didn't have much agency over the company they were in. Figure 3.4 shows this pattern.

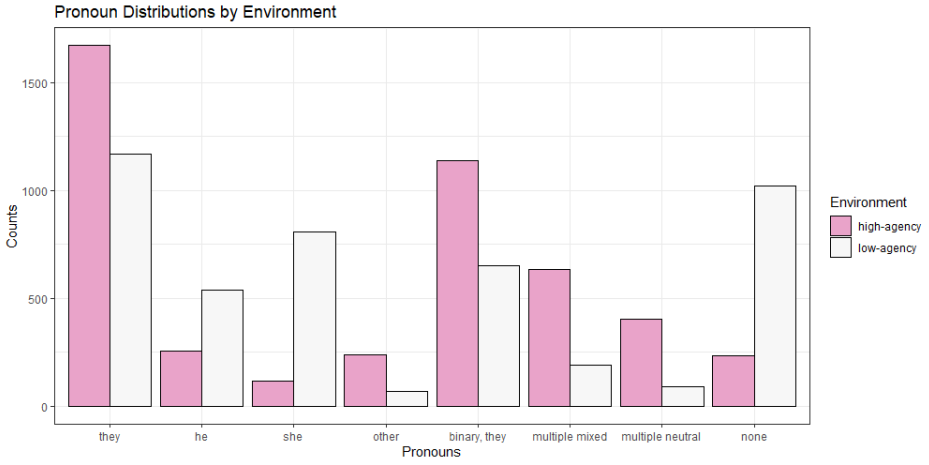

Figure 3.4: Pronoun Groups in Environments

Almost all pronouns are more common in high-agency environments than low-agency environments, with the exception of he and she, which appear the other way around. "None" also appears the other way around due to the preponderance of people with no auxiliary pronouns. In other words, GQNB participants who went by innovative pronouns are very aware of the fact that not every person in every space will be comfortable with being asked to use those pronouns, and that some may react poorly.[41]

[41] This is in contrast to the stigma, as shown in (Hekanaho 2020: p. 167), that GQNB people are "attention-seekers".

Although this was by no means the only reason why participants went by multiple pronouns in different spaces, many did express sentiments along this line:

- I'm afraid of workplace discrimination.
- i would prefer to use they/them all the time with everyone, but i don't yet feel comfortable with coming out to many people in real life yet especially my family and my father who i know would not understand and would continue to use she/her despite my complaints
- I am not in a work environment that is conducive to being out, even in a small way. So I try to avoid that conversation there.
- And if I'm specifically asked about my pronouns, I do mention that while I use she/her, it's not really a preference so much as a convenience.
- (some of) my professors and relatives have a hard time using gender neutral pronouns, and i have caved in using he/him with them.
- My family are caught in the UK media terf hate spiral and i don't care to tell them I'd like them to use anything other than she. It's just easier.
- I feel more listened to in queer spaces, and usually it's sort of been an overload of "she/her" outside of these spaces. So the balance is out of whack, and a group of queer friends is much more likely to respect my wish to only be "they/them" for a while and restore it
- The only reason why I don't use my neopronouns in family or work/school situations is because I don't think they would use them for me.
- Not fully out in real life situations due to perceived stigma.
- I sometimes don't come out to people when I'm not sure how they will react, especially when we'll have to spent some time in close quarters
- Using nonbinary pronouns in non-queer spaces requires explaining nonbinary gender, which I don't want to do.

- To be honest, if I don't tell people in a particular setting, then they can't hurt me by refusing or fumbling with it excessively. I'm alright with using the pronouns that people assume for me in non-personal settings, and at work I'd honestly prefer not to be fired! I also don't feel like talking about it 80% of the time, and so correcting people is more energy that I usually have to spare. […] I'd prefer people to notice my pins right off the bat, but when introducing myself, it's simpler to go with the one easier to use.

- I'm not willing to risk financial wellbeing over gender identity.

- They are places where I'm safe, and others where I'm not. I only use my ideal pronouns where I'm sure it is safe.

- There are times when I feel that explaining my pronouns would be more hard work than I am willing to invest, e.g. with people I won't ever speak to again, with people I believe won't understand the concept, or with people who might be openly prejudiced or disrespectful. In those cases, I don't offer my pronouns or my (lack of) gender unless it becomes relevant.

This theme was by no means the only one – participants also had many other, more complex and individual reasons for using different pronouns in different spaces, often related to the ways that they wanted their gender to be perceived by others. But it was a common theme. Of 1049 participants who gave a response to the free-response question "Why do you go by different pronouns in different spaces?", 640 (61%) mentioned either that the process of explaining their pronouns or gender was too difficult to engage with in all circumstances, or that they were afraid to be open about their pronouns. The fear took many forms, but many participants mentioned that they didn't want to deal with conflict or arguments or that they were afraid of hate crimes or discrimination. Many felt that they would lose employment or friends if they were open about their pronouns, while others just felt that people would see them differently or have an incorrect perception of them. Participants viewed only asserting their auxiliary pronouns in certain spaces, or allowing people to misgender them in certain spaces, as a way of negotiating safety in a situation where safety was by no means guaranteed.

Concerns that certain spaces were less safe or affirming than others was backed up by the data as well. Whether or not people respected participants' pronouns varied by space, as Figure 3.5 shows. Family and work/school pattern together, as do friends and in LGBTQIAP+-specific spaces. Within family spaces, the majority of participants, 55%, reported that the correct pronouns were never used for them. 28% said the correct pronouns were sometimes used, and 10% said they were always used. In work spaces, the numbers were 37%, 37%, and 12%. In other words, more participants had the right pronouns used for them sometimes, but not many more had the right pronouns used for them always. This differs strongly from with friends and in LGBTQIAP+ spaces. No affirming pronoun use was reported in these spaces, respectively, 5% and 2% of the time. Some affirming pronoun use was reported 18% and 16% of the time. Always affirming pronoun use was reported 38% of the time.

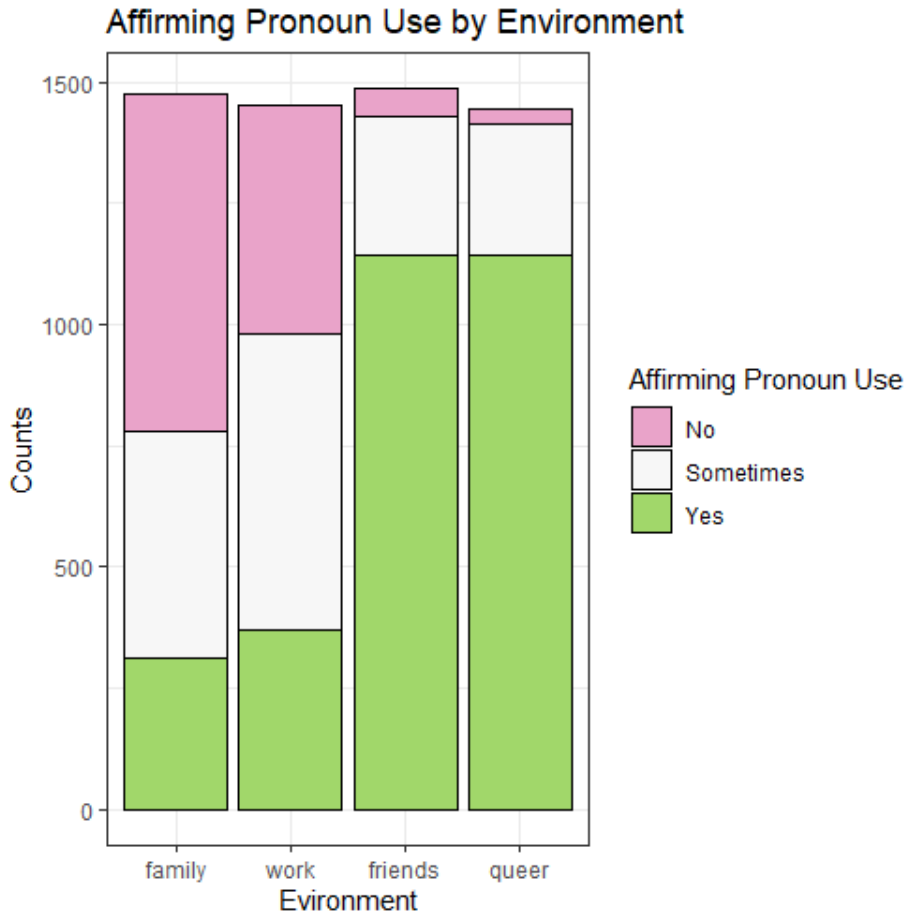

Figure 3.5: Affirming Pronoun Use by Environment

In other words, in family and work/school spaces, the plurality of participants did not have their pronouns respected all the time. In LGBTQIAP+ spaces and with friends, the plurality of participants did have their pronouns respected all the time. It's noteworthy, though, that no space reports >50% always-respected. Many participants still struggled to have their pronouns respected all the time even in LGBTQIAP+ spaces.

The picture changes a little in a by-pronoun analysis. Because of the similarities between work/school and family, and LGBTQIAP+ and friend spaces, they have again been combined into "high-agency" and "low-agency" social spaces. Table 3.6 shows each ideal pronoun type broken down by never/sometimes/always pronoun respect, for high- and low-agency environments. Percentages sum to 100 by row within each agency condition, not across agency conditions.

Table 3.6: Pronouns Respected in High and Low Agency Environments

Agency	High			Low		
Pronoun	No	Sometimes	Yes	No	Sometimes	Yes
they	2.55	18.73	78.73	47.11	37.9	14.99
he	3.82	10.19	85.99	39.74	30.77	29.49
she	3.85	6.41	89.74	22.78	13.92	63.29
other	3.78	31.93	64.29	35.17	38.14	26.69
he, she	0	10	90	27.5	27.5	45
he, they	0.32	18.79	80.89	40.06	44.23	15.71
she, they	2.65	16.89	80.46	23.36	35.2	41.45
he, she, they	1.64	22.13	76.23	36.89	33.61	29.51
binary, other	2.22	27.41	70.37	41.18	27.94	30.88
they, other	2.62	15.36	82.02	41.44	43.73	14.83
binary, they, other	4.62	13.85	81.54	36.6	40.21	23.2
none	14.61	32.58	52.81	54.55	19.32	26.14

In high-agency environments, all pronoun groups report a majority of "yes, always" for pronoun respect. There are, however, differences. People who preferred pronoun avoidance to use of any pronoun only reported it 52% of the time, and they also had the highest rates of "no, never" in this environment at 14%. People who went by *it* or neopronouns were the next lowest, at 64%, but their "never" rates remained low, at 3.78%. Highest rates of "yes, always" in this environment were *he*, *she*, and *he/she*.

In low-agency environments, by contrast, almost no-one reported a majority of "yes, always" for pronoun respect. The exception was *she*-users.[42] As in

[42] In other words, people in their life are assuming that they are women and are using *she* for them. Anecdotally, this happens much more frequently to AFAB people than AMAB people because of the system of assigning gender based on physical characteristics.

low-agency spaces, *he, she* also had high yes-rates. The lowest yes-rates came from *he, they*; *they*; and *they, other*. *He, they's*, sharp contrast to *she, they,* the third highest yes-rate, is yet another indication that participants may be majority-AFAB. The largest "no, never" once again belonged to pronoun avoidance selectors, followed by they-users.

It seems that even in high-agency spaces, participants with only binary pronouns had a better chance of getting their pronouns respected all the time, possibly indicating difficulty with other pronouns. However, participants usually had their pronouns respected sometimes or all of the time in those high-agency spaces. But in low-agency environments, participants' chances of having their pronouns respected may depend not only on how familiar those pronouns are, but also how congruent they seem with that person's appearance according to cisnormative standards. This adds another layer of complexity to a person's decision in requesting pronouns. Pronoun avoidance strategies seemed to be respected the least, even in LGBTQIAP+-friendly spaces.

All in all, participants' behavior varied based on their environment. In spaces where they had high agency, they tended to go by pronouns closer to their ideal pronouns, versus low-agency spaces, where they tended to go by their auxiliary pronouns more. They also reported more respect of their pronouns in high-agency spaces compared to low-agency spaces. The perception, therefore, is that cisgender people who are not familiar with GQNB social conventions or may not be willing to use certain pronouns, or might react in an unfavorable manner to pronoun talk.

3.2.4 Stability

Over the lifetime, choosing new pronouns was common; generally 1, 2, or 3 times was the most common. Only 5.7% of participants had never chosen new pronouns, and only 7.10% had chosen new pronouns 4+ times. 43.24% reported choosing new pronouns once, and 43.97% had chosen 2-3 times. I also asked participants which pronouns they had tried and no longer went by [43]. They listed an average of one set (median: 1, mean: 0.96), although some listed as many as 5. 52% of all participants, 892 people, listed at least one abandoned pronoun. Participants also tended to list fewer abandoned pronouns compared to their reported number of times choosing new pronouns. For instance, the

[43] I will subsequently refer to these as 'abandoned pronouns'

median number of abandoned pronouns for people who said they had changed pronouns 4+ times was 2. This may indicate that many participants are adding, rather than switching, pronoun sets. The fact that the mean number of ideal pronouns is around 1.5 (1.58 for the whole dataset, 1.65 for the set that only contains those who did not list any/all as their ideal pronoun) and that around half of participants have 1+ set of auxiliary pronouns does suggest that multiple pronouns are common.

So, over time, the average participant chose new pronouns 1-3 times, and abandoned a pronoun once. An example of this would be someone who switched from *she* to *they* and then added *ze* as well. This person would have have chosen new pronouns twice, abandoned one set and would have two current pronoun sets. By contrast, a person who switched from *she* to *she*, *they*, and *ze* would have chosen twice, would have three current pronoun sets, and would have abandoned no pronouns. These would both be very typical participants for this dataset.

Most of my participants are young. It is possible, therefore, that the lack of abandoned pronouns is a reflection of a simple lack of time and life experience in which to try and discard pronouns. One might accordingly assume that the older a participant was and the longer they had identified as GQNB, the more pronouns they would collect and discard, rather like a hermit crab moving into increasingly larger shells. This assumption was tested by performing correlation tests using Kendall's rank correlation tau. Both age and time spent identifying as GQNB were tested for correlation with total numbers of abandoned pronouns.

For time spent IDing as GQNB and abandoned pronouns there was a statistically significant but weak positive correlation between the two (p-value < .01, correlation coefficient=0.19). In practice, people who had 3+ past pronouns tended to have intermediate amounts of time identifying as GQNB (7-15 years), as Figure 3.6 shows. This may suggest that GQNB people do not continue pronoun experimentation throughout the lifetime; rather, they go through a period of experimentation during which they may try several pronouns and then settle on some pronouns they feel comfortable with. Or it might indicate that older individuals are less likely to use genderqueer pronouns, a possibility which will be discussed in greater detail later.

Increase in age was actually *inversely* correlated with number of abandoned pronouns, as Figure 3.7 shows, though the effect was very weak (p-value <.01,

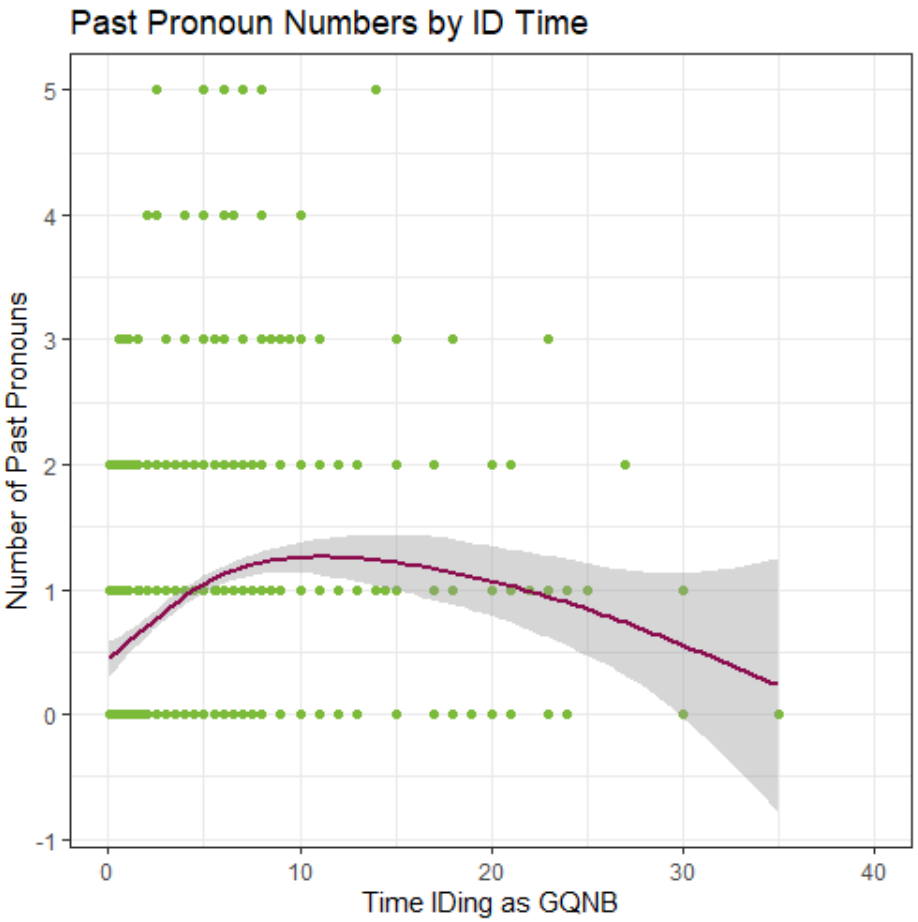

Figure 3.6: Correlation of Past Pronoun Numbers and ID Time

correlation coefficient=-0.079). It is possible that many older long-identified GQNB people did not have access to large numbers of pronouns they felt comfortable experimenting with when they were at the stage where pronoun experimentation would have been common. This would align with the fact that older GQNB people did not have higher rates of past innovative forms.

Some pronouns were abandoned more than others were. The most-listed abandoned pronoun was *she*, with 61% of participants who had dropped a pronoun set listing it as an abandoned pronoun. 26% of participants with abandoned pronouns had abandoned *he*, 25.67% had abandoned one or more neopronouns, 16.25% had abandoned *they*, and 8.4% had abandoned *it*. Table 3.7

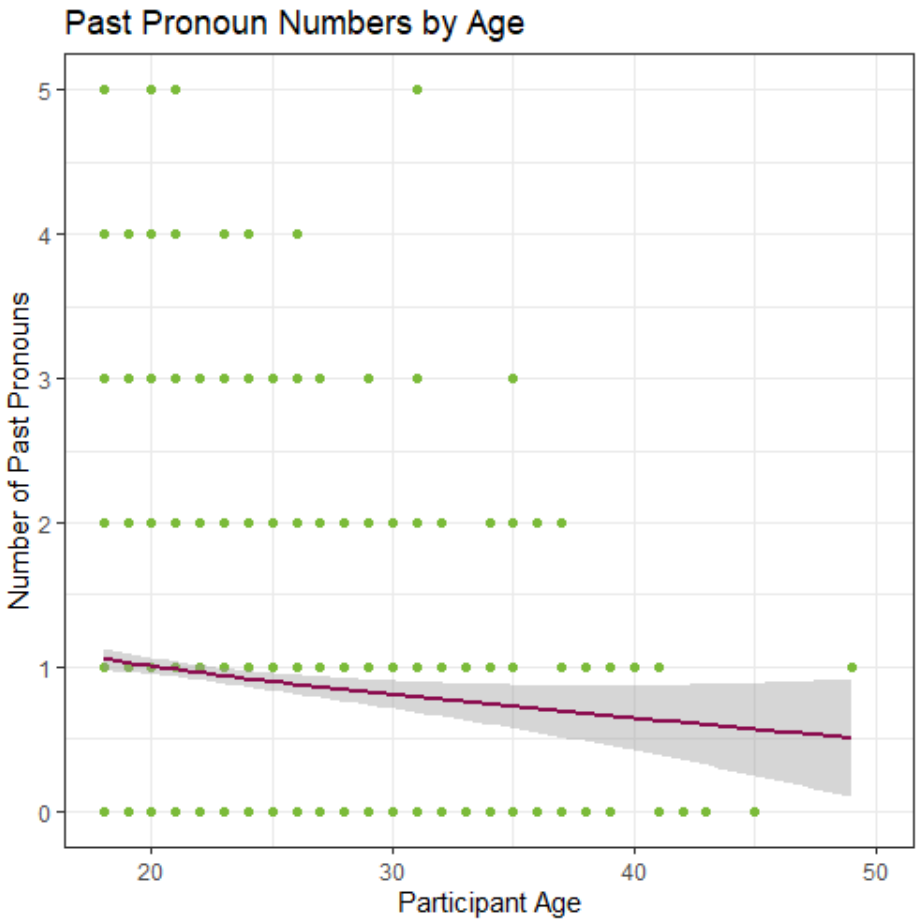

Figure 3.7: Correlation of Past Pronoun Numbers and Age

compares the abandonment rates of each pronoun with its current rate of use in the participants (SD = 20.27, SE = 6.76).

Only *she* and *they* have a difference of over two standard errors between there current usage and their abandonment rates. *She* has a notably high abandonment rate compared to its current go-by rate, and *they* has a notably low one. The very low abandonment rate of *they* is not surprising given how many participants gave it as their current pronoun; it would be hard to scrape up large numbers of they-abandoners among a pool that contains roughly 70% *they*-users. The high abandonment rate of *she* may be an artefact of the possible skew towards AFAB people in this data, as some participants may have listed their AGAB[44]-normative pronouns as past pronouns.

[44] Assigned Gender At Birth.

Table 3.7: Proportions of Pronouns in Ideal vs Past

pronoun	ideal	past	difference
they	72	16	56
he	29	26	3
she	22	61	-39
neo	18	26	-8
it	8	8	0

Neopronouns are worth investigating in more detail, as they are the only category in this list composed of multiple pronouns. Theoretically, a person could try *ze*, decide they disliked it, and abandon it in favor of *ey*. This person would then be listed as both a neopronoun selector and a neopronoun abandoner. The number of participants who did this was, however, small, with only 4.84% of all participants listing neopronouns in both their past and ideal pronouns. People who tried a neopronoun and abandoned it to move onto paleopronouns were 10.99% of all participants, and 14.17% of all participants had ideal neopronouns without having abandoned one in the past.

As to whether participants planned to change their pronouns in the future, uncertainty was the most common response. Only 6.15% of participants said they thought they would change pronouns in the future. 30% said no, but 64% said maybe. These responses did not seem to correlate with participants' age or time IDing as GQNB. However, I did allow participants to check "I am still unsure of my pronouns" during the pronoun selection section. For those who did check this option during the ideal pronouns question, only 6.06% said they couldn't see themselves changing their pronouns in the future, while only 33.11% of participants who did not check this couldn't see themselves changing pronouns in the future. Still, the majority of participants thought it was possible that they might change their pronouns without having any definite plans to do so. Thus, even participants who have finished experimenting with their identity are not always necessarily closed to the idea of new pronouns.

As a summary: most participants added new pronouns 1-3 times. About half of participants had abandoned at least one pronoun set, and about half hadn't. The average number of abandoned pronouns sets was 1. People who had identified as GQNB for intermediate amounts of time had the highest numbers

of abandoned pronouns, indicating the highest level of past experimentation. Older participants had the lowest numbers of abandoned pronouns, indicating the lowest numbers of experimentation. *She* was particularly frequently discarded, while *they* was very infrequently discarded. And most participants had no definite plans to change their pronouns in the future. All in all, participants seemed to have a period of experimenting with pronouns for some time after they become aware that they are GQNB, which may including abandoning or supplementing their AGAB pronouns. The experimentation then decreases as they age. This is a similar pattern to the adolescent peak seen in Tagliamonte & D'Arcy (2009), where adolescents go through an intensified period of linguistic experimentation, using many innovative forms, and then stabilize somewhat as they age (100). Experimentation by younger members of the community followed by relative stability in adulthood is a common pattern of age grading S. E. Wagner (2012: p. 373). A possible conclusion is that pronoun experimentation is age-graded, or that it has a similar pattern to age-grading but with respect to amount of time identifying as GQNB rather than age per se.

3.2.5 General Pronoun Talk

Participants were asked to give their correction strategy when someone used the wrong pronouns for them. The options for this question in the survey were based on the strategies given in Gunn (2020: p. 68) as well as past experience in witnessing mis-pronoun corrections, with expansions from pilot study participants. The options were as follows:

- Directly tell them during the interaction
- Come up with a way to refer to myself in the third person around them
- Ask a friend to refer to me in the third person around them
- Other (please describe)
- I don't correct people when they use the wrong pronouns
- People never use the wrong pronouns for me

Participants could select multiple options, although the last two were exclusive. About 23% of participants who responded said they never corrected

people at all. Another 6.8% said that people never used the wrong pronouns for them, while the remainder corrected people at least some of the time. A further 4.18% of participants selected correction options but also wrote in the Other box that they only issued corrections when they felt safe to do so or felt the interaction would be worth the energy spent on it. The methods participants selected, as well as Other text inputs, were coded according to whether they were direct or indirect. This was determined based on whether the method involved direct pronoun talk (e.g. "Please use he/him pronouns for me" or not (e.g. referring to oneself in the third person without directly drawing attention to the pronouns). The responses were also coded for whether people preferred to do the correction themselves or ask a friend to do it for them, and whether the correction was immediate or later. Table 3.8 shows how often participants preferred which methods.

Table 3.8: Methods of Correction

Directness	%	Person	%	Time	%
direct	32.78	do it myself	41.19	immediately	33.24
indirect	13.77	ask a friend	3.58	later	24.3
both	21.65	both	22.91	both	10.52
neither	31.39	neither	31.39	neither	31.52

The most popular options were to correct the person yourself, directly and immediately. An example of a method that used all three of these would be hearing the wrong pronouns used for oneself and interjecting briefly with the correct pronouns. Indirect methods only (such as referring to yourself in the third person) were less popular than using either direct or indirect methods depending on the situation. Likewise, doing it yourself or asking a friend was less popular than only ever asking others to do the correction for you (only 3.58% of responding participants chose this option). However, correcting immediately only or correcting later only were both more popular than correcting both immediately and later, possibly indicating that participants tend to have a single preferred time frame. That is, some participants prefer to correct immediately, some prefer to correct after the interaction is over, but fewer participants were comfortable alternating between the two.

The takeaway is that GQNB people have a wide variety of methods for correcting pronouns, which vary both based on context and based on the indi-

vidual person. Of those participants comfortable issuing pronoun correction, the favored strategies were to do it by oneself directly and immediately during the interaction, but no single strategy is especially heavily favored. Almost a quarter of GQNB people just avoid correcting at all. And not all of the participants who were comfortable correcting pronouns were comfortable doing so in all spaces.

Participants were also asked "Do you use the same pronouns online and in face-to-face spaces?": 52% said sometimes, 13% said no, and 35% said yes. This did differ among ideal pronoun selectors. In all pronoun categories, "no, never" was the least frequent.. Most of the time, the most frequent response was *sometimes*; however, for people who selected *he* and *she* the most frequent response was *yes, always*, as Figure 3.8 shows. This would seem to reinforce the idea that participants who go by innovative pronouns are more aware of the environment where they assert their pronouns.

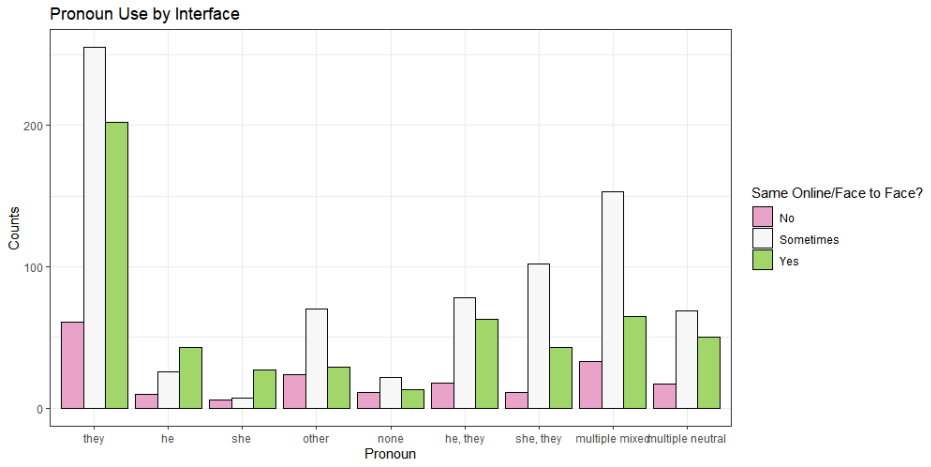

Figure 3.8: Ideal Pronoun by Use Same Pronouns Digital vs Face-to-Face

Those participants who did go by different pronouns sometimes or all of the time were asked how their online and face-to-face pronoun usages differed. 27% selected "I use my ideal pronouns online and my alternate pronouns face-to-face". 26% selected "I only use my pronouns online, and don't specify pronouns face-to-face". 16% selected I use multiple sets online and one set offline. Only 7% said "I use one set online and multiple sets face-to-face", and only 0.42% (4 individuals) said I use alternate pronouns online and my ideal pronouns face-to-face. 23%, however, selected Other and wrote in their own answer, so these options did not fully encapsulate all participants' uses. That said, between

the first two factors, 52% of participants who responded to this question made compromises face-to-face while not making them online, indicating that online spaces were more permissive for them. This may be behind the fact that many people go by multiple pronouns online and only one set offline as well.

Of the 223 participants who selected Other, 159 or 71% indicated in some way that they felt more free choosing what pronouns to go by online. Often this broadly involved using their ideal pronouns or multiple sets of pronouns online and in some in-person spaces, but allowing themselves to be misgendered or using auxiliary pronouns in other in-person spaces. The in-person spaces in which they specified pronouns or went by ideal pronouns were usually those they felt safe in or comfortable being openly GQNB in. Some specified they went by their ideal pronouns "with friends" or "in LGBTQIAP+ spaces". [45]

[45] This section came before the later section where participants were asked about their pronoun choices in those spaces

Digital and face to face methods of assertion were also not the same, as figure 3.9 shows. In digital spaces, the most popular strategies were using both direct and indirect methods. In face-to-face spaces, the most popular strategy was not to assert at all. About 46% of participants who answered the question said they never asserted their pronouns face-to-face at all; only 3.98% said the same for digital spaces. When participants did assert their pronouns face-to-face, direct methods such as correcting people when they assumed incorrectly or introducing oneself with pronouns were the most popular, with indirect methods like wearing a pin or badge only being less popular on their own than in combination with direct methods. In digital spaces, however, indirect methods such as putting pronouns in bio were more popular than direct methods alone, though using both direct and indirect methods was the most popular option.

The popularity of indirect methods in digital versus face-to-face spaces is likely related to the fact that digital spaces offer more locations for indirect pronoun assertion. For example, putting pronouns in a bio or description was an incredibly popular option, with 88% of participants who responded to this question selecting it as a method they went by in digital spaces. This accords with other studies which have found that many people use social media profiles, such as Twitter bios, to express their identity Semertzidis, Pitoura & Tsaparas (2013) Thomas et al. (2019) S. Thelwall & M. Thelwall (2020) Rogers & Jones (2021). But the bio or description obviously has no real-world analogue. The closest would probably be wearing a pin or badge to express pronouns, but that option was nowhere near as popular, with only about 24% of respondents

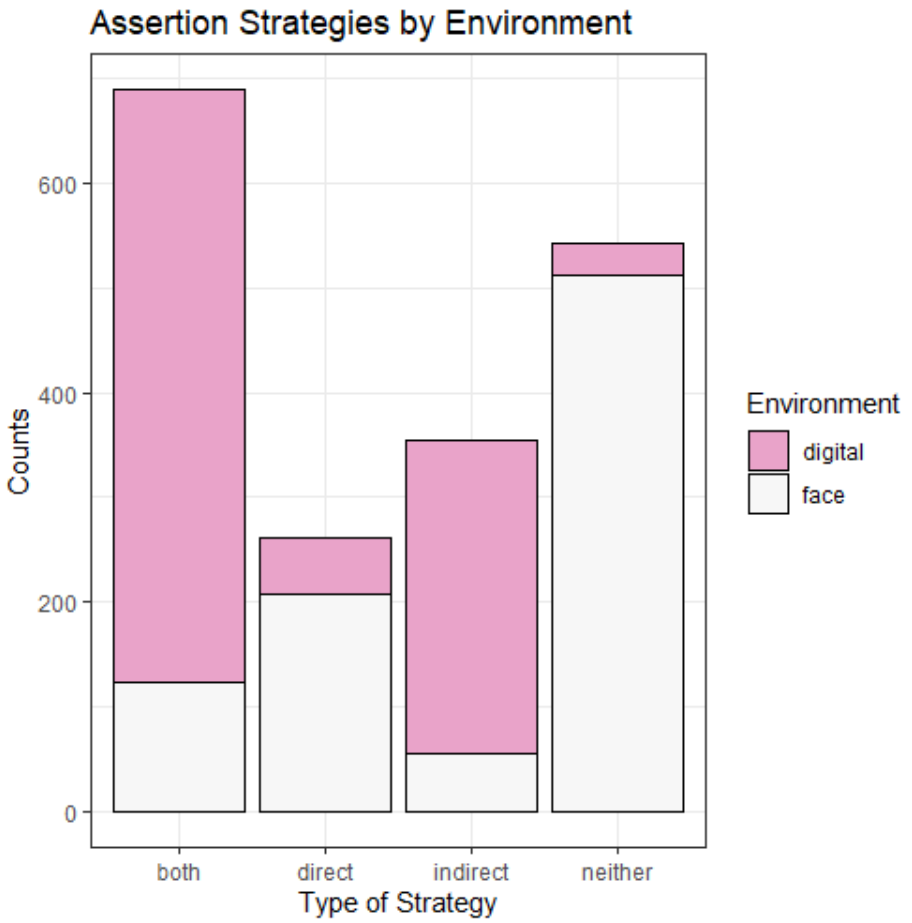

Figure 3.9: Assertion Strategies by Environment

choosing it. Wearing a pin or badge requires more steps (you have to buy or make one, which takes time and money) and is less likely to be immediately visible or noticeable. Thus, there are fewer opportunities in face-to-face spaces for indirect pronoun assertion than there are in digital spaces.

This may at least partly account for the unpopularity of asserting your pronouns in face-to-face spaces. Indirect assertions are lower-stakes, in that they do not require immediate confrontation. For someone who is nervous about discrimination (a sentiment participants expressed repeatedly throughout the survey), indirect methods may feel safer. However, this doesn't account for the fact that even in digital spaces, participants were more willing to use direct methods. In digital spaces, 67% of respondents used direct or both methods.

In face-to-face spaces, only 44% of participants did. Over 20% of participants, therefore, were comfortable using direct methods of assertion at least some of the time in digital spaces but not in face-to-face spaces.

In general, participants seemed to feel freer with pronoun talk of various kinds online than in face-to-face spaces. Some of the participants expressed a feeling that people were more accepting in online spaces than in face-to-face ones, so this may have to do with density of other GQNB in face-to-face vs online setting. It may also have to do with the fact that online interaction is often voluntary and non-professional (Ren, Kraut & Kiesler 2007) (Faraj, Kudaravalli & Wasko 2015) (Borst 2010). That changed very drastically and rapidly during 2020, just before participants took the survey; for example, before the pandemic, 20% of workers worked from home, while in December 2020, just before the survey was distributed, 71% did Parker, Horowitz & Minkin (2020). If the COVID-19 pandemic shifts the workplace towards digital spheres long term, participants may feel very differently in five years than they do now. And indeed, a significant minority of participants indicated that whether they went by their ideal pronouns or whether they corrected people had less to do with whether they were online or face-to-face and more to do with the kind of space they were in (professional vs personal or high-agency vs low-agency).

Additionally, however, greater anonymity and virtuality of online spaces may be partly behind the difference between pronoun behavior in online and face-to-face spaces. (Slater 2002) pointed out early on that online relationships are sometimes viewed as less "real" than face-to-face ones, which may decrease the stakes for participants. (Wellman, Boase & W. Chen 2002) also pointed out that the internet allows individuals to personalize their communities to a greater extent, meaning that the online communities participants were in were likely to have greater awareness of pronoun talk norms compared to their face-to-face communities. Many studies have also found that the internet has a disinhibiting effect on communication and behavior, which can be benign or aggressive (Joinson 2007) (Cheung, Wong & Chan 2016). This has been found to be the case even when a person was only partly anonymous, or not anonymous at all but was invisible and unable to make eye contact with their interlocuter (Hollenbaugh & Everett 2013) (Lapidot-Lefler & Barak 2012) (Lapidot-Lefler & Barak 2015). This disinhibiation may make participants feel more comfortable asserting and correcting their pronouns as well as making

The overall takeaway for this section is that GQNB participants were very aware of interlocutor and social context when they engaged in pronoun talk. Whether or not they chose to engage in pronoun talk at all, what pronouns they chose to give, and what strategies they used for pronoun talk all varied heavily based on participant and on situation. Both fears of prejudice and reluctance to explain the pronoun talk norm to interlocuters unfamiliar with it likely contribute to this disparity. Online spaces were generally percieved as safer for many participants, possibly due to the disinhibiting effects of the internet, but COVID-19-induced social changes have disrupted this landscape significantly. This sensitivity to environment will be backed up as we delve into pronoun talk in specific spaces.

3.2.6 Pronoun Talk in Spaces

Assertion and correction in specific spaces continued to broadly map to high and low agency environment in the way that other space-specific pronoun choices did. But with assertion and correction, there was more difference within agency conditions compared to other space-specific pronoun choices. Figure 3.10 and Figure 3.11 show the relationships between spaces and pronoun talk.

When asking whether participants asserted their pronouns in specific spaces, there was instead a gradual gradient of proportions. Although work/school and family had similar yes-rates (9.50% vs 10.63 %), work/school had a large proportion of sometimes (32%) vs family (22%). Once again, family seems to be the space in which participants feel least safe to engage in pronoun talk, followed by work and school. Meanwhile, for both friend and LGBTQIAP+ spaces, no-rates are low, though not identically so (11.42 vs 4.22). But with friends has a sometimes rate of 28.71 and a yes-rate of 34.06, while LGBTQIAP+ spaces are 16.16 vs 45.81. In other words, participants felt freer to assert their pronouns in LGBTQIAP+ spaces than they did even with friends. This may be because pronoun assertion is highly normalized in many LGBTQIAP+ spaces, as discussed in the introductory section on pronoun talk. Indeed, it may be an expected social interaction for some such spaces. If it is an expected interaction, participants are probably less likely to feel that asking for their pronouns is an imposition on others, compared to with friends.

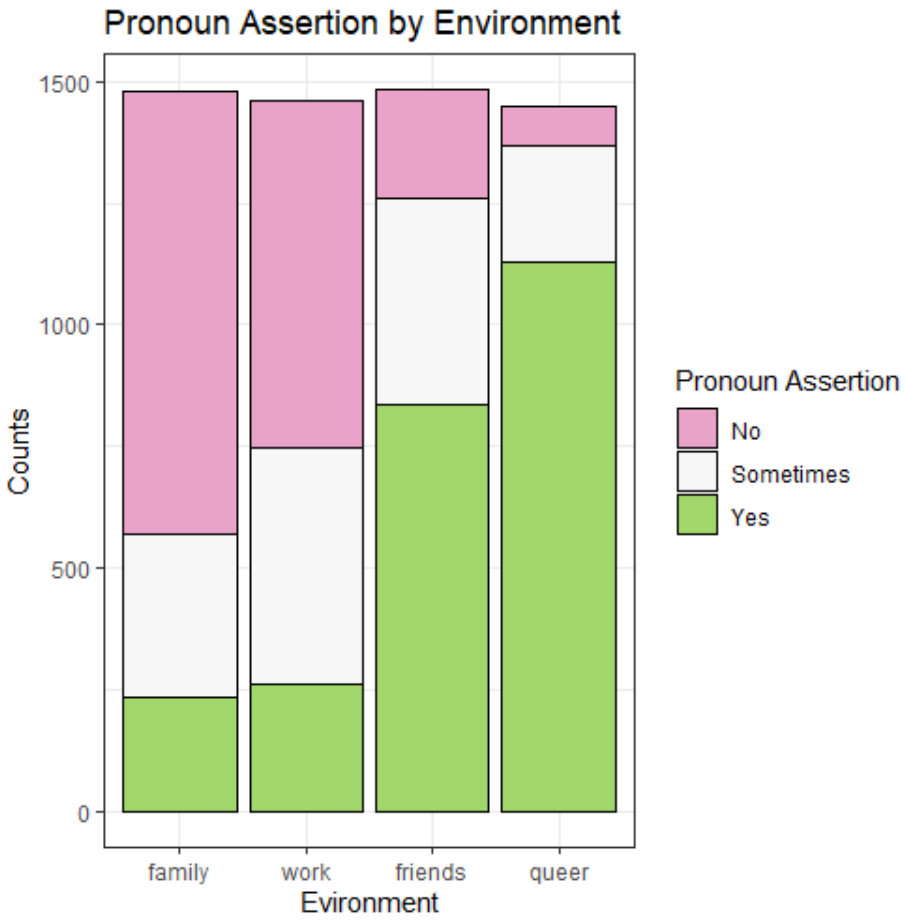

Figure 3.10: Assertion by Environment

It is also possible that participants' comfort with asserting their pronouns may be partly related to the number of other GQNB or, more broadly, transgender people inside of a particular space. Family spaces are closed and contain relatively non-diverse groups of people. Work/school spaces are not particularly likely to attract groups of transgender people, but may sometimes contain them. GQNB people often have transgender friends, but not always. But in an LGBTQIAP+ space, one would expect to encounter transgender people of various genders quite frequently, since they are one of the groups that the space is most dedicated to. This is purely speculative, as I did not ask participants anything about the gender composition of their spaces.

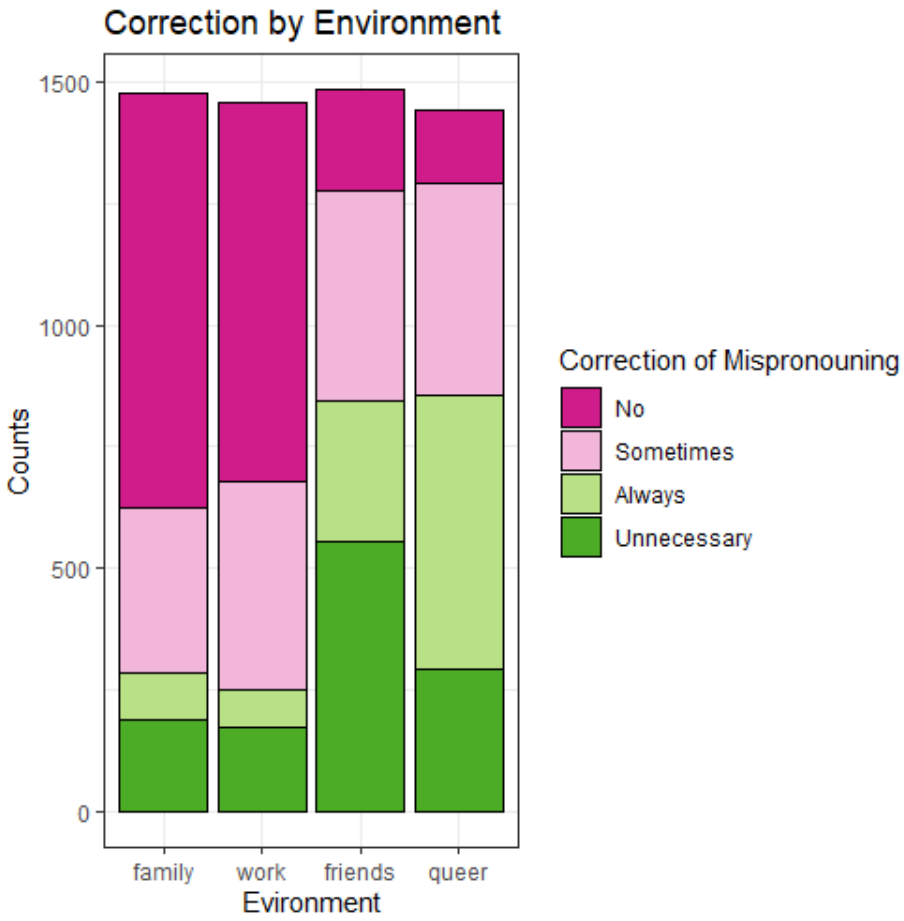

Figure 3.11: Assertion by Environment

With correction the situation is still more complex, not least because there is another category to be concerned with. In addition to "yes, always", "sometimes", and "no, never", participants could respond "people never use the wrong pronouns for me in this space" – in other words, correction was unnecessary. This could either be because a person's pronouns align normatively with their appearance, or it could be because everyone in their life respects their pronouns and never gets them wrong.

Again, family and work/school map together fairly closely, except that work/school has higher rates of sometimes (32% compared to 22% for family). But while friends and LGBTQIAP+ spaces have very similar rates of no and sometimes, friend-only spaces have much higher rates of unnecessary. 45% of people,

the plurality, said it was unnecessary to correct friends, while 28.31% said they always corrected friends. By contrast, 54.69% of people said they always correct people in LGBTQIAP+ spaces, while 24.30% said it was unnecessary.

So, while the majority of people felt comfortable correcting people about their pronouns in LGBTQIAP+ spaces, only about a quarter were never mispronounced in those spaces. By contrast, the plurality of people – almost half – were never mispronounced by their friends. This is probably a function of the fact that LGBTQIAP+ spaces are open; people go in and out of them, and new faces are likely to appear over time. So, not everyone you meet in those spaces will know or remember your pronouns. Friend groups, on the other hand, contain finite numbers of people and grow and change more slowly than LGBTQIAP+ spaces do. So participants' friends had a chance to learn and remember their pronouns.

3.2.7 Other Languages

Gendered languages other than English given by participants were: Swahili, Amharic, Arabic, Hebrew, ASL, Hindi, Sindhi, Bengali, Kannada, Urdu, Chinese (Mandarin, Cantonese, Unspecified), Japanese, Vietnamese, Greek, Bosnian, Bulgarian, Czech, Lithuanian, Polish, Russian, Serbian, Slovak, Ukrainian, Cornish, Irish, Welsh, Catalan, Galician, French, Italian, Portuguese, Romanian, Spanish, Latin, Afrikaans, Flemish, Dutch, German, Yiddish, Norwegian, Swedish, Icelandic, Danish, and Esperanto. Unsurprisingly, Spanish (124), French (122), and German (92) were the most cited languages. Some participants spoke more than one additional language.

Spanish

Of the Spanish speakers, 27 gave *ella*, 33 gave *él*, and 32 gave *elle*. One each gave *ele*, *elli*, and *le* [46]. Two people just said they preferred neopronouns without specifying. One person gave *ella/ellos*. Two people had no preference, and three people preferred pronoun avoidance. 15 people gave multiple pronouns, including both *elle* and *ella*, both *elle* and *él*, and both *él* and *ella*. Very few people expressed dissatisfaction with the pronoun options in Spanish, though a few noted that not many people were aware of *elle*[47].

[46] The speaker did not give information on how this was used or how it related to the existing dative clitic form *le* in Spanish.

[47] For more detail on the literature of Spanish neutral forms, see Chapter 2

For adjective endings, 25 people mentioned -e, with most of those who mentioned it either going by it or wanting to go by it but feeling uncomfortable bringing it up. 5 people mentioned -x, with one person expressing dissatisfaction with it. Three people mentioned just alternating endings -a and -o when referring to themselves. Overall, -e was much more frequently mentioned than -x, and almost everyone who mentioned -x also mentioned -e. One participant recalled using avoidance where possible: "I often subtly structured sentences to avoid using singular adjectives and nouns in reference to myself. eg 'hago trabajo voluntario aqui' [I volunteer here] instead of 'soy voluntari@' [I am a volunteer] or 'quiero irme a casa para dormir' [I want to go home and sleep] instead of 'estoy cansad@' [I am tired]." This same participant observed that gendered endings were a more salient issue than pronouns in Spanish: "nouns and adjectives are in my experience a bigger part of grammatical gender in Spanish than pronouns (many of which are optional/made redundant by verb declensions or already gender neutral)". This confirms the assertion made in Chapter 2 that pronouns are less of a concern for Spanish speakers than gendered agreement morphology in other parts of the language.

French

Of the French speakers, 46 said *elle* and 39 said *il*. This means that gendered options were more popular in French than in Spanish, even though there were only two more Spanish speakers than French speakers. 27 participants gave "iel", slightly less than the 32 participants who mentioned *elle* in Spanish. There were also more diverse neutral options in French. While *iel* was far and away the most popular, participants also mentioned *eil* (1), *ei* (1), *ul* (3), *ol* (1), and, interestingly, *on* (an indefinite third-person like English *one*, among other uses) (2). Five people expressed a desire to find a French neutral pronoun that they liked, three people said they went by any neutral neopronouns, two people went by any pronouns, and two people preferred pronoun avoidance. French neutral pronouns, it seems, are a slightly more vexed question than Spanish ones among this population.

For adjective endings, no single neutralizing solution was popular. Six people said they would prefer to mix masculine and feminine endings. Two people mentioned the écriture inclusive writing technique which involves using both endings separated by an orthographic mark such as a period (Abbou 2011) (De-

borde 2017). An example would be *captif.ve* to render the masculine *captif* and feminine *captive* 'captive' at the same time. One person mentioned using masculine verb conjugation with feminine pronouns. Five people said that French was especially hard to neutralize because of the way that gender functions in the language.

German

In German, 31 people gave *sie*, 21 people gave *er*, 6 people gave *es* (the neuter), and 2 people gave *xier* (a neopronoun). Three people liked all pronouns, and six said they preferred people to switch between the binary options. One person each gave *hen* (borrowed from Swedish), *nin* (a neopronoun), and *sier* (also a neopronoun, a mix of sie/er). Two people just said they went by a neopronoun without specifying which. 8 people mentioned that they were looking for a neutral German pronoun, which was more people than gave any particular neutral option. In other words, coherence in German neutral pronouns among my participants was extremely low, as was satisfaction.

This situation held with the gendered endings. One person said they believed in leaving off gendered endings, and five people mentioned orthographic strategies involving an asterisk or underscore. One person mentioned using an x in place of gendered endings, as in "dier Lehrerx (pronounced die er Lehrer iks)" [48]. Two people mentioned trying to reword the sentence in order to avoid gendered words. Several people mentioned dissatisfaction with the options. One person said, "it's just kind of a nightmare because it feels like every part of this language was designed specifically to make me pick a binary gender (obviously it wasn't, I'm just being facetious), and it's really holding me back from seriously exploring my gender." Another said they dealt with gendered endings by "Crying. I am unable to navigate it very well. German is EXTREMELY gendered."

[48] Note also that the article is a blend of die and der

Other Languages

For the section that follows below, I list the pronoun strategies participants used along with the language and, in parentheses, the number of speakers who used that strategy plus the number of speakers total who spoke that language. So, for example, sixteen participants spoke Swedish and eleven of those reported

using *hen*. This is reported under neoforms, listed as Swedish (11/16). Some participants reported multiple forms and some didn't indicate any forms at all or said they were unsure, so the totals across categories will not necessarily sum to 100. However, this will give a general overview of what strategies for navigating gender are most common among speakers of other languages.

At least some participants in most languages used binary-gendered pronouns and language without modification. This was found in Dutch (15/27), Swedish (4/16), Norwegian, (5/8), Danish (3/13), Icelandic (2/6), Portuguese (13/14), Italian (10/17), Galician (1/1), Catalan (1/1), Romanian(1/1)[49], Latin (2/4), Polish(8/18), Russian, Bulgarian, Czech (2/2), Ukrainian (1/1) Serbian (1/1) Slovak (1/1), Welsh (3/3), Irish (2/5), Cornish (1/1), Hebrew (9/15), Arabic (6/6), Hindi and Bengali (2/2), Sindhi and Urdu (1/1), Greek (1/2), and Swahili (1/1).

[49] Masculine, "because they're as close as I can get to neutral pronouns and because I don't really mind being perceived as male anyway", possibly indicating some level of masculine-as-default.

Participants reported explicitly coined neoforms in Dutch(4/27), Swedish (11/16), Icelandic (1/6) Norwegian (3/8), Icelandic, Portuguese (3/14), and Hebrew (2/15). *Hen* was the only reported Swedish and the only reported Norwegian neopronoun. The only Portuguese neopronoun reported was *elu*. Three people mentioned using -e endings for neutrality in Portuguese. The two Hebrew speakers mentioned the Nonbinary Hebrew Project's proposed forms, which include singular and plural pronouns as well as nominal and verbal morphology. The Icelandic speaker did not report specifics of the neopronoun. Dutch speakers went by *die/hen*, a neoform based on the Dutch plural and demonstrative pronouns [50].

[50] This set is explained further at this link

Innovative use of existing language was also reported in many different languages. This took the form of deliberately mixing masculine and feminine, using a neutral plural (as English *they* does), using a typically-inanimate neuter, or just avoiding gendered elements where possible. The frequencies of these strategies are listed, followed by some additional strategies in other languages that cannot be classified under these general categories.

- Mixing masculine and feminine: Dutch (3/27), Icelandic (2/6), Italian (2/17), Polish(4/18) Russian (3/19), Bosnian and Serbo-Croatian (1/1) Hebrew (4/15), Yiddish (1/1)

- Neutral plural: Dutch (4/27) Swedish (1/16), Danish (6/13), Norwegian (3/8), Russian (7/19), Polish(3/18), Irish (3/5), Greek (1/2), Afrikaans (1/1), Sindhi and Urdu (1/1)
- Neuter inanimate: Swedish (2/16), Icelandic (3/6), Polish(2/18), Russian (1/19), Latin (2/4)
- Avoidance: Polish (4/18), Russian (1/19), Bulgarian (1/1)

The Kannada speaker went by *avaru*, a formal/neutral distal pronoun, and two Dutch participants used the demonstrative *die/diens*.

In Welsh, one particular kind of gender mixing was reported in greater detail: "as long as it won't change the actual meaning of the word being used, I use the "opposite" consonant mutation for sentences using a gendered pronoun, e.g. 'her cat' = 'ei chath hi,' and 'his cat' = 'ei gath o,' so a nonbinary construction can be made with 'ei gath hi' and 'ei chath o.'"

Speakers of Mandarin Chinese only had to navigate written pronouns, as discussed in Cheng (2016). Of seven Mandarin speakers, four went by the now-masculine but historically neutral written version, one also went by the feminine version alongside it. One didn't specify, one just went by AGAB pronouns due to the fact that all versions are phonetically identical, and one felt there was no good written options. No participants who spoke a Chinese language mentioned navigating gender in any other part of the language.

11 Japanese speakers responded. Unlike many of the languages I have been discussing, Japanese doesn't gender pronouns per se, but does have gendered implications related to politeness levels in both first and third pronouns, which vary by context. A pronoun might be used by a woman in informal circumstances and by a man in formal circumstances Ono & Thompson (2003). Women most frequently use *atashi* and *watashi*, while men most frequently use *ore* and *boku*. However, women sometimes use *boku* in less formal situations and men sometimes use *watashi* in more formal situations McCraw (2011: p. 123).

Four people mentioned just using pronoun avoidance strategies, which are very common in Japanese for other reasons. In the first person, three people used *boku*, three used *watashi* and two used *jibun*, which means *self* and is not limited to first person McCraw (2011: p. 123). Third-person pronouns were less discussed, possibly because they are not as frequently used in Japanese; two went by the masculine version and two went by the feminine version, but many

did not mention a preference. Most participants did not mention gender in other areas of the language.

Two Vietnamese speakers gave very different answers. The first one said "chanh or cam (words for lemon/orange)". This appears to be a strategy just recently coined in Vietnamese; see Nguyen (2019). The second one said that they went by feminine pronouns in Vietnamese, but that their ideal situation would be to go by their name as the pronoun in the first, second, and third person, which is grammatical in Vietnamese but not always socially feasible in their situation.

Finally, Icelandic speakers also happened to provide particularly interesting analyses of gender in their language, and their comments are worth reporting. One participant preferred Icelandic for gender purposes: "This gives me the agency to define my own gender and communicate it to others without having to rely on perhaps hostile strangers using the pronouns I want them to." Another felt that Icelandic made gender exploration difficult: "Icelandic is kind of what is keeping me from actually identifying as some kind of nonbinary. Most of my thoughts are in Icelandic and I am unable to think of myself in grammatically neutral terms because to me it feels very alien". This opens a broader question for future study: in languages with grammatical gender, what shared experiences do GQNB people have in their self-definition that speakers of languages without much or any grammatical gender might not share?

Summary

Participants speaking other languages with gender went by avoidance strategies, mixing of genders, plurals, and neuters. There was more resistance to neuters; some people found them dehumanizing or strange. They were less frequently used than other options, perhaps partly because of this effect and partly because not every language has a neuter option available. Plurals were especially present in in Germanic languages and Russian, while mixing strategies were especially robust in languages with heavy and consistent gender-marking. Avoidance strategies occurred in many languages but were not always fully effective for all languages, especially those with gender in many parts of the language.

Out of the three largest languages present in the sample, German- and French-speaking participants, compared to Spanish speakers, expressed more dissatisfaction with neutralization options, especially in inflectional morphol-

ogy compared to pronouns. German-speaking participants struggled in this area especially. Areas of particular participant concord included Spanish *-e* (studied previously by López (2019), Papadopoulos (2019), Zarwanitzer & Gelormini-Lezama (2020), and Matos (2018)), Swedish *hen* (much documented, but see Ledin & Lyngfelt (2013), Hord (2016), Lindqvist, Renström & Gustafsson Sendén (2019), Vergoossen et al. (2020), and Gustafsson Sendén, Bäck & Lindqvist (2015)), Danish *de* (documented by Miltersen (2018)), Dutch *die/hen* forms, and French *iel* (see Shroy (2016), Caño (2019), Unique En Son Genre (2017), and Knisely (2020)). The last three items in particular merit more study by fluent speakers of those languages, as do Nonbinary Hebrew Project's proposals. Mandarin Chinese speakers' strategies for negotiating the neutrality of spoken ta versus the gendering of written ta are also of interest, especially as ta was historically neutral (Cheng 2016). Further study of languages such as Japanese and Vietnamese, were languages where pronouns have gender or gendered implications but where pronoun avoidance is grammatically common, would also be useful.

3.3 Conclusion

The similarity between my results for the ideal pronoun question – 72% *they*, 29% *he*, 22% *she*, and 8% *it* – and Lodge's 2020 results – 77.6% *they*, 30.5% *he*, 29% *she*, and 5% *it*[51] – seems to indicate that the populations investigated are similar. The populations investigated by both Lodge's and survey and this one have certain demographic characteristics – young, majority English-L1, prone to spending a lot of time on social media (especially Tumblr), and comfortable taking surveys about their gender in English. GQNB people outside of that demographic may behave differently. That limitation in mind, nevertheless some consistencies emerged.

[51] Lodge does not report an all-neopronouns category.

Firstly, singular *they* was by far the most popular pronoun, and far outweighed any single other neutral option (all other neutral pronouns being under 10% individually compared to 72% *they*). This aligns with Lodge's results. Not every GQNB person is comfortable with it, but between the ideal (1139) and the auxiliary (294) conditions, 83% of participants went by it in at least some situations. This is an interesting contrast with Swedish, another language where a gender-neutral pronoun has won some level of approval. In Swedish, a

neopronoun has been most successful (Gustafsson Sendén, Bäck & Lindqvist 2015) (Vergoossen et al. 2020); in English, it is singular *they*, as established not only by these results but also by Lodge (2020b) and Hekanaho (2020). It seems, therefore, that it is not as simple as saying that established forms or neoforms are more generally successful.

With an mean age of 22 and an mean identification time of 5.2 years, the average speaker was 17 when they first realized their GQNB identity. Many participants, therefore, likely began to acquire gender-neutral pronouns in mid to late adolescence or early adulthood. This will especially be the case for participants over the age of about 30; since definite singular *they* only began to rise in popularity in the 2010s, these participants will likely have been out of adolescence before being exposed to this usage. While innovative pronouns were more common for younger participants, they were not limited to younger participants. And since ease of use for oneself was a major factor in participants' pronoun selection, we can infer that it is not impossible for participants past adolescence to acquire new pronouns.

Survey participants also had a very complex and nuanced approach to when, where, and how they shared their pronouns. Concerns of safety, stigma, and energy spent explaining were constant themes throughout the survey. When choosing ideal pronouns, participants balanced practicality with identity concerns; when their pronouns were innovative, they often chose alternate pronouns selected primarily for others' ease of use. They selected pronouns differently in spaces where they felt they would be safe and affirmed (particularly places where they had a great deal of agency over the company) versus spaces where they felt they would not be (particularly places where they did not have much agency over the company). In other words, a large part of participants' negotiation of pronouns involved being aware of their interlocutor and the context, not just the pronouns themselves. In a sense, sharing of ideal pronouns was governed by complex pragmatic and relational concerns. This is in line with research on pronoun negotiation in other areas, such as the T/V pronoun distinction, where the negotiation of formal versus informal *you* is extremely contextual and the determination of which form is used involves many complex social factors (Raymond 2016) (Nanbakhsh 2012) (Liebscher et al. 2010) (Levshina 2017).

Online versus face-to-face pronoun negotiation also differed. Assertion seemed to be easier for many participants online, possibly because there are far more opportunities to passively assert pronouns online. However, the fact that many participants were comfortable using direct pronoun assertion in digital spaces but not in online spaces merits further study. Many participants went by pronouns differently online versus face-to-face, with a general trend towards more freedom of pronoun choice online. But others said it was the company, not the mediation type, that dictated their pronoun choice. This is likely due to the fact that, increasingly and accelerated by COVID-19, online spaces are extensions of public environments such as school and work, as opposed to being exclusively private spaces.

Participants often had multiple pronouns, especially ideal pronouns. Many of them had experimented with, and abandoned, at least one pronoun set in the past. Some participants engaged with pronouns in a highly creative way, especially those with many pronouns or unique pronouns. I call subset *the community of pronoun play*. Pronoun play is used in Conrod (2020) to refer, for example, to alternation between *he* and *she* in drag and gay communities; I am extending the usage to mean a more general creativity with pronouns. These participants expressed many complex factors, not just gender, through their use of pronouns. Extensive use of neopronouns might be considered a hallmark of the community of pronoun play.

However, this type of experimentation doesn't seem to continue throughout the lifespan for all speakers; rather, there is a period of experimentation followed by stability, much as in classical age-grading (Tagliamonte & D'Arcy 2009). This is unexpected for pronouns, which are typically considered a closed class Crystal (2011b). Older participants, however, were less likely to have gone through this period of experimentation, and were less likely in general to go by innovative forms. This may be because their sense of identity was solidified before pronoun options were widely-discussed, or it may be because they are established in their lives and careers and, unlike younger people, do not necessarily have the social freedom to experiment. This is again in line with classical age-grading effects as analyzed using Bourdieu (1977)'s concept of the linguistic marketplace (Buchstaller 2006: p. 14) (Rickford & Price 2013). It may also be that it is more difficult for older speakers to acquire these pronouns although, again, not impossible.

Innovative forms were often not respected, especially in spaces where participants had little agency over their surroundings. Less agency meant fewer people who were already familiar with the pronouns and sympathetic to their use. But the strategy that seemed most difficult for participants to receive respect on was pronoun avoidance, at least in English. This is another subject that may merit further study – is it more difficult in English to avoid pronouns entirely than to use an innovative form? It would be fruitful to compare English, and other personal pronoun-heavy languages, to other languages like Vietnamese and Japanese where personal pronouns are a less important from a structural perspective.

Finally, participants gave many different neopronouns, which varied in popularity and structure. I have discussed the frequencies of certain neopronouns, and the usage of neopronouns as a category, but I have not delved into details about the structure of the pronouns themselves. In the chapter that follows, I will investigate these structures more closely to better understand how they relate to established forms.

Chapter 4

An Analysis of English Neopronouns

In Chapter 2 and Chapter 3, neopronouns were mostly treated as a single category of pronoun behavior. However, it cannot be ignored that neopronouns have a great diversity of form. In the usage survey presented in 3, participants gave almost 100 distinct forms, even eliminating minor spelling variations. [52]

These forms are a treasure trove of data about English pronouns. Since Berko (1958)'s wug test [53], novel forms, constructed language, and peripheral structures[54] have been used as a way to test the underlying rules of languages without interference from common, existing forms. Novel forms have been investigated by Joan L Bybee & Moder (1983), Albright & Hayes (2003), DiGirolamo (2012), Becker, Eby Clemens & Nevins (2017), Kawahara, Noto & Kumagai (2018), and Ahyad & Becker (2020). Oostendorp (1999) and Destruel (2016) have examined constructed languages. And peripheral structures have been investigated by Benor & Levy (2006), E. Cohen & Bat-El (2012), Moreton et al. (2017), and Schoenfeld, E. G. Cohen & Bat-El (2019).

In a sense, neopronouns are both novel and peripheral. Many of them have existed in English for decades, but were coined by individual writers and have seen extremely low to nonexistent use before the last twenty-five years, as discussed in Chapter 2. In the last twenty-five years, they have tended to be used only within a specific community, and within this community novel forms are also coined. Thus, an analysis of the structure of neopronouns contributes to literature on how novel forms are coined using existing rules, and how peripheral forms may be leveled in accordance with existing rules.

[52] See 4.4.6 for more detail.

[53] In fact, I presented the data from the 2016 survey (Callaway 2016) at a conference, and in response Dr. Kirby Conrad (cited elsewhere in this dissertation) remarked that the process of coining neopronouns was "a self-administered wug test" on the elements of English pronoun morphology.

[54] Structures that are used by specific groups of speakers and are not part of the standard language (Topintzi & Markopoulos 2021).

To begin the chapter, Section 4.1 will give a more detailed history of individual neopronouns. Section 4.2 will discuss the role of the neopronoun in GQNB communities to distinguish it from the uses of the more popular singular *they* and explain why, despite its popularity, *they* has not yet totally out-competed neopronouns. The remainder of the chapter will analyze neopronoun forms and discuss them as peripheral language that allows for examination of the structure of English pronominal morphophonology, as many novel, artificial, and peripheral forms do (Topintzi & Markopoulos 2021). This will include typologization of the pronouns and an analysis of their potential forms. This analysis will be used to design the experimental task presented in Chapter 5.

In this chapter, I am using some morphological terminology in nonstandard ways simply for ease of understanding. I refer to *paradigms* in these pronouns when I discuss relationships between neopronouns and paleopronoun structures, even though they are not all historically part of a paradigm in the formal sense, to indicate that they are a series of linked items that change their form. It would perhaps be more accurate to refer to different pronoun forms simply as *forms* or even as *parts of speech*, but for brevity and clarity I will call them *cases*. Finally, while English pronouns do not actually have distinct bases historically speaking, I will use the word to *base* to refer to the part of the neopronoun that remains consistent across different forms.

4.1 A History of English Neopronouns

In the chronology that follows, I draw largely from Baron (2020b). Baron's work on the subject of neopronouns dates back to Baron (1981), since before the conversation on GQNB pronouns had begun, and his[55] 2020 book *What's Your Pronoun* is one of the very few existing timelines on neopronouns, and certainly the most thorough. I have supplemented it with some real-use sources and with J. M. Allen & Faigley (1995) towards the middle and end of the 20th century. Pronoun sets will be presented as subject/object/possessive determiner/possessive pronoun/reflexive where all forms are known. Where there are unknown forms, as there often are due to lack of standardized cionages, they will be represented with a dash.

[55] Baron's pronouns, he/him, are helpfully listed on the cover of the book.

Baron's timeline of neopronouns proper begins in 1841 with *e/em/es/es/-*. It was coined by grammarian Francis Augustus Brewster and called the "mascu-

lor feminine" (187). Around the 1850s *ne/nim/nis/nis-* and the mixed pronoun *hiser* (case unclear) were also coined (188), although precise dates are impossible because Baron says that they are simply mentioned as having been coined "thirty years or more" ago in the August 7, 1884 New York Commercial Advertiser. Notably, both *e/em/es/es/-* and *ne/nim/nis/nis-* are grammatically similar to *he/him/his*. [56] There is then something of a flurry of coinages in the 1860s, with *ve/vim/vis/vis/-*, *ze* (no other forms given), *han/han/hans/hans/hanself*, and *un/un/uns/uns/unself*, *in/in/ins/ins/inself*, and *um/um/ums/ums/uself* emerging in this decade (189-190)[57].

[56] And both are pronouns that survey participants gave me, so they live on in some small way 170 years later.

[57] *ve/vim/vis* and *han/hans* are other pronouns that are still attested in survey participants.

At this point, pronouns begin to repeat, with the 1870s seeing another *hiser* (spelled *hizer* this time, again no information on other forms). This is a theme within neopronoun research: people repeatedly coin the same forms without being aware that they are doing so. This is unsurprising in the case of*hizer/hiser*, which is simply a blend of existing elements, but it is more curious when people repeatedly coin *um*, as they do in 1869, 1877, 1878, and 1884. 1871 also sees *le* (no information on other forms given), yet another option that lives on in my participants, as does 1874's *se/sim/sis/sis/-*. 1881's *se/sin/sis/sis/-* is very similar except the substitution of the *m* for an *n*. Again, note the preponderance of forms based morphologically on *he*.

One of the best-known neopronouns is 1884's *thon/thon/thons/thons/thonself* (195). Charles C. Converse is credited with coining this form, which is a contraction of *that one*. The public discussion of *thon* sparked another wave of neopronoun inventions, with Baron listing 10 neopronouns coined this year (196-197). Most are unconscious repetitions, although *twen/twem/twens/-/-*, *ip/ip/ips/ips /ipself*, and *hae/haim/haes/-* are new. 1885 sees *zhye/zyhem/zhye's/-/-*, an early precursor of the popularity of z's and y's for neopronouns (199). 1887's *id/id/ids/ids/idself* and *en/en/ens/ens/enself* both seem to be influenced by *it*, while 1888's *te/tim/tes/ tes/-*and *ze/zim/zis/-* continue to decline like *he* (200). *Ir/im/iro/-/-*, also coined in 1888, retains the object-marking -m that exists in both the *they* and *he* sets, although the change from *ir* to *iro* is nonparadigmatic. *Dey/dem/der/ders/-* is also from the same year and claims to borrow from Black English, though Baron states that the depiction is very racist and inaccurate (201).

Coinages continue thick throughout the 1890s, but few are unique. There's 1890's *ith/ith/iths/iths/ithself*, *ta/tan/tas/-/-*, and *zie/hor/hor/hors/horself*, with this last being the first she/her paradigm that I can find in Baron's timeline

(203), as well as 1892's *tu/tus/tum/tus/-* and 1895's *sit/sim/sis/sis/-* (205). The rest are repetitions. Not until 1920 does another new form emerge, with *vey* (paradigm not clear) (2013). '21 sees *su* (paradigm not clear), allegedly derived from Spanish (214). 1929 has *ot* (paradigm not clear) (219), while 1930 has *se/sem/ser/sers/ser or semself*, which declines similarly to *they* (219). 1930 has *che/chms/chis/-/-* and *fe/fer/fem/-*, while 1932 sees *ha/ham/has/has/hamself* and *tra/trem/tres/tres/-* (220). The new forms die down after this and throughout the 40s-60s there are far fewer forms coined. Baron only lists 5 forms for the entire period of 1940-1968, most repeats. 1945 does have *hse*, modelled on Chinese, which is unique (221), and also has an unclear paradigm. Forms begin to pick up speed again in 1969, which has *jhe* and *kin* (paradigms not given). (148).

With the advent of second-wave feminist language reform in the '70s, truly new pronouns increase. 1970 has *co/co/cos/cos/coself* (223). J. M. Allen & Faigley (1995) credits this to Mary Orvan in a pamphlet called *Humanizing English*, and notes that it was adopted across many alternative communities in the 1980s. 1971 has *xe/xem/xes/xes/-*, *tey/tem/ter/ters/-* [58] (223) and *ta/ta-men* (224), which is a borrowing from Mandarin[59]. The paradigm for this last form is unclear. '72 has *ze/zim/zees/-/-* and *per/per/pers/pers/perself* (224). Although this second one is credited to John Clark in the Newsletter of the American Anthropological Association, it is far more popularly[60] associated with Marge Piercy's 1976 novel *Woman On The Edge of Time*. J. M. Allen & Faigley (1995) credit the pronoun to her, not to Clark. This work of utopian feminist fiction imagines a feature in which gender is irrelevant and every person is referred to as *per*:

> What Grey Fox normally does is fish-farming out on the shelf. That's per work, per center. (Piercy 1976: p. 274)

(J. M. Allen & Faigley 1995) states that June Arnold's 1973 *The Cook and the Carpenter*, another feminist novel although in this case based on the The Fifth Street Women's Building action, also uses neopronouns. Arnold uses *na/nan//nas/nas/naself* :

> Nan eyes were deep-set behind glasses, which recessed and veiled their pain into unnoticability; na knew that and would look straight at the questioner's face. (J. D. Arnold 1973: p. 23).

Other unique pronouns Baron lists in the 1970s include 1974's *en/es/ar*(226) (declension unclear); 1975's *ey/em/eir/eirs/-* (228); 1976's *il/il/ils/ils/ilself* [61]; 1977's

[58] J. M. Allen & Faigley (1995: p. 148) traces this form to 1975 in an article published in *The American Psychologist*.

[59] Ta-men is the plural in Mandarin.

[60] Insofar as anything about neopronouns can ever be described this way.

[61] Coined by a linguist. Baron says that Ralph B. Long, the coiner in question, does not mention the French pronoun, and simply chose the l for its distinctiveness.

extremely unparadigmatic *po/xe/jhe* (declension unclear) (229), *e/rim/ris/-/-* (230), and *ke/kem/kos/-/-* (231); 1978's *ae*, declension not given [62] (231); and 1979's *et/et/ets/ets/etself* (232).

[62] Functionally often a respelling of *ey*, although sometimes declined by my participants *ae/aer/aers*.

Another relative lull follows in the 1980s. A few new terms do emerge, such as *gee/hes/hem/-/-* in 1985, *re/hov/hos/-/-* in 1987 (235), and *ala/alum/alis/-/-* in 1989 (236). In the 1990s and 2000s, another resurgence follows. I depart here from Baron because most of the forms he lists are repeats, and from Allen because their chronology ends in the 1990s; instead, I will discuss some sources from this period that actually use the pronouns in question.

The popularity of *ze/hir/hir/hirs/hirself* and related sets in the genderqueer community of the 1990s and early 2000s has already been discussed. Additionally, the Twin Oaks Intentional Community, an utopianist intentional community in Virginia founded in 1967, drafted their bylaws using *co/co/cos/cos/coself* pronouns (Tupelo 1996). The earliest online version of these online is from 1996, but the neopronouns may date back earlier.

Spivak (1986), *The Joy of TeX*, uses what are popularly called the "Spivak set" – *e/em/eir/eirs/emself* – for indefinite situations. Spivak gives the example "E only loves em for eir body" (xv). A different version using *ey* instead (sometimes called the Elverson set after its proposer) is used in the Laws of Oceania, a proposal for the laws of a new country: "A prisoner who has served eir time and is released may be imprisoned for up to another 100 years if ey commits more Crimes." (Klien 1993) It's also used in Steven Shaviro's 1995 *Doom Patrols: A Theoretical Fiction about Postmodernism*, crediting the set to Spivak (Shaviro 1995). This is still a very popular neopronoun as they go. Of the 309 of my survey participants who went by neopronouns, 81 selected *e* or *ey/em/eir/eirs/emsel or eirself* as one or more of their ideal pronouns (26%). Lodge (2020b) also found it the second most popular neopronoun in their survey, even though it was given by only 0.6% (142) participants.

A variety of smaller sources use less popular neopronouns. The 1990 science fiction short story *Memetic Drift* by Glenn Grant uses *se/sem/ses/ses/-* according to Williams (2004), although I have not been able to find a copy of the story to confirm this. Egan (1998), a science fiction novel, uses *ve/ver/vis/-/-*. A conference paper from Autism Europe on autistic-focused perspectives of theory of mind uses *xe/xem/xyr/xyrs/xemself* (Blackburn et al. 2000). The academic work Hyde (2001) uses *sie/hir/hir/hirs/hirself* for theoretical people. A 2008

Scarlateen article about sexual health uses *ze/hir:* "it's great that your partner has shared what ze (pronounced "zee"–I don't want to assume the gender of your partner, so I'm using a gender-neutral pronoun here) likes with you."

What most of these sources have in common is a certain reformist impulse. Science fiction may imagine a future without gender, or where gender is expanded. Intentional communities seek to create equality. Feminism may imagine or push for a future in which gender does not matter. Other sources, like Spivak's, seek an efficient solution to a perceived problem (the ambiguity of indefinite *they*). Thus, these neopronouns see limited use, and what use they have is generally within a particular sphere dedicated to picking language apart and putting it back together differently.

For most of this history, most of the primary sources surrounding neopronouns used and promoted them in relatively prescriptive ways. The search for a gender-neutral pronoun was the search for the best form, the one that could most easily and smoothly be integrated into English, especially by speakers who were unfamiliar with it and uninvested in the idea of gender-neutral pronouns. The sorting, sifting, and judging that went on with respect to these pronouns is best exemplified by Williams (2004). The author's GNP FAQ sorts neopronouns on a series of criteria, such as how easily pronounced the pronoun is, how nice it sounds, whether it's a sewing together of existing parts or not, and whether the paradigm is balanced and truly neutral. The dominance of ze/hir is notable; ze/hir declines very similarly to she/her, and it's not hard to imagine a pronunciation for it. Ten years later, the Gender Neutral Pronoun blog (anonymous 2010), though less comprehensive, likewise graded on a standardized scale of ease of pronunciation, gender-neutrality, and distinctness from other pronouns.

From this evidence, it is tempting to assume that all genderqueer uses of neopronouns have been similarly reformist endeavors. If that were so, one would expect that *they* would drive out neopronouns entirely. And yet, a small but relatively consistent section of the GQNB population continues to use neopronouns, as both the survey in Chapter 3 and Lodge (2013)–Lodge (2020b) show. There is another factor that allows neopronouns to compete: their usefulness in personal expression.

4.2 Pronouns as Personal Expression

Miltersen (2016) is the first scholar to document a phenomenon that is deeply important for understanding genderqueer pronouns: the concept of the pronoun as a personal expression of identity. Miltersen specifically studies nounself pronouns: pronouns formed from other nouns within English, usually nouns that have some sort of aesthetic or expressive value. Grammatically, this process is extremely unusual for English. Although function words in general and pronouns specifically can and do develop from content words, this process is usually slow, taking many decades Zilles (2005) Liu et al. (2010) Ishiyama (2019). Nounself pronouns, on the other hand, are very diverse and individual, suggesting they can be formed quickly. In Chapter 3's usage survey, most nounself pronouns that appeared in the survey were used by only one person. They also seem to be formed on a specific template, as the section below will show.

Examples of nounself pronouns include*void/void/voids/voids/voidself*, *gem/gem/gems/gems/gemself*, *dei/dei/deis/deis/deiself* (from deity), *purr/purr/purrs/purrs/purrself*, *tiger/tiger/ tigers/tigers/tigerself*, *cor/cor/corps/corps/corpself*, and *mer/mer/mers/ mers/merself*. It should be noted that while they are called *nounself* following community conventions, they are not all derived from nouns, and some are shortened rather than being a word's full form. As Miltersen documents, the source word can be reduced or unreduced, and occasionally may undergo ablaut (42). Respondents using these pronouns in Miltersen's work were young, with a median age of 18, and they often identified as otherkin [63] (43). Otherkin might feel that part of their personality or soul is an animal or mythical creature, and GQNB otherkin might choose their pronouns to express that. But many selectors' connections to their pronouns are less concrete: one of Miltersen's participants stated "[My] pronouns come with certain feelings and energies attached to them, for me, I like the way they feel in reference to how my vibes feel, and how they communicate the vibes I want to give off to other people" (46).

[63] An identity claimed by people who feel that they are not entirely human. See for example Laycock (2012), Shane (2014), O'Callaghan (2015), and Proctor (2018)

In other words, the affective value of the pronouns extends not only to gender, but also to some other part of their identity, even one as vague as "vibes". This is a reoccurring theme when it comes to neopronoun, as we have seen in Section 3.2.2. It also aligns strongly with the kind of language play documented in Feraday (2014)'s study of neo-identities on Tumblr. [64] Feraday found queer

[64] Both Miltersen's participants and mine were primarily drawn from Tumblr.

youth creating "hundreds of new, incredibly specific identity words that describe very particular experiences of gender and desire" as a way to resist cis-hetero-normativity and to create space for themselves. Miltersen's participants, and the community that they are part of, might likewise be seen as resisting the gender binary and creating space for themselves in their choice of pronouns. This was also true for many of the participants in the Chapter 3 usage survey, as documented in the comments below. The specific reasons range from the intensely personal to the casual, but which all include some element of self-expression.

- My second highest set is *faun/fauns*, which I love because it sounds like my gender, which is genderfaun. It's mystical and makes you think of the creature, which I feel are both a portion of my gender expression.
- The pronoun set *Ve/Ver/Vis/Verself* stuck with me in a way I feel is resonant with my experience of myself.
- I feel like my gender is somehow "alien" or "other", not something that can be put into words through our current understanding of gender. I like the way *xe/xim/xis* and it/its pronouns feel removed of any gender
- *e/em* and *ai/ain* i came across back then too and i like the sound, but didnt start using them in some situations til last yr bc most ppl wont know them. online thats easier bc i can link out to a page demonstrating their use. i rlly like the way they sound, and *ai/ain* has robot vibes and i love robots
- *Fae* is my [i]deal set because it sounds more like me/how I feel.
- *xe/xim/xier/xiers/xierself* is a specific pronoun that is a mix of *xe/xem* [and] *he/him*, that I find easier to pronounce (pronounced the same as *ze/zem* pronouns), This is my main pronoun set, it gives me a distinct feeling of 98% disconnect from a gendered label, 2% leaning masculine. It makes me feel like me when I'm called my preferred pronouns.
- because they're the one i vibe with. i know that's a silly answer. i don't have a better one.
- they express who i am as a person

- *Ae/aer* was kind of an afterthought- I honestly like being perceived in a feminine light under the right circumstances, but *she/her* doesn't bode well with me. I much prefer *ae/aer* since it's adjacent

- *Zie/hir/hirs* feels like an intentional queering of the concept of gender, like a smashing together of different genders in a unique way. It feels like the pronoun equivalent of men's boxers and jeans with a sparkly blouse and a buzz cut and eyeshadow and men's combat boots.

- I basically collect pronouns and get joy from the expression of that. I choose them for how they sound, for what they're about, for showing that I'm xenogender (not all neopronoun users are xenogender but a lot of people assume that).

- *Vi/Vim* started mostly as a joke in reference to tools used in my career (vi and vim for editing on Unix platforms). I've grown attached to the idea, though

- *oce/ocem/ocems/oceanself* pronouns describe something about how I feel my gender (which is related to the ocean as a concept).

- Deciding to use *bud/budself* set was a big step for me. It made me anxious; I was very afraid of being made fun of, which almost made me talk myself out of doing so. I used to use *hie/hir* and *ke/ker* alongside he/him, but after a couple of years of doing so, I realized *hie* and *ke* weren't giving me the kind of happiness about pronouns that I wanted. [...] I absolutely couldn't deny it, *bud/budself* made me feel good about my gender in a way I didn't realize was a possibility.

- *Beep/Beeps*: I realized that language is constantly evolving and I could use words personal to me to describe myself on a level that other pronouns don't encapsulate.

- Im neurodivergent[65], so i view gender a bit weird, and i relate my gende[r] heavily to vampires/vampirism and *vey/vem* gave me the most euphoria in context to vampires and gender

[65] Neurodivergent is a word referring to a neurological development or state that is atypical relative to the neurotypical norm. This can include neurodevelopmental disorders and mental illnesses. For more information, see Milton et al. (2020).

- I use *vi/vix* only with my partner, as it is far more prominent than the other sets, and reveals a lot more about my identity and sense of self than I care for most people to know.

- *Ne/nem/nir* pronouns have stood out to me as particularly suited to my personal gender since I first encountered them in highschool. They've felt like "mine" for a long time and are, in my opinion, some of the most aesthetically pleasing neopronouns (second only to *ey/em/eir*, which I find more aesthetically pleasant but less personally applicable).

- My pronouns would ideally compliment my gender expression–my ideal expression would be like, glittery, feminine, fae masculinity or soft scholarly masculinity or ungendered feral bog creature. And my pronouns would align with and help me express those things.

Clearly, this use of pronouns is not the same as someone choosing *ey/em/eir* because it seems like the most efficient substitute for an indefinite *they*, as discussed in the pronoun wars in Section 2.3. It would seem, instead, to resolve the competition of the pronoun wars into a new era of specialization. There is no longer direct competition between, say, *they* and *ze* as the most efficient gender-neutral personal pronoun. Instead, participants are using pronouns, and even coining pronouns, when they have the intention to express something specific about themselves.

This is curious for a closed class. By definition, closed classes are less amenable to the addition of new items, and should only acquire new members very slowly (C. Anderson 2018). Yet within this specific language community, there is a vast array of novel pronouns. To come up with these novel pronouns and process them in a timely manner [66], speakers must be drawing on linguistic resources that are not very well-understood. In theory, potential new pronoun forms could be infinite. And yet, again, the same sets recurred over and over again in the timeline of coinages. This suggests that there are patterns that speakers are drawing on, just as DiGirolamo (2012) and E. Cohen & Bat-El (2012) have found phonological patterns in English blends. Like neopronouns, blends theoretically allow for a much greater variety of forms than is actually seen, indicating that coiners are following "rules" that they are unaware of.

It is these rules that this section below attempts to uncover. What consistencies are there in the creation of these pronouns? What principles might underlie

[66] If processing *is* being done in a timely manner, an issue that is not yet established.

them? And what does that indicate about the structure of English pronouns in the minds of speakers? The hypothesis of this section is that neopronouns will largely analogize existing English pronouns. Based on data collected in Callaway (2016), most pronouns will analogize one specific set rather than multiple sets. I hypothesize also that consonants will be chosen for their distinctiveness from existing pronouns, but vowels will be chosen for their similarities. Finally, I hypothesize that pronouns with complex bases will tend to analogize English pronouns with relatively simple inflectional morphology.

4.3 Typology of Neopronouns

Most neopronouns, especially ones that have obtained some measure of use, follow the morphological structure of an existing English pronoun set. Although they are spelled in a wide variety of ways, many copy rhyme or coda from the set they are based on. They form, therefore, morphological "natural classes" of the type identified by Joan L Bybee & Moder (1983), in which there is a morphological class of items with similar morphology around the most phonetically prototypical family member. Truong (2019) has analyzed the typology of neopronouns in English. They divide the dimensions of variation into five areas of analysis: formant allomorphy, syncretism, possessive compositionality, and reflexive compositionality.

Formant allomorphy describes a pattern where the subject is contrasted with all the others, so that non-subject forms resemble each other much more closely than they resemble the subject (16). An example of this in paleopronouns is found in she/her/hers/herself, where the base is *she* for nominative forms, but *her* for the oblique forms. Truong represents allomorphy with A/B, so that she/her is ABBB, while something like we/us/our/ours is ABCC.

Syncretism, of course, refers to the collapsing of forms. This is seen often but unevenly in English paleopronouns. *It*, for example, collapses subject and object into a single form, as well as determiner and possessive. *He* keeps subject and object separate, but collapses determiner and possessive into one form. *She* collapses object and determiner into a single form, and keeps subject and possessive separate. Which cases are syncretized in a given neopronoun can make it more closely analogize a particular paleopronoun set.

Compositionality of the possessive and reflexive also differ in paleopronouns. Is the independent possessive built on OBJ+s as in *hers* or *its*? Is it built on the dependant possessive+s as in *theirs*? Or is a fusional form as in *his*? Likewise, reflexives can be built on object forms (*himself*) or possessive forms (*ourselves*). Note that variation exists in individual paleopronouns as well. The forms *hisself* and *theirselves*, which use the possessive rather than the object form, exist in vernacular English (Siemund 2002: p. 4).

I have used all of Truong (2019)'s categories to typologize the pronouns, as well as other orthographic/phonological elements like number of syllables, initial consonants, and base syllable types (CV, CVC, etc). I have also used a category called *base type*. The values for these are stable, reduced, consonantal, and alternating. Alternating bases show strong formant allomorphy, like *ze/hir/hirs*. They have no single identifiable base. Consonantal types have weaker formant allomorphy with an initial characterizing consonant and an alternating rhyme, like *rey/rem/reyr/reyrs*. Everything except the first consonant changes in accordance with the original paradigm. Reduced types are found largely in neopronouns: a full-word base appears only in one or two cases and appears in a reduced form in other forms. This reduction is not based on an existing paleopronoun paradigm; usually, it will involve loss of some of the final consonants. Finally, stable base remains whole and unvarying in all case forms.

The forms analyzed in the following section are drawn from several sources: The Gender Neutral Pronoun Blog (anonymous 2010); the Gender-Neutral Pronoun Frequently Asked Questions (Williams 2004); Baron (2020b); The Pronoun Dressing Room (failedslacker 2021); pronouns people gave in the survey from 2016; and pronouns people gave in the survey from Chapter 3. Duplicates were removed and spelling variants were pruned somewhat (e.g. removing sets that were otherwise identical but where one's subject form was *ze* and the other was *zie*). The complete list can be found in Appendix B. I do not claim that the resulting list of 273 forms is a comprehensive list of English neopronouns – that would be impossible – but it is certainly a significant chunk of some of the most popular forms people have suggested.

There were 273 total neopronoun forms in the dataset. 98 of these were not clearly analogically paradigmatic and will be discussed in their own section. Those that were clearly paradigmatic were analyzed to find consistencies within

the paradigms. Note that the pronunciations are rarely discussed within the community, and are not always clear.

Table 4.1 summarizes the typology of the pronouns as a whole. The first row shows how many sets appeared in each pronoun paradigm. The second row shows the syllable types of the base – either a whole word, or a syllable such as CV, CVC, etc. The third row shows where there is allomorphy in the base and what patterns – for example, she/her/her/hers/herself is ABBBB. The fourth row shows how many sets had which base types: stable bases (as in *it/its*), reduced bases (as in many neopronouns), consonant bases (like *they/them/their*), or alternating bases (like *she/her*). The fifth row summarizes the mean number of syllables in all sets. The sixth row shows how many sets were nounself pronouns. The seventh row shows how many sets had vowel ablaut, as in *he/him*, and the seventh shows how many had consonantal alternation, as in *she/her*.

Table 4.1: Pronoun Summary

Paradigm	they: 18	he: 19	she: 27	it: 111	other: 98
Stem	word: 164	CV: 65	CVC: 15	VC: 15	other: 13
Allomorphy	AAAAA: 113	ABBBB: 71	ABCCB: 36	ABCCC: 29	Other: 24
Stem Type	stable: 133	reduced: 71	consonantal: 44	alternating: 25	
Syllables	mean: 1.22	median: 1	max: 3		
Nounself	no: 111	yes: 162			
Ablaut	no: 221	yes: 52			
Alternation	no: 263	yes: 10			

As an additional general comparison, I created a frequency count of all characters in the non-nounself pronoun sets and compared this to an general English character frequency count (Norvig 2013). Nounself pronouns were left out because they would say more about the types of noun selected[67] than the types of letters chosen when no semantic concerns operated. The compared rankings can be see in Table 4.2. The natural ranking column shows the frequency ranks of the individual letters in English according to Norvig (2013). The pronoun ranking shows the frequency ranks of the individual letters in the pronouns dataset I am using for this chapter. Each letter also has a listed percentage; this is the percent of the dataset that is made up of that letter.

[67] Discussion on this to follow.

Table 4.2: Rankings of English Characters

rank	natural ranking	natural %	pronouns ranking	pronouns %
1	e	12.5	e	18.3
2	t	9.3	s	15.5
3	a	8.0	r	11.3
4	o	7.6	i	11.0
5	i	7.6	h	8.5
6	n	7.2	n	4.8
7	s	6.5	a	4.2
8	r	6.3	m	3.8
9	h	5.1	z	3.8
10	l	4.1	y	2.8
11	d	3.8	t	2.3
12	c	3.3	c	2.1
13	u	2.7	v	1.9
14	m	2.5	o	1.7
15	f	2.4	x	1.6
16	p	2.1	k	1.4
17	g	1.9	l	1.1
18	w	1.7	d	1.0
19	y	1.7	j	1.0
20	b	1.5	u	0.6
21	v	1.1	p	0.6
22	k	0.5	w	0.3
23	x	0.2	q	0.3
24	j	0.1	b	0.1
25	q	0.1	f	0.0
26	z	0.1	g	0.0

These were examined for sound symbolism similar to the type found in the field of Pokemon names (see Kawahara, Noto & Kumagai (2018), Kawahara, Godoy & Kumagai (2020), and Kawahara, Godoy & Kumagai (2021) among others) by examining letter distributions to see if there were any shared patterns among particular categories. No such symbolism was found (though for more specific groupings, such as neopronouns that sound more "masculine" or "feminine", such symbolism might emerge more). There were, however, some patterns in the letter distribution for the pronouns as a whole. Letters <e>, <s>, <r>, and <i> were high-frequency letters in the pronouns just as they are in English in general. The letters <h> and <m> were higher-ranked than normal, but that is as expected given that <h> would copy from *he/him* and the -m is an important case-marker in the *him* and *them* sets.

<Z> is 9th, <y> is 11th, and <x> is 15th compared to 26th, 20th, and 24th in general English, which is jarring if you don't know how popular these letters are for neopronoun creation. It may be specifically because they're so rare in English. They look unusual (and perhaps "cool") which means you're unlikely to mistake the neopronouns for anything else. <X> in particular has been very popular in nonbinary language creation generally, as the Spanish -x, the English honorific Mx., and the German *xiem* shows – perhaps due to its use as a variable or unspecified item? This could also be a factor in <z>'s popularity. <Q>, despite its similar rarity, doesn't have the same popularity, appearing 23rd in the pronouns list compared to 26th in the general list. <G>, <f>, <p>, and <b> are all disproportionately unpopular letters; no non-nounself pronoun used <f> or <g> at all. This may say something about the relative perceived "coolness", or the relative contrastiveness, of these sounds. Otherwise, there are no particular consonant classes that get used more frequently for neopronouns. Vowels are another story, as will be seen later.

4.3.1 Paradigm Summaries

They-Paradigm

18 of the 175 paradigmatic forms were they-paradigm. All but two were consonantal types. The two non-consonantal ones started with vowels. The Spivak set, *e(y)/em/eir/emself*, simply involves taking the <th> off. The other set is *ae/em/aer/aers/aerself*, clearly modeled on a similar principle. There was very

Table 4.3: They Paradigm

	Subject	**Object**	**Poss. Det.**	**Ind. Poss.**	**Refl.**
Original	they	them	their	theirs	themself
Forms	A	B	C	C+s	B/Cself
Structure	.	.m	.r	.rs	.m/rself

little innovation in this set. Every single instance was either *they* with a new initial consonant or without an initial consonant at all. Versions with <d>, <j>, <jh>, <n>, <s>, <t>, <x>, <y>, and <z> all appeared. Other than an initial consonant, the only variation was how the vowels were spelled – generally either <e>, <ey>, or <ae> in the subject, <i> or <e> in the object, and <ae>, <ei>, <e>, or <i> in the possessive forms.

I believe the very low innovativeness in structure is due to the low syncretism and alternating consonants in the minimal form. Speakers have to come up with a form that sounds good on its own, with -m, with -r, and with -rs, and remember which element goes where. Any additional consonants in the coda could risk conflicting with one or more or the required endings, since there are an extremely limited number of consonants in English that could combine with both -m and -rs (Haladewicz-Grzelak 2010: p. 40). Those that could combine with both are less sonorous than either, and therefore would need to be on the outside, not the inside, of the cluster, at least in English (Clements 1990). This makes it extremely difficult to create a closed syllable that would serve as a good base for this paradigm. Hence, pronoun creators tend to retain the entire rhyme and only change the onset. This also aligns with the fact that Willerman (1994) finds that phonetic complexity is suboptimal for pronouns.

He-Paradigm

19 of the 175 paradigmatic forms were he-paradigm. Typically, he-set pronouns are consonantal. They have a single initial characterizing consonant, a variable vowel, and a consonant that changes based on the case. *Lee/lim/lis/lis/limself* is a good example of this type of pronoun. The possessive -s element is also sometimes spelled -z, likely in recognition of its pronunciation and to differentiate

Table 4.4: He Paradigm

	Subject	Object	Poss. Det.	Ind. Poss.	Refl.
Original	he	him	his	his	himself
Forms	A	B	C	C	B/Cself
Minimal	.	.m	.s	.s	.m/sself

it from the original. However, some sets level the vowel variation to produce a stable base variant, like *dae/daem/daes/daes/demself*. Some also use the possessive reflexive, analogous to *hisself*, like *le/lem/les/les/lesself*. This was seen in the *they* set with *theirself* as well.

There were three alternating sets as well. Two of them introduced a she-like SHHH pattern: *shem/hem/hes/hes/hemself*, and *se/hem/hes/hes/hemself*. I believe this use of a *she*-like initial pattern with a *he*-paradigm set is meant to combine the two paradigms for a greater sense of genderqueerness. One instead goes *e/rim/ris/ris/risself*. This very unusual set may take its <r> from the final letter of *her*, hence its lack in the nominative.

She-Paradigm

Table 4.5: She Paradigm

	Subject	Object	Poss. Det.	Ind. Poss.	Refl.
Original	she	her	her	hers	herself
Forms	A	B	B	B+s	Bself
Minimal	.	.r	.r	.rs	.rself

27 of the 175 paradigmatic forms were she-paradigm. In the form that most closely resembles the parent, this is an ABBB pronoun with initial consonant alternation. Forms of this type typically have a sibilant initial consonant in the A form and an <h> in the B form. They also change the nucleus spelling in some way, probably with the intention of representing the shift between [i] and the syllabic [r] in *she/her*. *Ze/hir/hir/hirs/hirself* is an excellent example of this type.

However, many more forms have levelled the formant allomorphy partly or wholly to produce consonant or stable bases. *Ce/cir/cir/cirs/cirself* is a consonantal she-paradigm neopronoun. It retains the change of vowel, but jettisons the consonant shifts. *Fae/faer/faer/faers/faerself* is a stable she-paradigm neopronoun. The base, fae-, remains exactly the same. The case is indicated by the addition of -r in all the non-subject pronouns. This is the most minimal form of she-paradigm.

There was much more variation in the form of *she*-paradigms than in the *they* and *he* sets. I believe this is because the minimal paradigm form only uses <r> plus the possessive -s. This means less negotiation of multiple endings (in they, -m, -r, and -rs, and in he, -m and -s). This leaves more room for creativity and less to remember. The finding aligns with Willerman & Lindblom (1991), which finds that pronouns are more likely to be articulatorily simple: "the small paradigm size of closed-class words makes relatively small perceptual demands on the listener when it comes to discriminating among phonemes within the paradigm. Under a criterion of least effort, reduced perceptual needs give rise to articulatory simplification, and render the perceptual saliency provided by complex articulations superfluous." Although Willerman's work discusses complexity in individual phonemes, less complex syllable structures would serve a similar role.

It-Paradigm

Table 4.6: It Paradigm

	Subject	**Object**	**Poss. Det.**	**Ind. Poss.**	**Refl.**
Original	it	it	its	its	itself
Forms	A	A	A+s	A+s	Aself
Minimal	.	.	.s	.s	.self

111 of the 175 paradigmatic forms were it-paradigm. Declension on *it* is minimal. It's not marked for subject and object, and the possessive simply has an -s on it, like any possessive noun would. This means that variation is extremely marked in it-paradigm sets, because the phonological demands are very limited. It's the only paradigm set in which closed syllables (22) were more common than open syllables (6) in non-noun forms.

Many nounself pronouns also follow the *it*-paradigm – 88 *it* pronouns were nounself pronouns. Those that don't usually have something going on with reduction of the base. It pronouns are, definitionally, stable bases. The base stays the same in the subject and object, and gets -s for the possessive and -self for the reflexive. Some orthographically resemble *it*, like *et/ets/etself* or *sit/sits/sitself*. Others, like *sim/sims*/simself, are more creative but still abstract. Still others, like *pup/pups/pupself*, are simply words. Occasional two-syllable words, like *tiger* or *petal*, can be found as well, which doesn't happen in other paradigms.

Mixed-Paradigm and Others

98 pronouns had mixed, uncertain, or other types of paradigm. The most common situation for these was *it*-declension with reduction of the base. I will discuss these further in the next section, so for the remainder of this section other non-nounself paradigms will be discussed. There were 26 of these, and they were quite diverse.

Three were straightforward blends of he and she: *he'er/him'er/his'er/his'er's /hiserself*, *heesh/herm/hiser/hisers/hermself*, *hie/hier/hie/hie/himself*. Others were more subtle blends, having unique base consonants but mixing the paradigm patterns, like *se/serm/sers/serms/sermsself*. The pattern of <m> vs <s> roughly matches the paradigm of the he-paradigm, but the r's and initial sibilants recall the she-paradigm, and the independent possessive form is object+S, the way it is for the she-paradigm. Similar blending took place in the set *ve/ver/vis/vis/visself*. This set declines *she/her/his/his/hisself*. An almost identical set, *ve/vis/vir/virs/verself*, declines *she/his/her/hers/herself*. *Shklee/shklim/shklis/shkler/shklers*, a parodic set from the television show Futurama that is nevertheless so frequently mentioned that it would be remiss not to discuss it, declines like *he/him/his/her/hers*.[68]

Other pronouns took pieces from existing paradigm sets without fully invoking them. *En/en/er/ers/enself* and *zed/zed/zeir/zeirs/zeirself* are clearly evoking the possessive -r from the she or they paradigms for its possessives, though they differ on reflexive form. *En/ar/es/es/esself* evokes the non-subject -r in the she-paradigm for the object and the possessive -s of both the it and he paradigms. *Er/im/zayn/zayn/imself* begins straightforwardly with modified version of her/him and then proceeds into parts unknown with *zayn*. *Ir/im/iro /iros/iroself* follows a similar pattern with a different alternating element. *Iel/iel/ies/ies/iemself*, probably based on French neopronouns, would be a straightfor-

[68] It is not clear where the reflexive fits into this paradigm. For more in-universe context on this pronoun set, see here.

ward he-paradigm were it not that it is AABBC instead of ABCCC. The curious thing is that its reflexive contains *iemself*, clearly an evocation of himself, but its object is not *iem*.

There are a few odder creations that make no attempt to reference English paradigms. *Soloc/sebita/seniri/siculis/sulago* is extremely nonparadigmatic and its only characterizing element is the initial <s>. Williams (2004) credits these to Austin Homer, 1998, who apparently gave the following reasoning: "Subject - soloc (SOH-lohk) -This comes from "solo", meaning single. Object - sebita (SEH-bee-tah) - This comes from the word "celibate", which means unmarried or abstinent - the ultimate singular. Possessive Adjective - seniri (sen-NEE-ree) - This comes from the word "center". A person's possessions are usually the center of that person's attention. Possessive Pronoun - siculis (sih-KOO-lihs) - This is a modified version of the word "secure" - people like for their possessions to be secure. Reflexive - sulago (soo-LAH-goh) - This is a combination of "soul" and "ghost", which are only degrees away from one's "self"." This is more semantics than generally goes into pronoun coinage. *Po/xe/jhe/jhes/jheself* is almost as unusual. Although it gestures at the the possessive -s and the -self reflexive, it otherwise completely changes forms in subject/object/possessive. Baron (2020b) gives this as cited in 1976's *Words and Women: New Language in New Times* by by Casey Miller and Kate Swift, but I have been unable to find information about the coiner or their intentions. *Iz/izen/izesi*[69] likewise makes no attempt to even gesture at a paradigm. *Te/tes/het/het/hetself* was apparently coined by Kari Kirsch in 2001 to vaguely resemble a blend of *they* and *it* (Williams 2004), but it doesn't use any of the case-marking consonants of either in the places where they should appear if it was paradigmatic.

[69] No information was given about the case assignment of these forms.

All in all, the non-nounself "other" paradigms tend to either attempt to blend he/she to produce a more truly neutral form, or pave entirely new territory that doesn't reference existing prounouns at all. The latter type is relatively rare and, when coined, doesn't seem to see much use. Although there are many mixed or other paradigms, they were highly varied. Therefore, they don't seem to compete with the other paradigms.

4.3.2 Nounself Pronouns

Morphologically, there's little to say about the non-reducing forms. They decline like *it*-paradigm pronouns, with a stable base that gets -s in the possessive and -self in the reflexive. Of 162 nounself pronouns, 84 were like this – a majority, but not by much. Only 11 had a base of more than one syllable. These were *computes*, *error*, *inter*, *leo*, *meow*, *mera*, *otter*, *simula*, *tiger*, and *whisker*. What is remarkable about bare-base nounself pronouns is not their morphology but their diversity. Aardvarks, shrimps, crones, and beetles are just some of the seemingly unglamorous mental images that the pronouns evoke.

I sorted the nouns used into types, based partly on the Pronoun Dressing Room's classifications and partly on my own analysis for those that did not exist in the Pronoun Dressing Room. Figure 4.1 below shows the distribution of these.

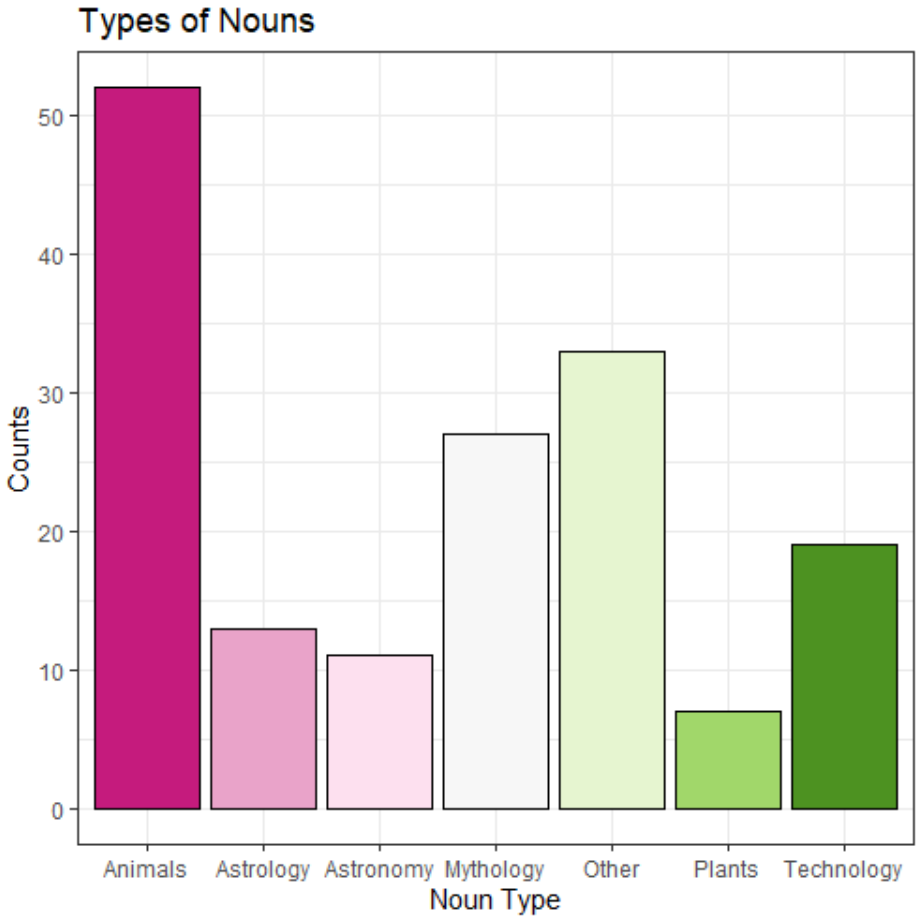

Figure 4.1: Noun Types

Animals are clearly the most popular, followed by the miscellaneous group of other things, which included natural phenomena like oceans and fire, magic, and visual effects like glitter. The mythology category was third, and included gods, monsters, and creatures from folklore like chupacabras. Technology included references to robots (popular), AIs, mechanics, and other similar items. Astrology related purely to the zodiac, while astronomy referenced stars, planets, nebulae, and other heavenly bodies. Plants, the least popular single category, included plant parts like buds, leaves, and flowers.

Alternating nounself pronouns have a little more morphological complexity than their bare-base counterparts. They typically have some kind of formant allomorphy, where a whole noun base is contrasted with a reduced one. These are often ABBB, like *cy/cyb/cybs/cybself* or ABCC, like *dra/drag/drago/drago/dragoself* or *cy/cyb/cyber/cybers/cyberself*. This particular type of nounself pronoun is much more likely to have 2+ syllables. Of 55 pronouns with 2+ minimal syllables, 33 were mixed or other paradigm (the rest were *it*-paradigm).

With reduced-base nounself pronouns, generally the subject form is reduced in oblique forms so that it has fewer or no consonants at the end. This is perhaps related to the fact that *he*, *she*, and *they* all contrast with their non-subject forms by being open syllables. Very approximately, the pattern that they are replicating is an ABBB allomorphy on the pattern CV/CVC/CVC(s)/CVC-self. The possessive -s ending may appear on the determiner, possessive, both, or neither, but the reduction of consonants in the subject is fairly consistent, although not universal.

A few particularly creative pronouns stood out in the nounself category. *Whomp/whizz/whirr/whirr/whizzself* uses not one but three separate base words (not nouns), and the endings are interestingly resonant of the -s in *his* and the -r in *their*. Even though this is clearly not based on a particular form, it still gestures at the structure of existing English pronouns. One particularly non-conformist participant in my survey gave me *file/the text file/the file* as one of the file's pronoun sets[70]. This was somewhat similar to *this one/that one/that one's/that oneself* as given to me by another participant in that it uses a noun phrase, but much more innovative. Extreme variation of this kind is, however, very rare, and generally located in participants with high numbers of pronouns and a playful approach to gender.

[70] Case assignment is unclear. It may be subject/object/possessive.

It should be noted that 4 nounself pronouns used the *she*-paradigm. There were three variations of *fae/faer/faer/faers/faerself* and the set *shh/shhr/shhr/shhrs /shhrself*. The second set is particularly interesting – *shhs* would be much more difficult to pronounce than *shhrs* because it would involve two sibilants with no vowel. Hence the choice of she-paradigm actually prevents a forbidden and extremely difficult syllable from appearing. In the case of *fae/faer*, the noun it's based on is the word *faerie*. The machinery of the paradigm actually allows more of the word to appear. So while *it/its* and variation are the default for nounself pronouns, in some cases, other paradigms may be utilized for a particular effect.

4.3.3 Unifying Paradigms

Consider the following table of English personal pronouns.

Table 4.7: English Pronoun Forms

Subject	Object	Poss. Determiner	Ind. Possessive	Reflexive
I	me	my	mine	myself
we	us	our	ours	ourselves
you	you	your	yours	yourself
she	her	her	hers	herself
he	him	his	his	himself
it	it	its	its	itself
they	them	their	theirs	themselves

We can see three different types of formant allomorphy patterns: a strong base allomorphy where the subject form is radically different from the others, which share some features (seen in *I*, *we*, and *she*); a weak base allomorphy where there is a characterizing initial consonant but the rhyme changes throughout the first three cases(seen in *he* and *they*); and a stable base that gets additional morphology added on for the possessive and reflexive (seen in *you* and *it*). In the first two types, the object typically have some kind of final consonant, and in the possessive they all do. In the third person, these tend to involve [m], [r], and [s]. Minimally, based both on the table above and the neopronoun forms, we could express this as follows.[71]:

Speakers of English referencing these pronouns to coin new versions seem to treat them as agglutinating forms with an initial base of varying length that

[71] I do not necessarily contend that this minimal paradigm as presented exists in the mind of speakers. The presentation here is only intended to demonstrate what appears in the pronouns themselves.

Table 4.8: Minimal Pronoun Paradigm

Subject	Object	Poss. Det.	Ind. Poss.	Reflexive
.	.+Ø /-m/-r	.+-s/-r	POSS.DET+Ø/s	OBJ/POSS+self

characterizes gender and a final consonant that characterizes grammatical form. Morphologically, this is simply not an accurate analysis of the pronouns themselves. English pronouns cases are fusional, not agglutinating, and have low divisability (Simpson 2005: p. 11). It is true, however, that the same patterns – r or m in the object, r or s in the possessive determiner — occur across multiple pronouns, especially but not exclusively in the third person. By contrast, initial consonants tend not to be copied across paradigms, with the exception of the h in her/him. It seems that, in analyzing these forms to create new ones, speakers of English observe these general patterns and create new forms that likewise follow them.

This is akin to other examples of analogy and reanalysis in language change, on which there is a wide literature. Specific examples include English strengthened possessive pronouns (C. L. Allen 2002), Dutch linking morphemes (Krott, Baayen & Schreuder 2001), and Arawak person-number markers (Carvalho 2016), and more general overviews include J. M. Anderson (1992), Lahiri (2003), and Fertig (2013).

4.4 Analogical Rules of Neopronouns

Based on the characteristics of the neopronouns listed above, I posit that there are certain features that participants tend to incorporate to the creation of English neopronouns, likely drawn from analogy with existing English third-person pronouns:

- Single syllable base
- Front vowel nucleus
- Consistent case endings borrowed from a single paradigm
- Consistent base (may or may not be semantically contentful)

- More base complexity requires less paradigmatic complexity

Most neopronouns will not have every single feature listed here, but most match the majority of them. Most of these features require that the neopronoun be as close to existing English pronouns, orthographically and morphologically, as possible. The final characteristic obviously prevents the pronoun from developing unpronounceable or difficult-to-remember complexity. Nounself pronouns can avoid following some of these characteristics because they are built on a recognizable semantic core, which takes precedence over some of the phonetic requirements otherwise generally relevant for abstract neopronouns. Below, each feature is discussed.

4.4.1 Single syllable base

Of 273 pronoun forms, 218 were single-syllable in the base form (obviously, the reflexive adds a syllable) – 79.9%. There was, as Table 4.1 shows, a mean of 1.22 and a median of 1. Simply put, most pronouns in the set were single syllables. This is not surprising; most English personal pronouns are single-syllable, as indeed are many other grammatical lexemes.

Of those that were multisyllabic, only 5 were not nounself pronouns, suggesting that multisyllabic bases generally occur in the context of nounself pronouns. In this case, it seems getting the semantics of the base across is more important than limiting number of syllables to one. Even in the 163 neopronouns, though, only 51 were multisyllabic – just under a third. Further, participants often clip multisyllabic words to make them shorter, indicating that long words are not ideal for a pronoun. Examples include *vamp*, drawn from *vampire*, *were*, drawn from *werewolf*, or *nep*, drawn from *neptune*. And many multisyllabic words were often clipped from even longer forms, such as *arom* from *aromantic* or *drago* from *dragon*.

Thus, speakers are aware that is desirable for a pronoun not to be too long, even when coining nounself pronouns, which could potentially have much longer average bases than they generally do. This aligns with Ivanova & Litrovnik (2015)'s finding that pronouns tend to be shorter than content words.

4.4.2 Front vowel nucleus

Front vowels predominate. Only 4 of 112 non-nounself pronouns did not use a front vowel (nounself pronouns were not tested on this category because they have word-bases and thus the vowel choice is controlled by word, not other factors). The majority seem to have [i] or [ei] in subject, alternating with a lax version of the same vowel in some non-subject cases, although of course orthography prevents complete certainty. In many forms, they seem to be intended to be pronounced like the paradigm they are copied from, although pronunciation is of course not always clear. More variety is present with the stable bases, probably because they do not need to alternate between tense and lax. Appearance of particular vowels also varied by paradigm, as Figure 4.2 shows.

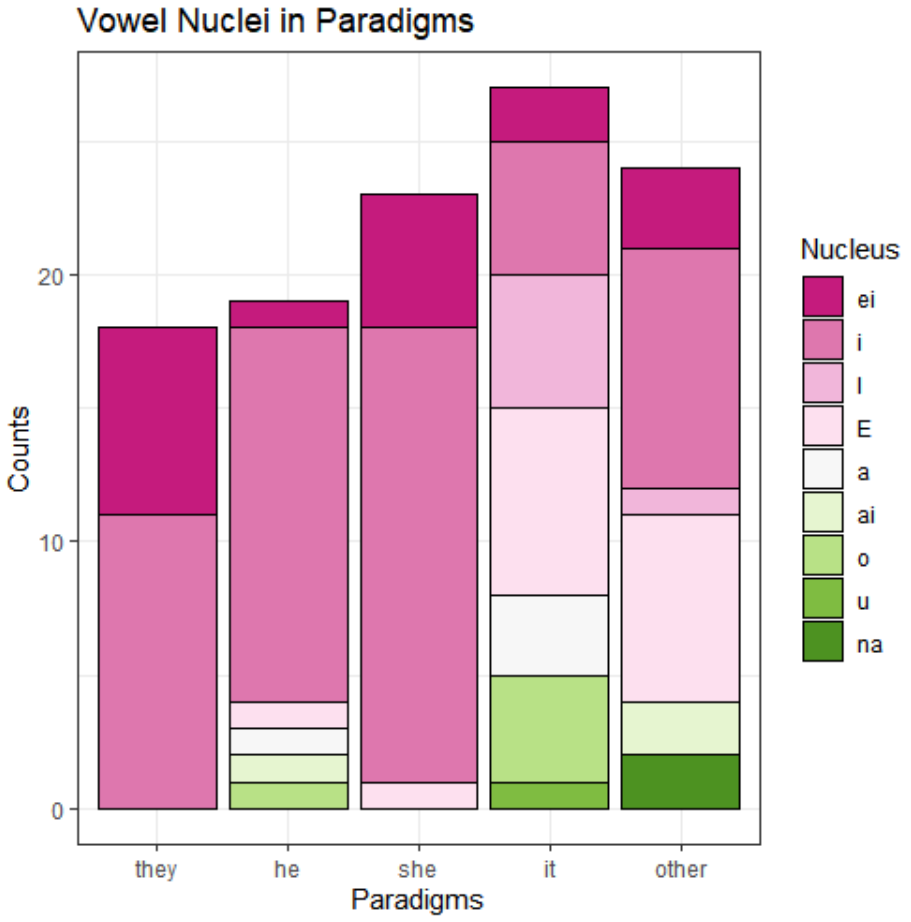

Figure 4.2: Stem Vowels in Paradigms

Although [a], [ai], [o], and [u] appeared, they were not common in any set. Indeed, they appeared only occasionally in the *he* paradigm and with slightly more frequency in the *it* paradigm [72]. As usual, *it* is more permissive than any other paradigmatic category. Unusually, even the nonparadigmatic non-nounself pronouns make very little use of non-front vowels.

[72] Those marked NA had multiple syllables and therefore no single nucleus.

The analogical basis is likely that front vowels are very common in English third-person pronouns. Therefore, when a person wishes to coin an English third-person pronoun they often choose a front vowel unless they have motivation to do otherwise (such as wanting to invoke some other word). Note that this concern only seems to operate when there is no semantic content to be concerned about.

4.4.3 Consistent case endings

Simply put, most of the pronoun forms closely analogized existing paradigms, especially in terms of the rhyme. 175, over half, were either *he*, *she*, *they*, or *it* sets. Another 69 had the case endings of the *it* set (zero, zero, -s, -s, -self) but also incorporated some reduction of the base. Altogether, there were only 29 pronoun forms that did *not* include a consistent saycase ending structure as shown in Table 4.8. This is most likely another way to reduce mental load on speakers. Remembering an entirely new structure and using it on the fly would most likely require much more effort than using a paradigm that exactly matches one that the speaker uses every day.

4.4.4 Consistent base

Consistency in base can be understood broadly or narrowly. Broadly speaking, there should be some kind of element that remains the same throughout the paradigm to make it clear that all forms are linked. 133, the plurality, of the pronouns had a stable base. But if the whole base is not stable, there is still a preference for the initial consonant to remain the same. When pronouns had reduced forms, the reduction always removed characters from the *end*, not the beginning, of the syllable. Stable bases, reduced bases, and consonantal bases together made up 248 of the pronouns – at 90%, the vast majority. Thus, speakers preferred some kind of characterizing element at the beginning, and the more the better.

To frame this a slightly different way, only 10 of 273 pronouns underwent initial alternation, the way she/her does. There would likely be a few more if I included every single possible spelling variant of the *ze/hir* set, but the *ze/hir* set, in every spelling variant I have found, also has a non-alternating version (*ze/zir*, *xe/xir*, etc). Thus, although speakers are certainly capable of using and understanding pronouns like the *ze/hir* set (as its popularity in the 90s shows), overall, consistency is preferable to inconsistency.

Among these 10 sets, six used the kind of sibilant/h-sound alternation that is also used with she/her, or something approximating it. *cshe/cher/cher/chers/cherself* is the most unusual one, and it is not clear how the first form is meant to be pronounced. Another, *e/rim/ris/-/-*, uses an alternation between a bare base and a consonant (intended probably to be the -r from her. Only three pronouns have very strongly inconsistent forms, where there is no link whatsoever between the forms of the base – *er/im/zayn*, *te/tes/het*, and *po/xe/jhe*. This kind of inconsistency is clearly dispreferred. The preference for stability can also be seen in the allomorphy types. 113 were AAAAA, with no changes at all. Another 71 were ABBBB, with limited changes.

The preference for stability over instability probably relates again to reducing what a speaker has to remember. The inherent stability of the *it* paradigm is one factor that may contribute to its strong popularity.

It is also possible that this desire for stability can explain why nounself pronouns can be so freely created. It is not that they are better pronouns than non-nounself pronouns. It is simply that speakers already know the nouns, and the speaker does not have to remember the shape of the base. Then, since they are almost all it-paradigm, there is very little to no allomorphy. This allows room for more complexity in the base to flourish, as we will see below.

4.4.5 Stem complexity vs paradigmatic complexity

This is perhaps the most complex of the characteristics, because it is a relationship between two factors. Broadly speaking, though, the more complex the paradigm structure, the less complex the base can be. The *they* paradigm set is maximally complex: there is no case syncretism. *He* is a little less complex, since it syncretises two cases. *She* is still less complex, since there is a high degree of syncretism. This is especially true where the initial alternation is erased. And,

finally, *it* is maximally simple because it only uses possessive -s and reflexive -self, and because it has total syncretism other than this. Possessive -s is general feature of nouns in English, so it can be added to almost any existing final consonant cluster. -Self is a separate morpheme, meaning it is reasonably free to combine. Thus, there are very few phonetic requirements exercised by this paradigm. Nounself pronouns are almost always *it*-paradigm, except for a few very *she*-paradigm ones, probably because the phonological complexity of many nouns prevents them from being anything else.

This inverse relationship between the phonological complexity of the base and allomorphic complexity of the paradigm can best be seen by comparing base syllable type to paradigm as seen in Figure 4.3.

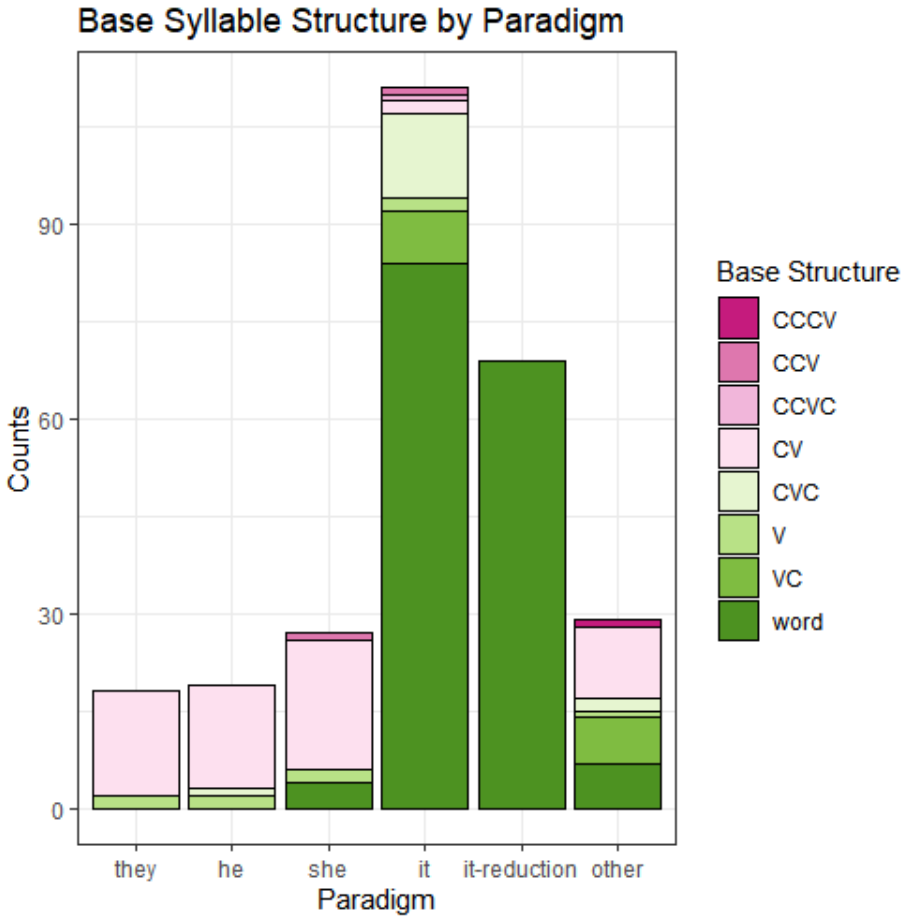

Figure 4.3: Stem Syllable Types

For most paradigms, CV syllables are the norm. In *they*, the only other option is V. *He* adds a single CVC, and *she* allows a few nounself pronouns

as well as CCV. The extreme diversity of *it* is marked. Reduced bases are only used with nounself pronouns, and, thus, the bases are always words. Where the paradigm endings are less complicated, there is more phonological and memory space for further base complexity.

4.4.6 Conclusion

As we have seen, neopronouns are extremely diverse. But within that diversity there are certain characteristics that creators of these pronouns typically seem to pay attention to in crafting the pronouns. This reveals something about how speakers think about the pronoun structure of English – the "self-administered wug test". They are aware of consistencies between paradigms and the ways that paradigms interact with each other. This aligns with research on speakers' use of existing linguistic knowledge in coining new forms (DiGirolamo 2012) (Ahyad & Becker 2020) (Benor & Levy 2006) (E. Cohen & Bat-El 2012) (Kawahara, Noto & Kumagai 2018).

The diversity of forms in these pronouns does not mean that every single pronoun appearing on this list is practical or easy to use, however. In the usage survey, of the 153 participants who wrote in pronouns, there were 94 distinct new neopronouns given; only 15 pronouns repeated. Of those repeating pronouns, all were paradigmatic. Five were they-paradigm, three were she-paradigm, three were it-paradigm, and one was he-paradigm. In other words, the pronouns that multiple speakers actually choose to go by are strongly paradigmatic, and most are abstract, despite the raw number of coined nounself pronouns available for use.

It is possible that members of the community of pronoun play, as discussed in Chapter 3 have more plasticity in their mental space of English personal pronouns. The potential forms of pronouns are much freer, but not infinite: they tend to follow certain conventions. Thus, participants in pronoun play can readily craft and use (in writing, at least) new pronouns, but only if they follow these conventions, which seem to be derived from analogy with existing third-person English pronouns. The use of familiar paradigms may scaffold the pronouns for speakers so that they are able to use the new items more freely. This means that the process of neopronoun creation is similar to other kinds

of language change that rely on analogy (Hathout 2008) (Hüning 2009) (Rácz et al. 2020).

This all assumes, however, that English speakers will find it easier to use pronouns that analogise existing pronouns closely than pronouns that don't. Testing this assumption is the subject of the next chapter.

Chapter 5

Genderqueer Pronouns in Use

5.1 Introduction to the Task

The purpose of this task is to compare the processing cost genderqueer pronouns compared to traditionally gendered pronouns. "Use" is a multimodal process for pronouns. To "use" a new pronoun accurately, you must be able to comprehend it when it's embedded in an utterance, and you must be able to produce utterances in which it is embedded. As such, to understand how people may use these pronouns in real-world language, it's necessary to measure how well people can passively understand them and how well people can produce them. A processing/production task is ideal for this purpose.

Testing the on-line processing of neutral pronouns has precedent. Hamilton (1988), Gernsbacher (1997), M. M. Miller & James (2009), Doherty & Conklin (2017), Lindqvist, Renström & Gustafsson Sendén (2019), Vergoossen et al. (2020) and Block (2019) all do so, with this last one specifically comparing GQNB and cisgender speakers' processing of genderqueer singular *they*. Studies so far, however, have not compared the performance of cisgender and GQNB speakers across other neutral pronoun options, like animate *it* and neopronouns. The current study aims to address this gap in the literature.

The task was developed as a reading experiment rather than an oral one for several reasons. Due to continuing COVID-19-related concerns, the task had to be so designed that participants could complete it on their own. Text, rather

than speech, made the task more accessible to a wider variety of participants. Additionally, participants in the exploratory survey were more comfortable sharing their pronouns in writing, and written environments (such as social media) provide more opportunities to share pronouns, as discussed in 3. Thus, for many people, their first exposure to these pronouns may well be in written sources. A future study on how well these pronouns are used in speech would be useful as well, but is beyond the scope of this dissertation. To measure processing, self-paced reading was used. To measure production, a cloze task was used.

In the next two sections, 5.1.2 ad 5.1.1, the reasons for the self-paced reading task and the cloze test will be discussed. Section 5.1.3 will cover the pronouns chosen for the task and the reasoning behind them. Section 5.2 will discuss the survey design and the participant filtering methods. Section 5.3 will begin with an overview of the participant characteristics, and then will discuss the results for the processing task, followed by the results of the production task. Finally, section 5.4 will conclude the chapter and discuss further issues still open on this question.

5.1.1 Processing Pronouns

The underlying assumption of self-paced reading tasks is that time spent reading a word is directly correlated to time spent processing it (Jegerski 2013: p. 21). Thus, when a word or phrase is ambiguous, anomalous, distant from an antecedent or otherwise confusing, participants spend more time looking at that word. When these difficulties are not present, they quickly press the button to progress to the next word.

Self-paced reading tasks have been used in conjunction with eye-tracking to measure on-line processing in articles such as Traxler, Pickering & McElree (2002), B. W. Miller (2015) and on their own in Bley-Vroman & Masterson (1989), Swets et al. (2008), Havik et al. (2009), Slevc, Rosenberg & Patel (2009), Antoine Tremblay et al. (2011), Roberts & Liszka (2013), Tucker, Idrissi & Almeida (2015), Jalbert (2018), and Beck & Weber (2020) among others. It is well established as a way to track processing of both words and sentences. It was also feasible to use without physical contact with participants.

For technical reasons, the task was designed using the stationary window technique. According to Jegerski (2013: p. 21), this method is less like real read-

ing than the moving window technique, and this should be borne in mind when analyzing the results. However, this problem should not interfere with the comparison between paragraphs within the same experiment. A non-cumulative, single-word technique was also used, because this approach is more accurate for measuring processing times of single items (Jegerski 2013: p. 20).

5.1.2 Producing Pronouns

There are several practice applications aimed at allowing people to practice and learn different gender-neutral pronouns. Some are simply non-interactive fill-in-the-blank forms, but others are interactive, such as Pronouns at Minus 18 and Practice With Pronouns.

The format of each resource differs slightly, but all display a list of the pronouns beside their grammatical label (e.g. "subject"), then show a brief paragraph in which all five forms are used. In interactive applications, the examples and pronoun sets then disappear. The participant is given a cloze-type assessment in which they must type the answer to the blank. Cloze assessments are often used for reading comprehension applications, but they have occasionally been used to test proficiency in function words as well, for example in Oller & Inal (1971) where preposition variation was the subject of study.

Since this format is used already in community-generated resources to support pronoun learning, it was replicated for this task. One change was made from the community-generated practice tests: the participants were presented with a paragraph-long story about a person's activities for their sentence blanks instead of random, disconnected sentences. This was to force an animate, singular interpretation of each pronoun. Had the sentences been unconnected to each other, the referents might have been less clear, and it is possible that some could have been interpreted as having inanimate referents (for *it*) or plural ones (for *they*).

As an additional measure of writing difficulty, time spent studying each pronoun set was also measured by measuring the total number of seconds participants spent on each page. If participants are struggling to link *it* to an animate subject in writing, they may slow down to think when filling out the blanks and spend more time on the page.[73]. Measuring time will allow that difficulty to be

[73] The relationship between pauses in writing and cognitive effort has been discussed in Schumacher et al. (1984) and Kellogg (1987)

captured. I also measured how long participants spent on the sample page of each pronoun set, to see how long they felt memorizing the sets would take.

5.1.3 Which Pronouns?

The pronouns under investigation are *he* and *she* as a control, singular *they*, animate *it*, common neopronouns, and random non-declining nonce pronouns.

My hypothesis is that familiar pronouns used in familiar ways will be lowest in processing cost. That is, *he* and *she* used for an animate single person who agrees in gender with the pronoun should be unproblematic. Broadly speaking, in previous processing literature, familiarity correlates with lower processing costs (Rutherford 2014: p. 3.1) (Ṭurcan 2016) (Clopper 2017) (Nakanishi et al. 2019: p. 11) (McLaughlin et al. 2019), supporting the idea that familiar uses of pronouns should enact a lower processing cost than unfamiliar uses. Familiar pronouns used unfamiliarly – as animate *it* and definite singular *they* – will be more difficult. I anticipate that animate *it* will be more difficult than definite singular *they* because *it* is used for many nonreferential grammatical functions in English, [74] and is also less common even among GQNB people than definite singular *they*. I hypothesize that neopronouns, being wholly unfamiliar to many participants, will be still more difficult, while the nonce pronouns will be extremely difficult.[75] Here is the hypothesized scale, from easiest to use to hardest to process and produce.

[74] For example: **It** might rain today.

[75] In the pilot study for this task, one participant thought each new nonce pronoun form was a new name.

- *He/she*
- Definite singular *they*
- Animate *it*
- Analogical neopronouns
- Nonce pronouns

Participants who have previously encountered GQNB pronouns of various sorts are hypothesized to take less time to process those pronouns than naive participants. In other words, I am hypothesizing that these items can be at least partially acquired with repeated exposure[76]. This task will not directly measure this by repeatedly exposing participants to the pronouns, but it will

[76] See, for example, Webb (2007), Tyler & Nagy (1987), Annie Tremblay (2011), and Reynolds (2016)

indirectly test it by asking participants their familiarity with each usage. That attitudes towards GQNB people and transgender people can impact comfort with genderqueer pronouns was seen in Hekanaho (2020).

Pronoun avoidance strategies were not tested in either part of this task. This is because, according to the respondents in the usage survey in Chapter 3, a true use of pronoun avoidance would rely a great deal on restructuring sentences to avoid pronouns entirely, which means it's hard to produce a naturalistic paragraph with the same structure for both pronoun avoidance and pronoun use. The best way to standardize the structures would be to replace pronouns with names on a one-to-one ratio, but this is not likely to produce a particularly naturalistic paragraph in English. In order to test the grammaticality of pronoun avoidance in English properly, it would be necessary to first collect data on how GQNB speakers typically construct their sentences to use the strategy. A study comparing genderqueer pronoun avoidance in languages like English, which rely heavily on pronouns, versus Japanese or Vietnamese, which rely less on pronouns, would be of particular interest.

5.2 Survey Methods

The survey was created using Qualtrics (Qualtrics 2005). The study design had approval from the UGA IRB. It was distributed through email, Craigslist in the Athens, Georgia Tech Gigs section[77], and on tumblr.com and the reddit.com subreddit R/SampleSize between June 18th, 2021 and July 3, 2021. 101 total participants completed the study, each of whom was rewarded with a $10 Amazon gift certificate if they left an email address for it to be sent to (some did not do so). [78] Funding for this was through the University of Georgia Willson Center's Graduate Research Award. Target participants were fluent English speakers over the age of 18. The complete survey, along with survey structure, can be found in Appendix C.

Although there were technical measures in place to prevent participants from taking the survey multiple times, they could be circumvented if an anonymous link had been the method of access. Thus, matching IP addresses were removed and only one financial incentive for participation. The survey also received a considerable number of fraudulent responses from spambots. After the first day of open responses, an additional question was added: "how did

[77] As a belated measure to prevent spam, Craigslist participants were first screened by asking them to leave their emails on Google Forms and then sending them personalized links so that they could not retake the survey.

[78] After one UK participant indicated difficulty redeeming US gift cards, international participants were sent the reward via Paypal instead.

you find out about this survey?" This helped to identify spambots, as they often gave the exact same response to the textbox several times in a row. Further identifiers included IP address, demographic responses, text box responses, and common patterns of error. Anyone who fulfilled at least one of the criteria below *and* could not be verified to be a human test-taker was removed without reward. The criteria were as follows:

1. Gave at least three wrong answers to the five comprehension check questions during the reading task.
2. Gave illogical answers to the writing section (common examples included not even using pronouns despite instructions, or leaving the writing section entirely blank).
3. Gave contradictory demographic information (the most common example of this was initially saying that they were nonbinary/genderqueer during the screening question and then later giving their gender as cisgender man or woman)
4. Had extremely unusual response times in the reading section (e.g. majority of clicks taking less than 50ms to complete, clicking in multiples of only 100 ms, same reading time for every single word)
5. Had IP addresses were strongly associated with fraud (fraud score 60+) or bot activity [79]

[79] Checked using the website ipqualityscore.com. This service was validated by also checking participants known to be humans, e.g. those who clicked the link using emails from the UGA linguistics department or people who used personalized links. No confirmed human participant had an IP address associated with bot activity or with a fraud score higher than 45.

11 participants' bot status was unclear, so they were compensated but not included in the data. This left 90 total participants in the dataset.

A quota was created to ensure that familiarity with GQNB issues was evenly distributed throughout the participant group. Participants were asked a screening question at the beginning of the survey: *Do you know someone who is nonbinary/genderqueer?* The response options were as follows:

- yes, me
- yes, someone I know personally
- not personally, but I am familiar with the concept
- no, and I am not familiar with this concept

If a sufficient number of participants in a given category was reached, new participants who selected that category were not shown the survey. The final quota collapsed the last two categories into one. This is because participants who did not know any nonbinary/genderqueer people behaved similarly with respect to levels of knowledge regarding transgender and GQNB terminology. For example, some people in both categories seemed to misunderstand what *transgender* and *cisgender* meant, suggesting similarly low levels of awareness of transgender issues. Some participants said they knew what nonbinary/genderqueer identities were, but indicated that they had never heard of any gender-neutral pronouns, while some participants who said they didn't know what nonbinary/genderqueer meant said that they were familiar with people using neopronouns for themselves. The final two categories simply did not seem to correspond systematically to a difference in knowledge. The 90-participant dataset thus contained 30 GQNB people, 30 who knew a GQNB person, and 30 who did not know a GQNB person personally.

For the self-paced reading task, participants were given short (50-55 word) paragraphs of edited text from the book *The Mysterious Affair at Styles* by Agatha Christie. This text was chosen as it is in the public domain but colloquial in style and by an author who is still popular with modern readers, indicating a relatively accessible writing style. Taking the paragraphs from a text ensured they sounded natural. The novel also presented participants with a small amount of narrative to prevent them from focusing solely on the pronouns. Participants were asked one multiple-choice question about each paragraph to check that they were paying attention to the content (for example, "Jet found the key: on a walk, at dinner, on a swim."). Each paragraph had at least one instance of subject, object, possessive adjective, and reflexive. Because the independent possessive pronoun is either built on or syncretic with the possessive adjective in all the pronouns under investigation, it was not used in the paragraphs.

Participants were first shown a paragraph with either *he* or *she* in it as a control (selection between the two was random). They were then shown, in random order, paragraphs with four pronoun conditions: singular *they*, animate *it*, a neopronoun, and a nonce pronoun that did not match the rules of English declension. Singular *they* and animate *it* were embedded in two different paragraphs each, and participants were randomly shown one of each.

Neopronouns chosen were *ey/em*, *xe/xem*, and *ze/hir*. The first two were chosen because they were the most popular in the usage survey, and the last was chosen for its frequency in early GQNB writing. A person familiar with neopronouns is reasonably likely to have encountered one of these forms at least once, thanks to this popularity. Each neopronoun was embedded in a different paragraph, and participants were shown one of the three randomly. I omitted nounself pronouns, as it was unclear whether they would function exactly like more abstract neopronouns or not. A more in-depth comparative study on neopronouns specifically would be better-equipped to examine this question.

Finally, the nonce pronouns were lists of five random syllables with no clear declensional structures [80]. There were two sets, and each was embedded in a different paragraph; participants were shown one of the two randomly. The first one was po/na/ki/ep/ud and the second one was kul/beh/ga/ip/vo. These forms share among their declensional forms neither an initial consonant nor a nucleus nor a common syllable structure, making their structure unclear. They also lack the pseudo-endings described in Chapter 4 – for example, the objective -m or -r, and the possessive -s or -r – and they do not use the -self ending that is invariable in English reflexives. These factors combined made them extremely unlike a canonical English third-person pronoun. Their forms were also chosen to avoid similarities with common, existing English words. However, they were kept to a single-syllable structure, in order approximate the typical phonotactics of possible function words.

[80] Another option for a rule-breaking pronoun set would have been to use the elements in the wrong order, for example the objective -m in possessive position. This may have had different results than what was chosen.

Reflexive pronouns were not used for the cloze test because there are alternate reflexives for many of the pronouns under investigation, as discussed in Chapter 4 (for example, *theirself/themself/theirselves* as a singular, *emself/eirself*, *xemself/xyrself*, etc). Therefore, participants were only asked to use the first four forms. However, for the sake of completeness, the sets were presented to participants with all five forms filled in. Each cloze test had five blanks: one instance of each of the four pronoun cases and one duplicate, so that participants could not simply guess the answers based on which form they had not used yet. Between the eight total paragraphs used for the cloze tests, each of the four pronoun cases was repeated twice.

Participants then answered five questions measuring their general attitude to GQNB people. These were concatenated into a general score of familiarity with and sympathy towards GQNB people. They were asked whether they be-

lieved there are two or more than two genders (0 for only two, 1 for more than two), whether they were willing to use new pronouns for people who asked (0 for unwilling, 1 for sometimes willing, 2 for always try, 3 for always use), whether they knew a GQNB person, and whether they knew people who used singular *they*, animate *it*, and neopronons as their pronoun. For familiarity questions, the levels were "I have never heard of this" (0), "I have heard of this but don't know anyone who is/does" (1), "I know someone who is/does" (2), "I am/do" (3). The minimum score was 0, and the maximum was 8; median score was 4. Participants also answered demographic questions about their age, gender, time spent on social media, anonymity of interaction on social media, first language (English or not), whether they were transgender or cisgender, and whether they identified as LGBTQIAP+ or not. Participants' familiarity with each individual pronoun was also coded for in the final dataset (e.g. if they personally knew someone who used singular *they*, they were coded as experienced for that pronoun). Each participant's score in the comprehension section and the writing section were also recorded.

Paragraph-level and word-level structural characteristics were also coded for in the dataset. In the reading section, these characteristics were: mean time reading the paragraph, order in which the paragraph was displayed to the participant, number of characters in the individual word, the individual word's position in the sentence (beginning/middle/end), the individual word's position in the paragraph (a number from 1 onward), total number of pronouns in the paragraph, how many pronouns the participant had seen before in the same paragraph, and score for this paragraph in the comprehension section. In the writing section, characteristics were: time it took to fill in the blanks for each paragraph, time each participant spent studying the pronoun for the paragraph in question, which blank in the paragraph that particular individual word was, the case being filled in (e.g. determiner), the paragraph display number, and the number of clicks the participant took to fill in the paragraph.

Statistical analysis was conducted using mixed modeling regression analysis with the package lme4 in R (Bates et al. 2015). Model tables were created using the sjPlot package (Lüdecke 2018), and figures with ggplot2 (Wickham 2016). Linear regression was used for the processing task, with the dependent variable being reading time. Logistic regression was used for the production task, with the dependent variable being correct/incorrect answers to the task.

Forward-stepping was used to find an initial model for both parts of the task. A variable was included in the final model if 1. an ANOVA showed a statistically significant (<.05) improvement in AiC between that model and the previous model; 2. the marginal/conditional R^2 was raised by including the variable; 3. the AIC was lowered by including the variable; and 4. the variable had at least one statistically significant (<.05) level in the displayed table. After the maximal model was determined, a backwards-stepping analysis using the same checks was conducted to verify that the maximal model was the best one. For both models, participant ID was the random factor.

In both models, the best way of grouping pronouns was into the categories gendered, innovative (singular *they*, animate *it*), neo, and nonce pronouns. The model that used this four-way distinction performed better than models that split *they* and *it* into individual categories, suggesting that innovative *they* and *it* are similar in both production and processing behaviors. This model also performed better than one which concatenated *he/she*, singular *they*, and animate *it* together.

Finally, the models were tested for multicollinearity using the `vif` function in the package `car` (Fox & Weisberg 2011). No factors had scores of >2, and therefore none were considered to be multicollinear. Thus, individual factors in each final model had their own explanatory power.

5.3 Results

5.3.1 Introduction to the Participants

Table 5.1 shows the characteristics of the participants. For space reasons, time spent on social media per week and anonymity in social media are not displayed. The majority of participants spent 1-6 hours per week on social media per week, with the plurality spending 3-4, though 1-2 (20), 3-4 (33), and 5-6 (19) are almost equal. Most participants had both some anonymous and some non-anonymous social media experiences, with only 7 participants saying only anonymous and 6 saying only non-anonymous. Mostly anonymous with some non (21), equal amounts of both (25), and more non-anonymous with some anon (26) were almost equally distributed. These characteristics were not statistically significant in either the writing or the reading sections.

Table 5.1: Participant Characteristics Summary

English L1	yes: 82	no: 8		
LGBTQIAP+	yes: 57	no: 33		
Age	Min: 18	Median: 27	Mean: 29.21	Max: 68
Gender	female: 38	male: 20	GQNB: 30	other: 2
Trans Status	cis: 53	trans: 18	questioning: 10	neither: 9
They Familiarity	I use *they*: 26	I know someone who does: 36	I've heard of this: 23	I've never heard of this: 5
It Familiarity	I use *it*: 2	I know someone who does: 14	I've heard of this: 57	I've never heard of this *it*: 17
Neo Familiarity	I use a neopronoun: 3	I know someone who does: 20	I've heard of this: 51	I've never of this: 16
GQNB Familiarity Score	Min: 0	Median: 4	Mean: 4.01	Max: 8
Gender Views	only two genders: 9	more than two genders: 78	unsure: 3	
Honors Pronoun Requests	Always: 29	Always try to: 55	Sometimes or never try: 6	
GQNB Knowledge	I'm GQNB: 30	I know someone GQNB: 30	I don't know anyone: 30	
Reading Time	Min: 0	Median: 325	Mean: 453.9	Max: 186101
Writing Score	Min: 0	Median: 20	Mean: 18.16	Max: 25
Comprehension Score	Min: 2	Median: 5	Mean: 4.82	Max: 5

Although the average participant was young, this problem was not as marked as was the case in Chapter 3's survey. The median age in the United States of America[81] is 38 years (American Community Survey 2019). The participant median age of 27 is certainly younger than that, but less so than the last survey where the median age was 22. Nevertheless, ages were still not normally distributed; only 12 of the 90 participants were over 40 and only 5 were over 50. This may be part of the reason why age was not statistically significant in either model. Other imbalances include a paucity of non-native English speakers, and a preponderance of LGBTQIAP+ people. Despite that, cisgender and non-cisgender participants were approximately equal in numbers when all non-cisgender participants are considered together.

[81] Although I did not ask for nationality, the majority of participants had IP addresses originating in the United States, and a large minority in the United Kingdom.

Unsurprisingly, more participants went by singular *they* than *it* and neopronouns, and fewer participants were unfamiliar with singular *they*. Only two participants mentioned having heard of neopronouns or with animate *it*, but not singular *they*. This aligns with the findings from the usage survey in 3, and also suggests that cisgender participants are indeed more familiar with genderqueer singular *they* than they are with other options for gender-neutral pronouns.

Six participants gave an 'other' response to the gender question. Two indicated that they were both GQNB and something else; one was a nonbinary trans woman, one was both male and nonbinary. Two said they were agender. One was questioning, and the last one said "I don't understand what it feels like to have a gender identity. So maybe agender, but I don't care much about labelling myself.". Both agender participants and both multigender participants answered "yes, me" to the initial screening question, and thus were counted as GQNB for analysis purposes. The other two were labelled as 'other', which category also contained people who said they were questioning.

Only one participant admitted to not knowing what "cisgender" and "transgender" meant. He[82] was grouped with cisgender participants based on his other responses. Participants who said they were neither transgender nor cisgender were mostly GQNB, but six participants (four women and two men) said they were not GQNB but were also neither transgender nor cisgender. Four of these participants didn't know a GQNB person and had no familiarity with gender-neutral pronouns, and all of them said they were not LGBTQIAP+. Therefore, it is possible that they had misconceptions about the meaning of the words cisgender and transgender. Because they said they were not GQNB, had

[82] Participant gave his gender as male.

a binary gender, and were not LGBTQIAP+, I grouped them with cisgender participants for the purposes of analysis.

Most participants expressed attitudes that were nonhostile to transgender and nonbinary people, even if unfamiliar with them. Only 12 participants did not say there were more than two genders. 56 participants said they would always try to use new pronouns if asked, and 29 said they'd always do it, indicating confidence of success. Only one participant said they would never use new pronouns, and 5 said they would do so only under certain conditions. The conditions for those participants were as follows:

- "I'll almost always try, but feel that *it* pronouns used to refer to a human are demeaning; if that person has alternative pronouns, I'll use those; otherwise, I'll try to avoid pronouns entirely. I have similar but less strong feelings about some neopronouns—I am nonbinary, and find many neopronouns to be intensely othering, and think that they are detrimental to the nonbinary community as a whole, as they position us as inexplicable and alien. I'll try to use them if they're the only pronouns someone's willing to use, but more likely I'll just avoid that person, as we clearly have very different feelings about our own shared identity." (Age 40, GQNB, uses *they/them* pronouns)

- "I could not bring myself to use *it/its* pronouns for someone. I would avoid personal pronouns for this person. Otherwise, I will always try to use someone's pronouns." (age 33, GQNB, uses *they/them* pronouns)

- "I will try to, unless I am in a place where it might be dangerous to say something gender non-conforming that could cause trouble or aggression for me or someone else" (Age 35, gender listed as Other, not personally familiar with any GQNB pronouns)

- "If they explain to me why its important and what it means I will try" (age 27, cisgender woman, totally unfamiliar with any GQNB pronouns)

- "But I will only use pronouns that make sense like *he* or *her*. I can't use 'them' because that is a plural pronoun and makes no sense to my Native English brain."[83] (age 44, cisgender woman, totally unfamiliar with any GQNB pronouns)

[83] Ths is a very typical appeal to grammar, in Hekanaho (2020)'s terms.

Overall, participants skewed younger than the average person, and most likely more queer and trans than the general population. This is not surprising given that the survey design required 30 GQNB participants and 30 people who knew a GQNB person personally, and distributing it through channels that would target those groups meant distributing it in places with high numbers of LGBTIQIAP+ and transgender people. This should, however, be born in mind through the interpretation of the results, as a participant group higher in hostility towards or unfamiliarity with GQNB people might produce different results.

5.3.2 Processing

The linear mixed model used for the reading results is provided in Table 5.2. The dependant variable is reading time in milliseconds.

Table 5.2: Final Regression Model for Reading Section

Predictors	Estimates	CI	St. Error	p
(Intercept)	214.57	129.47–299.68	43.42	<0.001
innovative palaeopronoun	54.56	-56.32–165.45	56.57	0.335
neopronoun	163.84	43.67–284.00	61.31	0.008
nonce pronoun	299.67	183.88–415.46	59.08	<0.001
para.mean	0.43	0.35–0.50	0.038	<0.001
para.num	-37.61	-67.15—8.07	15.07	0.013
Random Effects				
σ^2	681904.11			
$\tau 00 ID$	6816.5			
ICC	0.01			
Other Information				
NID	90			
Observations	2997			
Marginal R2	0.061			
Conditional R2	0.07			

The low marginal/conditional R^2 in this model is most likely the result of the fact that the data are not well-controlled because they were not collected under lab conditions. Participants' interactions with distractions was unknown, thus meaning there may be large variations in time that are unaccounted for by any of the factors coded for in the data.

Factors tested and found not to be statistically significant were participant native language, age, gender, trans status, LGBTQIAP+ status, GQNB familiarity score, time spent on social media, anonymity in social media, individual and overall comprehension score, experience with the pronoun in question, number of pronouns in the paragraph, number of characters in the pronoun, position of the pronoun with respect to previous pronouns, sentence, and paragraph, pronoun case, and survey duration. In this model, factors with a negative estimate correlate to a decrease in mean reading time, and factors with a positive estimate correlate to an increase in mean reading time.

Paragraph position – that is, whether the paragraph was displayed first, second, third, fourth, or fifth – was included in the model because participants generally decreased their reading time as they adjusted to the task. This effect was so marked that gendered pronouns tended to have unexpectedly high reading times because they were presented to participants first. Participants acclimated not just on pronouns but on all words throughout the task, and thus it was important to account for this impact on processing times.

Mean paragraph reading time was included to account for times when participants may have read a paragraph slowly for reasons unrelated to the pronouns within it (e.g. due to temporary distractions). In effect, this served as a way of controlling pronoun reading time for the amount of time the rest of the paragraph took to read. This was not multicollinear with either paragraph position or pronoun, so it was not likely to be caused by either of those factors.

Processing times for innovative paleopronouns *they* and *it* were slightly higher than gendered paleopronouns once paragraph position was accounted for. However, this difference was not statistically significant, as can be seen in the model. The increase between gendered pronouns and neopronouns, however, was significant, as was the increase between gendered pronouns and nonce pronouns. Nonce pronouns, in fact, were almost 300 ms slower on average to read. Given that the median reading time for all pronouns was 317 and the mean was 419, this is a particularly striking, and seems to indicate considerable difficulty in processing nonce pronouns.

There was also much more variability in nonce pronouns. For example, the standard deviation for *they* was 193 MS, and *it* was 263. For gendered pronouns, it was 565 MS (more than innovative neutral pronouns; again, this is likely the result of the fact that participants were still adjusting to the task). For neopro-

nouns it was 707 MS, and for nonce pronouns it was 1559 MS – 1.6 seconds. This variability is the major source of the difference between pronouns. As Figure 5.1 shows, the median values of all pronoun categories are quite close, but the means and spread show more differences.

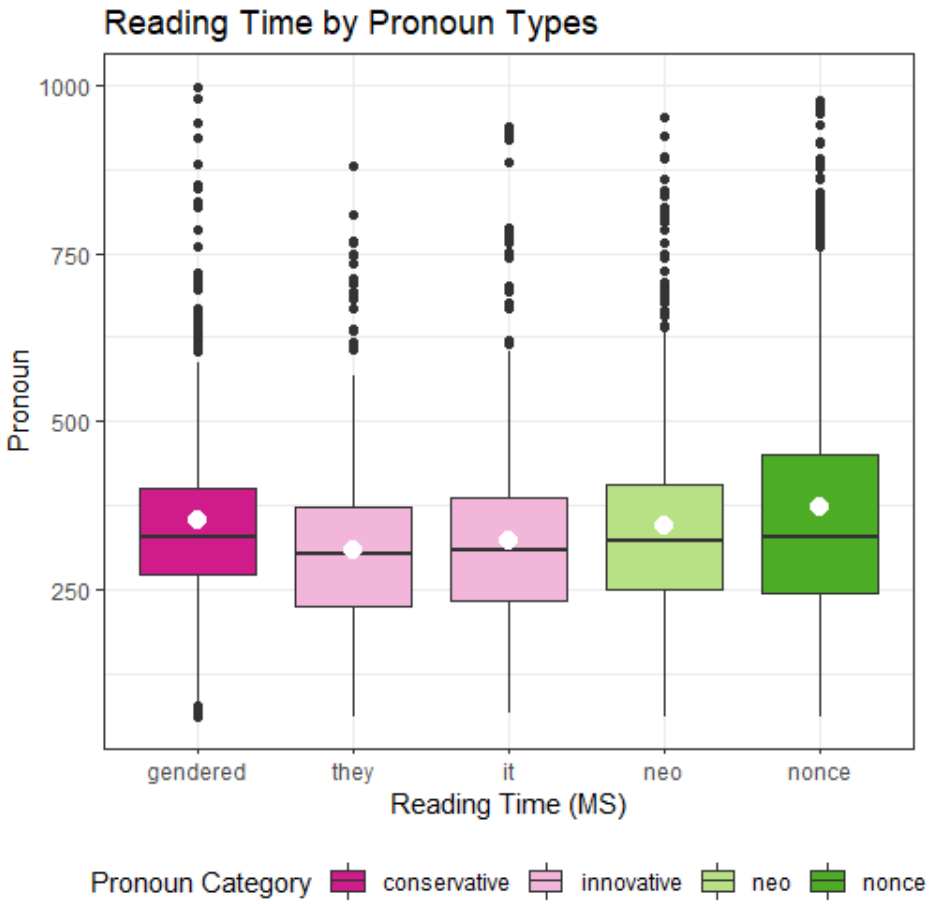

Figure 5.1: Reading Time by Pronoun Category with Mean Dots

This suggests that participants' difficulty with unfamiliar pronouns does not manifest as a smooth overall increase in reading time. Instead, participants paused for longer at certain points to adjust to the new pronouns. This is not directly correlated to the position in paragraph. That is, participants do not always pause longer at earlier pronouns than later ones. For nonce pronouns in particular, they may be pausing at each new case form to try to link it to the ones that have come before, although that is not certain. In some cases these pauses were for a long time. There were 271 outliers (datapoints under 65 MS and over 569 MS) and most were longer, rather than shorter, than the non-outlier data.

Most outliers were either in the gendered pronouns section or in the nonce pronouns set. Since nonce pronouns were not displayed first, these long pauses in that section are most likely to be due to the strangeness of the pronoun sets.

In brief, there was no statistically significant processing cost associated with singular *they* and animate *it* compared to gendered pronouns. There was a processing cost associated with neopronouns. However, it was much smaller than the processing cost associated with the nonce pronoun forms. The difference between the neopronoun forms and the nonce pronoun forms is that the nonce pronoun forms which lack declensional analogy to existing English pronouns and characterizing consonants or vowels between forms. This suggests that those elements reduce the memory burden of processing a new pronoun, making it easier for a speaker to learn. The restrictions on neopronoun forms discussed in Chapter 4 are likely related to this phenomenon. This is similar to the findings of Seyfarth, F. Ackerman & Malouf (2014), which shows that similarity of form helps language users acquire morphological paradigms.

The fact that GQNB familiarity score, exposure to a given pronoun, and other measures of familiarity did not impact processing may be due to several things. First, of course, it may simply be that the hypothesis is incorrect and that exposure to novel pronouns does not make them easier to process in real time. Second, it is possible that this sample was not sufficiently diverse with respect to familiarity. Many participants had at least some familiarity with GQNB people and pronouns. Also, everyone was extremely familiar with the gendered pronouns, and completely unfamiliar with the nonce pronouns, which decreased diversity. As well, there are many neopronouns, and even a participant who is familiar with neopronouns in general may not have experienced extended exposure to this particular pronoun they are reading.

As will be noted in the writing section, however, familiarity measures *did* matter for participants' ability to produce the pronouns. There are two possible explanations for this: 1. writing novel items is more responsive to familiarity than reading novel items; or, 2. the writing section, which was better-controlled and had less variation, was more able to show an effect through the noise. These possibilities will be discussed further in Section 5.4.

5.3.3 Production

For the final writing model, binary-gendered pronouns were dropped from the analysis. The reason for this is that, when writing *she*, answers did not vary at all based in demographic or structural characteristics. That is, all participants tended to perform equally well in conservative uses of pronouns. When asked to fill in a blank such as "Amy lay down on the bed and closed _ eyes" with the she-set, participants almost all correctly replied *her*. In effect, a proper analysis of demographic and structural characteristics required me to look at only the gender-neutral forms because they were the only forms with variation in performance. The dependant variable for this model was correct versus incorrect response (coded as 1 for correct response, 0 for incorrect).

Table 5.3: Final Regression Model for Writing Section

Predictors	Estimates	CI	St. Error	p
(Intercept)	4.04	2.92 – 5.17	0.573	<0.001
neopronoun	-1.82	-2.24 – -1.40	0.213	<0.001
nonce pronoun	-3.83	-4.33 – -3.33	0.255	<0.001
GNP score	0.25	0.04 – 0.46	0.107	0.019
writing time	-0.01	-0.02 – -0.01	0.003	<0.001
study time	0.01	0.00 – 0.02	0.003	0.002
click count	-0.09	-0.16 – -0.01	0.04	0.024
determiner	-0.66	-1.13 – -0.18	0.241	0.007
object	-0.93	-1.40 – -0.45	0.242	<0.001
possessive	-1.47	-1.93 – -1.02	0.234	<0.001
Random Effects				
σ^2	3.29			
$\tau 00 ID$	2.89			
ICC	0.47			
Other Information				
N ID	90			
Observations	1754			
Marginal R2	0.352			
Conditional R2	0.655			

Factors tested and found not to be statistically significant were participant native language, age, gender, trans status, individual items with GNP score, LGBTQIAP+ status, time spent on social media, anonymity in social media, experience with the pronoun in question, and number of the blank within the

paragraph. In this model, where the estimate is negative, answers which fulfilled that condition were less likely to be correct, while answers where the estimate is positive are more likely to be correct.

Writing time, study time, and click count were not found to be multicollinear, as stated above. However, all three are most likely measures of attention and effort. Median click count was 5, mean was 5.637, and standard deviation was 3.99. Median writing time was 294.3 MS, mean was 395, and standard deviation was 382.6. Median study time for pronouns was 882, mean was 197.3, and SD was 340. More time spent writing, and more clicks, generally slightly correlated with decreased performance (perhaps indicating that participants who were uncertain spent more time on writing and clicked more in order to edit). More time studying the pronouns at the beginning meant they did better. This may suggest that participants would not do as well in speech as they might in writing, because speech affords less time for study and reflection and fewer opportunities for self-editing (Olson, Torrance & Hildyard 1985: p. 105). Notably, however, the estimate is extremely small for all three measures, meaning that, while statistically significant, they likely did not contribute heavily to participants' performance.

Participants did the best on subject pronouns. Possessive determiners had considerably fewer numbers of correct answers, object pronouns even fewer, and possessive pronouns even fewer still. Subject pronouns may be easier for participants to remember than other cases, perhaps because they often contained fewer characters, or perhaps because they were often listed first. Givón (2017: p. 7) suggests that subjects are most topical; this may have something to do with participants' behavior.

There is more to unpack with pronoun categories. Participants did so well on gendered pronouns that they were not even included in the final model, as stated above; only 2.45% of responses in this section were incorrect answers. In innovative gender-neutral pronouns, such as singular *they* or animate *it*, they still did very well. 10.57% of *they* responses and 8% of *it* responses were incorrect answers. Participants actually gave more incorrect answers in *they* than in *it*, perhaps because *they* has no syncretism. However, this difference was not statistically significant. A model in which *they* and *it* were considered separately was tested, but they behaved so similarly that it was not used as the final model.

So, *They* and *it* were just as easy to produce as each other, and both were as easy to produce as *she*.

By contrast, in neopronouns, 25.33% of responses were incorrect answers, and in nonce pronouns, 55.28% of responses were incorrect answers, as shown in figure 5.2. In the estimates (shown in the model table), the effect size for nonce pronouns is over half again as large as the one for neopronouns. This suggests that participants found it very challenging to complete the nonce pronoun task compared to the neopronoun task.

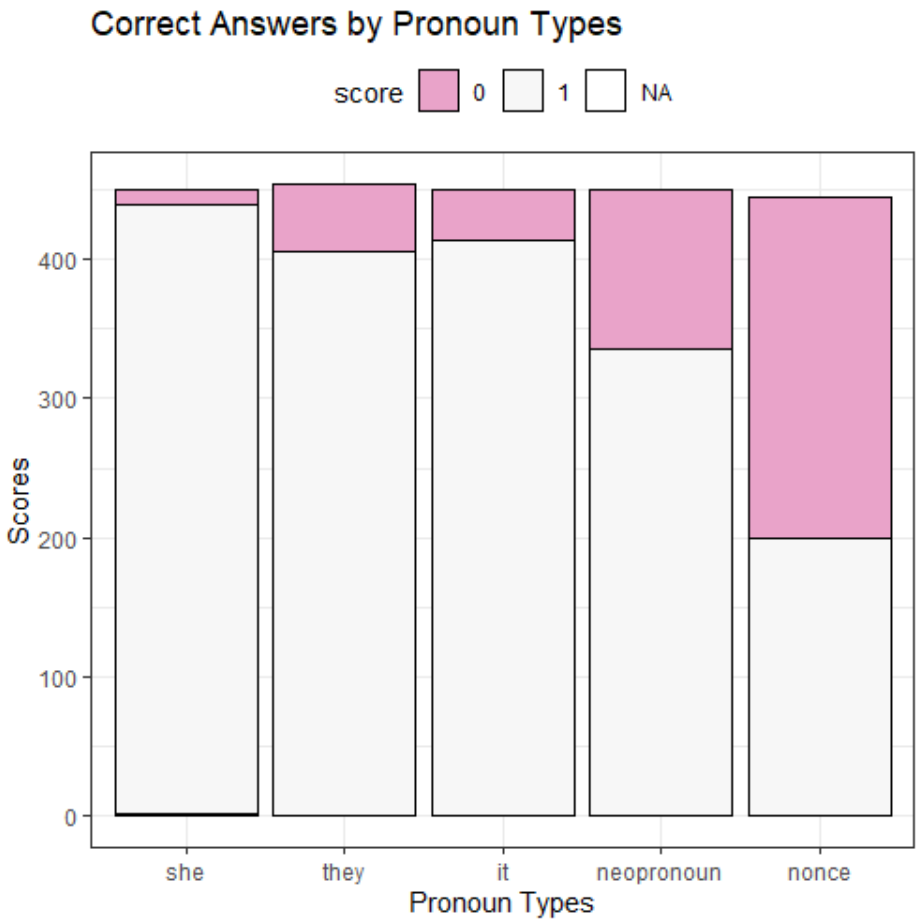

Figure 5.2: Correct Answers in Each Pronoun Category

As this graph shows, participants performed very poorly on nonce pronouns. There were fewer correct answers than incorrect answers. For neopronouns, however, only a quarter of responses were incorrect answers. This supports the hypothesis that the analogical structure of neopronouns scaffolds pronoun learning and again aligns with the results of Seyfarth, F. Ackerman &

Malouf (2014) where participants were more successful at learning paradigms with a regular and predictable structure. F. Ackerman et al. (2009) also shows how analogical structures in natural languages helps scaffold speakers' use of complex paradigms. While learning new pronouns may not always be easy, participants performed better when those pronouns obeyed the kind of typological constraints identified in Chapter 4.

Incorrect answers were not all of the same type. Some participants gave a different pronoun than the one listed, possibly indicating resistance to use of the pronoun listed. For example, one participant gave either *he* or *she* pronouns for every single blank, justifying this with an addition sentence at the end of each final blank stating what gender they perceived the name as (e.g. "Moran is a guy's name"). Other participants attempted to use the pronouns correctly, but made mistakes in grammatical form [84]), or, in the neo and nonce pronouns, in the phonetic forms of the pronouns (for example, using *zir* instead of *hir* for the *ze/hir* set). Some participants did not fully understand the directions and gave items that were not personal pronouns for some of the blanks. Table 5.4 shows the counts of incorrect answer types per pronoun. "Not pronoun" means the participant gave some other type of answer, "left blank" means that they participant either did not respond or gave a don't know response, "wrong pronoun" means the participant did not use the requested pronoun, "wrong case" means the participant used a form from the correct set but not the one that is appropriate for this grammatical situation, and "wrong form" means the participant made a mistake in the form of the pronoun (as with *zir* instead of *hir*).

[84] For disamiguation from the next issue, this is referred to as "case", even though techically many English pronoun forms are not cases.

Table 5.4: Incorrect Answer Types by Pronoun Category

mistake type	she	they	it	neo	nonce
not pronoun	5	4	4	2	5
left blank	1	4	0	5	18
wrong pronoun	0	27	24	13	13
wrong case	5	13	8	68	143
wrong form	0	0	0	26	67

Participants who misunderstood the directions gave non-pronoun forms with approximately the same frequency across all different pronoun categories.

Most participants, though, made more errors in some sections than they did in others.

Case mistakes were by far the most common type of incorrect answer in nonce pronouns, followed by using a form that does not actually exist in the set, referred to here as an "incorrect form". 18 blanks were also left completely unanswered in the nonce pronouns section, including one participant who typed "don't remember" for several blanks and one participant who typed "?". Similarly, neopronoun errors were most frequently case mistakes followed by form mistakes. However, there were fewer of these errors, and far fewer blanks than in nonce pronouns. This again suggests that novel pronouns can be difficult to acquire regardless, but that they are significantly easier with analogical similarities to existing pronouns in place.

On the other hand, using the wrong pronoun happened more frequently in *they* and *it*. This was the most common incorrect answer category in these pronouns. The comparative lack of case errors can be accounted for by the fact that most people who are fluent speakers of English are fairly comfortable using common English pronouns such as *they* and *it*. Those who did make case errors may have been confused by the format of the test, as filling in blanks is not the same as using pronouns in speech. This explanation, however, cannot account for the fact that *they* and *it* had more instances of wrong pronouns ("misgendering" type errors) than either neo or nonce pronouns. There were, in total, 51 blanks filled in using the wrong pronouns for *they* and *it* together, in contrast to 26 blanks total for neo and nonce pronouns together and zero for *she*. This may indicate more ideological resistance to using innovative gender-neutral paleopronouns; it seems unlikely to be a memory issue, since a participant who struggled to remember that a paragraph used *they* rather than *she* would probably also struggle to remember that a paragraph used *xe*. One possible hypothesis is that the familiarity of these pronouns leads the participants to have stronger feelings about the contexts in which they should or should not be applied than novel pronouns. However, I have not found any other literature which demonstrates this specific effect.

Incorrect answer types also varied based on a person's exposure to GQNB people. Table 5.5 shows the percentages of incorrect answer type for each level of familiarity with GQNB people. It should be noted that the general proportions of correct and incorrect answers are accounted for by the inclusive of GQNB

score in the regression model, and this table is not included to claim that familiarity with GQNB people alone was a strong determiner of correct versus incorrect answers. Proportion of correct answers is simply included in the table to give a sense of scale to the incorrect answer type values. The top of the table lists responses to the person's familiarity with GQNB people: whether the respondant is GQNB, someone they know is, or they are not personally familiar with a GQNB person.

Table 5.5: Incorrect Answer Types by Pronoun Category

	is GQNB	knows GQNB person	doesn't know
correct	83.2	81.34	74.8
left blank	1.33	1.88	0.53
not pronoun	0.13	0.54	1.99
wrong case	8.4	10.87	12.33
wrong form	4.4	4.16	3.85
wrong pronoun	2.53	1.21	6.5
total	100	100	100

Wrong pronoun answers were much more common in people who did not know any GQNB people; 6.5% of answers from people who did not know any GQNB people were wrong pronouns, compared to 2.53% for GQNB people and and 1.21% for people with a GQNB person in their social network. The first two categories also contained fewer people who gave responses that were not pronouns, possibly because they were more likely to be familiar with the concept of practicing pronouns. On the other hand, the first two categories were slightly more likely to leave blanks.

As a summary of this section, participants gave minimal incorrect answers on paleopronouns, but a few participants resisted using them in gender-neutral ways, and (figuratively) "misgendered" the paragraph subjects rather than using the pronouns they were instructed to use. They gave more incorrect answers with neopronouns, mainly in case and form, and even more incorrect answers with nonce pronouns, which were so difficult that more incorrect answers were given than correct answers.

The fact that overall GQNB familiarity score was a better predictor of ability to write the neutral pronouns than familiarity with any individual pronoun may suggest that using innovative pronoun forms allows a person to become more

flexible in acquiring new pronouns. It also suggests that attitudinal characteristics play a role in either willingness or ability to learn new pronouns. Attitudinal characteristics and sociocultural beliefs have been argued to be relevant to acquisition in, for example, Clément, R. C. Gardner & Smythe (1977) and Basista & Hill (2010) (though see R. Gardner (1980) for a contrasting viewpoint). In the context of acquisition, GQNB familiarity could be considered to provide *motivation* to learn pronouns.

A correlation test using Kendall's Rank Tau (p>.001, tau=0.21) between participants' overall writing score and their GQNB familiarity score again reinforced this. As 5.3 shows, the relationship is not linear, but participants with more GQNB sympathy and familiarity did tend to have overall higher scores in the writing section.

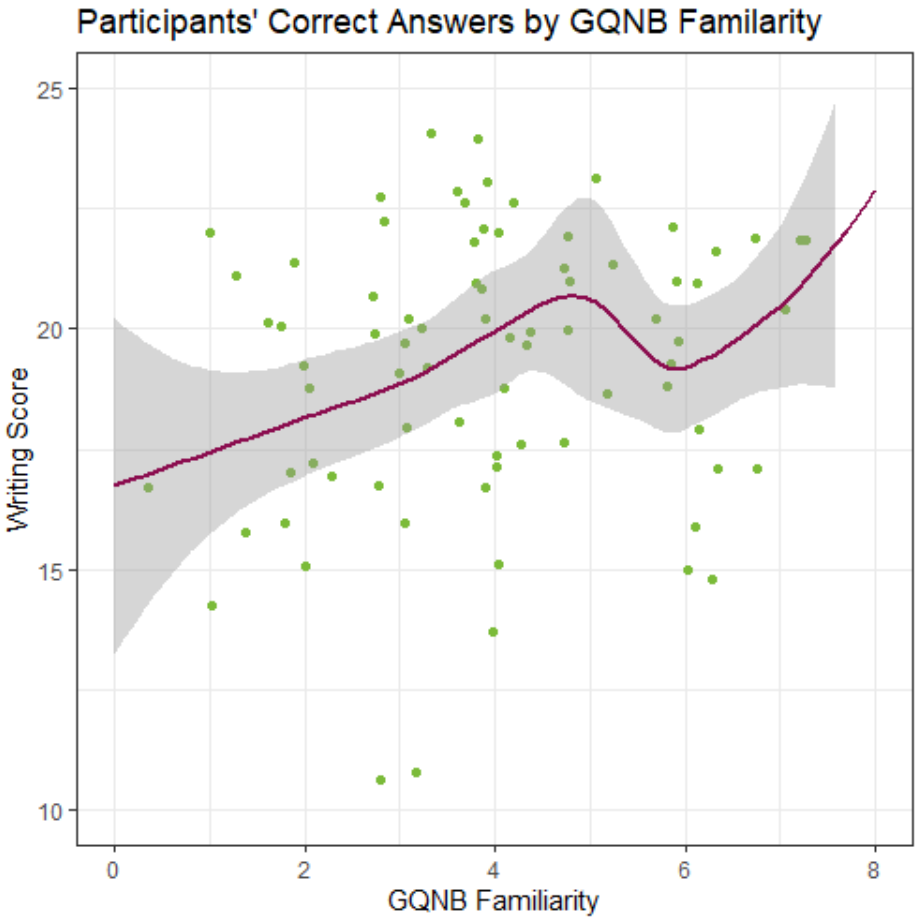

Figure 5.3: Participants' Numbers of Correct Answers by GQNB Familiarity Score

Exposure to GQNB people and their pronouns, therefore, can increase a participant's ability to produce novel pronouns. However, it is the overall exposure to new and innovative uses of pronouns and to GQNB genders that matters more than the individual exposure to a particular pronoun. This may indicate that participants learn to spot patterns in pronouns, or that their mental category of pronouns becomes more plastic. In Dimitriadis, Boll-Avetisyan & Fritzsche (2017), participants' ability to learn novel fusional (but not agglutinating) morphology was influenced by their ability to speak a fusional language. Thus, exposure to a similar system may be able to help acquire a system.

5.4 Conclusion

There was very little processing or production difficulty with the paleopronouns in general aside from deliberate resistance in writing to neutral pronouns. This is as expected for the writing task, but unexpected for the reading task, because generic singular *they* has previously been found to have a processing cost with referential antecedents (Foertsch & Gernsbacher 1997) (Prasad & Morris 2020) [85] (P. Chen et al. 2021). However, none of these studies compared singular *they* to neopronouns or nonce pronouns, so it is possible that the scale of processing cost incurred by the latter items dwarfs the processing cost of the innovative paleopronouns. It is also possible that the lack of indefinite pronouns in this study contributed to the effect. Alternately, it may be that a self-paced reading task conducted from the participant's home was not sensitive enough to pick up the processing cost of neutral paleopronouns.

[85] This study focused on the explicitly-plural reflexive *themselves* while the reflexive in the current study was the explicitly-singular *themself*.

It is worth highlighting, however, that participants as a whole did not struggle to produce or process singular *they* any more than they struggled to produce or process *she*. The claims that *they* is simply harder than gendered pronouns due to the plurality conflict is not borne out in this study.

Animate *it* was also not measurably more difficult in the task compared to gendered pronouns than singular *they* in either production or processing. This is in direct contrast to the initial hypothesis of the study. Evidently, fact that *it* is used in nonreferential contexts as well was not sufficient to confuse participants. The explanation for why it is infrequently used for GQNB people, therefore, cannot rely solely, if at all, on grammatical factors. An explanation for the relatively low use of *it* as a personal pronoun instead may be due social fac-

tors. *It*'s associations with animals and things in English means that it is highly stigmatized (M. Y. Chen 2021). Some resources for the respectful treatment of transgender people, such as University of Wisconsin Milwaukee's Gender Pronouns page, list it as a slur. And indeed, many participants in Chapter 3's usage survey who used *it* used it with awareness of this stigmatization, as a means of reclaiming a more positive meaning. It is likely, therefore, that numbers of it-users are low because of these negative associations.

There was a clear pattern in both the reading and writing task that neopronouns are more difficult than paleopronouns. However, they were considerable easier than the nonce pronouns. Thus, it seems likely that new pronouns are easier to learn if they closely resemble existing pronouns. One could analyze the creation of these new pronouns as simply an extension of existing "rules"; learning to use them would thus simply involve memorizing a limited set of new forms drawn from a finite number of possibilities. A future study comparing specific neopronoun forms, and including nounself pronouns (which might behave quite differently with respect to processing), would illuminate the relationships between these forms more clearly.

Experience with pronoun forms was not significant in either dataset. This is in contrast to the hypothesis: that naive participants would struggle more with an innovative pronoun than non-naive participants. There are several things to discuss here. Naive participants, in contrast to the hypothesis, saw no costs associated with animate *it* and singular *they*. Rather than acclimating to it over time, they, like non-naive participants, did as well with it as they did with gendered palaeopronouns. Secondly, participants who had experience with neopronouns in general may not have had experience with the specific neopronoun they were shown. Repeated exposure to a specific neopronoun, rather than neopronouns in general, may be required. It may be the case that participants *are* able to perform better with pronouns through repeated exposure, but that the methods used in this study were not fine-grained or long-lasting enough to capture it. Studies showing acquisition of new or nonce forms through exposure like Tyler & Nagy (1987), Annie Tremblay (2011), and Reynolds (2016) have participants exposed to the new form by the researcher rather than asking about their history. A study of this kind might be able to offer more information about the role of exposure in processing innovative novel pronouns.

Experience with GQNB people was significant in the writing dataset only. If this latter fact was solely a result of a lack of demographic diversity in the sample, one would expect that the issue would show up in both models. This could be due to the comparative noisiness of the reading data. Or it could be that processing times, being less conscious, are less responsive to effort. The writing task allowed participants to go back and edit their responses, or take time to think about what response they would give. The reading task, on the other hand, only measured on-line processing. GQNB familiarity score may be most accurate as a measure of participant willingness to pay attention to people's pronouns, rather than ease of acquisition of people's pronouns. This result is interesting in the light of P. Chen et al. (2021), which found that offline acceptability judgements of singular *they* did not correlate with online processing.

An additional issue is that participants had no access to visual cues about the imaginary people they were using pronouns for in this task. It remains to be seen how the results would change if participants were attempting to apply these pronouns to real-world people, for whom they would have acess to the "signals" typically used to assign gendered pronouns to interlocuters.

The GQNB preference for *they* in English is expected in light of its comparative ease of processing. Likewise, the fact that neopronouns tend to closely follow existing pronoun sets makes sense given that pronouns which do not are evidently very difficult to use. In Chapter 6, the information from all three analyses – Chapters 3, 4, and 5 – will be synthesized to discuss what these pronouns can teach us about language change.

Chapter 6

Conclusion

> Here we are in all our glory - male, female, intersex, trans, butch, nellie, studly, femme, king, androgynous, queen, some of us carving out new ways of being women, others of us new ways of being men, and still others new ways of being something else entirely. You don't have pronouns yet for us.
>
> Eli Clare, 1999
> *Exile and Pride: Disability, Queerness, and Liberation*

6.1 Summary

In this section, I will briefly revisit the research questions and summarize what I have accomplished in attempting to answer them, along with issues I have encountered and limitations of the study. In Section 6.2, I will discuss how those answers link to broader processes of language variation and change. In Section 6.3, I will discuss their relationship to the contention that gender-neutral pronouns are "unnatural". Finally, Section 6.4 will talk about gender-neutral pronouns as a personal, interactional, and political issue.

The fundamental research question for this dissertation was: Do gender-neutral pronouns follow naturalistic processes of language use and language

change? To paraphrase the hostile participant from Chapter 3: *does* language work that way?

This has several sub-questions: can people learn to use gender-neutral pronouns if they have not begun using them until adulthood? Have they changed over time in response to practical pressures, as language tends to do?

Regarding "use", I also asked the questions: How do GQNB people experience their own pronoun use? And how do users of English experience gender-neutral pronoun use as a linguistic process? In other words, what are the emic and etic experiences of these pronouns?

In Chapter 5, I showed that participants are indeed able to use English GQNB gender-neutral pronouns, even though many of the participants could not have been exposed to these pronouns in childhood. In the case of existing pronouns being used in new ways, such as *they* and *it*, this seems to be low in cost on both a processing and production level for most participants. Neopronouns incur more cost, but participants were still able to use them. The contention that singular *they* in particular is unnatural or ungrammatical is not seen in the results of this task. However, the role of perceived gender in real humans is more complex than imaginary, faceless characters. An interesting future study would investigate how a person's gender presentation and physical characteristics impact this process.

In chapters 2, 3 4 I showed that English gender-neutral pronouns are indeed subject to the same kind of lexical pressures as other categories. The various gender-neutral pronoun options begin in competition, but *they* gradually emerges as easily the most popular option through a change from below. As is often the case with competing lexical items, the other pronouns have specialized. In coining neopronoun forms, most people obeyed pressures to make the forms as similar to other third-person pronouns as possible. In choosing pronouns to go by, GQNB people pay great attention to pragmatic pressures that are similar to the kind of pressures seen in T/V pronoun negotiation.

All in all, the trans-antagonistic contention that gender-neutral pronouns are an unnatural imposition on the English language does not align with the fact that gender-neutral pronouns behave much in the same way that one would expect a new morpholexical item to do. In other words, language *does* work that way.

There is is one specific community of GQNB people that are exceptionally innovative with their pronoun use, beyond what would be expected for pronoun change. This group of mostly young individuals gather on social media platforms such as Tumblr and coin new pronouns very prolifically, expressing many facets of their identity, not just gender, through their pronouns. The majority of nounself pronouns are used within this community, rather than by the GQNB community as a whole. Future research on neopronouns should note that the community of people who go by gender-neutral pronouns and what I call the community of pronoun play, while related, are not in complete overlap.

Although the research in this dissertation has suggested that people can indeed begin to use gender-neutral pronouns as adults, the bigger picture on what this looks like has not been fully clarified. The experimental task on processing pronouns did not speak to the role of experience in faster processing as much as was hoped for. A future study that examines this question in more detail would be useful. The processing data could also be strengthened in a future study by conducting it again under laboratory conditions.

I am limited also by both my focus on English and my focus on pronouns as opposed to other forms of gender-neutral language. In the Anglosphere, the concept of "pronouns" is nearly synonymous with trans topics, but in many other languages, gendered morphology has other, more complex manifestations that are harder to neutralize (see for example Kosnick (2019), Papadopoulos (2019), Van Den Heuvel (2013), Jacobs (2004), and Josephson & Einarsdóttir (2016) among others. This discussion is ongoing, and future research on linguistic expression of gender diversity should take this into account. Additionally, many languages have much less diversity of coined neutral forms than English, so more information on how users navigate these languages would be useful.

A significant unanticipated technical limitation was the difficulty of weeding out bot participants from real ones. More careful screening procedures (particularly at the beginning of the study) would have ensured less wasted time and fewer ambiguous participants. Another unanticipated issue was participants' comparative lack of ability to describe their familiarity with GQNB topics objectively. Those who were not familiar were, unsurprisingly in retrospect, poor judges of their own knowledge. A more thorough pre-screening questionnaire presented to participants would help with both the bot problem and this issue.

This dissertation did not attempt to answer the question of how reading/writing in these pronouns compares to the ability to use them in speech or process them in speech. Pronoun talk is conducted more online, and the GQNB community has organized more online; this means that, to some degree, the natural home of genderqueer neutral pronouns is in text. But as more GQNB people come out, more pronoun talk is likely to happen face-to-face. Understanding the dynamics of this process in speech will be an important future frontier. Given, for example, differences in style and register between spoken and written modalities in similar contexts demonstrated in articles such as Redeker (1984), Vagle (1991), and Pérez-Sabater et al. (2008), it is possible that spoken versus written pronoun talk may look different.

A number of interesting open questions remain with neopronouns as well. For example, does borrowing morphology from gendered pronouns give supposedly gender-neutral pronouns a link to gender? For example, is the fae/faer/faer set more "feminine" and the ne/nim/nis set more "masculine"? Participants in the usage survey often mentioned choosing a neopronoun because it seemed feminine or masculine without being strictly associated with men or women[86], but these examples were too anecdotal to properly analyze. A study testing the gender intuitions of both nonbinary and cisgender speakers would be useful in this respect.

[86] Examining how this sense that some linguistic items can "feel" feminine or masculine without any kind of direct link to gender would be of great interest for a future study.

Then, too, there is the question of nounself pronouns versus abstract neopronouns. Are nounself pronouns more difficult to parse and use? What semantic qualities make a good nounself pronoun, since they seem to be more heavily aesthetic and more heavily personal than abstract neopronouns? Much more analysis could be done on nounself pronouns alone than there was room for in this dissertation. This is especially so because nounself pronouns are still quite underexplored compared to general genderqueer pronouns, and have only been dealt with in specifics by Miltersen (e.g. Miltersen (2016)).

Although no sound symbolism was found for neopronouns in this study, that does not necessarily mean that it would be impossible to find any. Particularly, a crosslinguistic analysis that took a sound symbolism approach to the neopronoun would be useful, similar to Kawahara, Noto & Kumagai (2018) and attendant work on Pokemon sound symbolism. Although crosslinguistic work was done in this dissertation, it was not extensive enough to conduct a deep sound-symbolism analysis. But like Pokemon names, gender-neutral pro-

nouns are being coined for similar purposes across multiple languages, so this is an opportunity to compare and contrast.

6.2 Gender-Neutral Pronouns as Language Change

6.2.1 Lifespan Change

The GQNB community (as distinct from other communities centered around gender diversity) only arose around 30 years ago, in the 1990s. At this point, neopronouns as genderqueer signifiers were in their infancy. A larger, more national and international conversation about GQNB identities only began around 10-15 years ago, in the late 00s and early 10s. Furthermore, most of the dissemination of GQNB identities has happened on the internet, particularly on forums and social media. Most of the GQNB and cisgender people surveyed, therefore, were likely to have been exposed to the forms no earlier than their teens.

Any change happening to singular *they*, or towards integrating neopronouns into English, is very unlikely to be a product of acquisition, or even to happen in childhood. Yet the evidence seems to suggest that people are able to adopt at least some of these forms. Although this dissertation did not fully establish the role of exposure, the results of the experiment and others (such as L. Ackerman (2019a)) hint that more exposure to a gender-neutral form makes it easier to use. This is particularly noteworthy in that the change is happening in pronouns, which in English are a functional (rather than lexical) item and are a central (rather than peripheral) part of many sentence structures.

This provides further support for the theory that a speaker's grammar can change throughout their lifetime and even that adults can drive language change (c.f. Joan L. Bybee & Slobin (1982), Anthonissen & Petré (2019) and Raumolin-Brunberg (2005)). The fact that the change is happening in pronouns again reinforces the idea that lifespan change does not just happen in, for example, vocabulary choices.

6.2.2 Typologies

Although gender-neutral pronouns in English and other languages that traditionally use gendered pronouns are a relatively new area of study, we can understand them in the context of pronoun change typology following Heine & Song (2011) and Heine & Song (2010).

The transition of *they* from a plural form only to something that can be either singular or plural is common in pronouns (Heine & Song 2011: p. 609). While this process is more common in the second person, this means that *they*'s transition to a singular is by no means unprecedented – even in English. Considering the emergence of *you* as the sole form of the second-person pronoun, both singular and plural, it is perhaps unsurprising that singular *they* has come about. While the animizing of *it* has no direct description, both *they* and *it* are expansions of the semantic domain of an existing pronoun.

Neopronouns create new pronouns under the paradigms of existing ones, essentially expanding those paradigms. This was true not only in the English neopronouns, which were studied in detail, but also seemingly of many of the other languages' forms (for example, the Swedish *hen*). Some of these are derived from nominal concepts, especially nounself pronouns. Derivation of pronouns from nominal concepts is certainly not unknown in the history of language, as shown by the diachronic analysis of Japanese pronouns (Ishiyama 2019: p. 10), by the grammaticalization of *a gente* in Brazilian Portuguese (Zilles 2005), and by the French and German adoption of a noun meaning 'man' into a second person pronoun (Helmbrecht 2015). Nounself pronouns are, however, unusual in their breadth and personalization. Many other neopronouns are abstract and do not fit into Heine and Song's categories. I would suggest that these neopronouns should be described as expanding the paradigm of an existing pronoun.

The typology of gender-neutral pronouns can thus be broken down into three types. All of them follow one of the following paths:

- a) expand the semantic domain of an existing form
- b) expand the paradigm of an existing form
- c) derive a pronoun from a non-pronominal item

This applies to more than just English (though it should be noted that most instances of type c) in English also are instances of type b)). For instance, in Danish there is competition between *hen*, a type b), and *de*, a type a). And the Vietnamese coined neutral pronoun meaning *lemon* shows type c). This is limited to pronoun typologies; other types of gender-neutral language, such as verbal inflection or nominal declensions, might follow other paths.

Within the community of English neopronoun users especially, there is no one single favored neopronoun, and it is generally considered acceptable to coin new pronouns for aesthetic value. This suggests that these speakers may be becoming more comfortable with new pronouns entering their vocabulary. If this change generalized, one might expect to see a change to the grammar of English such that its pronoun category was more flexible and permeable, as it is in Japanese or Vietnamese. But that is by no means guaranteed. It remains to be seen how well members of this community use the forms in speech rather than writing, and for how long this cognitive flexibility lingers if and when they stop being active members of this community. It may be notable that much of this community is comparatively young, even more so than the GQNB community as a whole.

6.3 The Naturalness Argument

As discussed in the introduction, a major stigma against gender-neutral pronouns has been the unnaturalness argument, the idea that gender-neutral additions to English or other languages are an unnatural imposition. An innovative, socially-driven form in a closed class of items is bound to encounter some kind of resistance, not least because of the association between the form itself and the political cause that is driving it. This is the attitude that Hekanaho (2020) records as appearing against many gender-neutral forms, whether *they* or neopronouns. Gender-neutral pronouns, especially for GQNB people, are seen as made-up, forced on the language, and unable to conform to the rules of English, much as GQNB people in particular and transgender people in general are seen as deviant and false.

If it's true that gender-neutral pronouns *are* unnatural, one would not expect to see them undergoing the same kind of pressures that other lexical and morphological items undergo, because they should not be cognitively well-

integrated enough into speakers' grammar. But, in fact, gender-neutral pronouns have undergone competition and specialization much as other items do (Rainer et al. 2019). In particular, singular *they* has become the most generalized form, while neopronouns and animate *it* serve specific identity functions beyond gender.

This change of function in response to an excess of forms is somewhat similar to the history of Chinese pronouns as analyzed by Lai & Frajzyngier (2009). Classical Chinese had four first-person pronouns and a zero pronoun, while Mandarin retains only one and a zero pronoun in standard speech. One of the four that is not otherwise in use is used in artist's speech, having narrowed its domains and specialized. In a similar vein, the extreme diversity and lack of consensus of forms in the GQNB community in the 00s to the mid 10s has given way to one major form, with other forms specializing for specific uses.

The rise of singular *they* over neopronouns in genderqueer use has gone virtually unremarked-upon, even within GQNB studies. Although many scholars of GQNB issues have noted the preference for *they* over neopronouns, they have tended to assume that this state of affairs has been continuous from the genesis of the community. In fact, that is not the case. Singular *they* is not attested until a decade after the GQNB community began to form. Before that, neopronouns were the only neutral definite pronoun option in use, and they continued to compete, as mentioned before, for some time.

It is certainly not the case that *they* is the most common option because it was the first option; neopronouns predated it. It may have reached prominence because it's so similar to internet-anonymous *they*. But this state of affairs is not inevitable. In Swedish, *hen*, a neopronoun, still seems to be more popular than singularizing the plural *de* (Gustafsson Sendén, Bäck & Lindqvist 2015). What is notable is that both forms, *they* and *hen*, saw a significant degree of actual use as a generic before being taken up as the major genderqueer pronoun.

When, precisely, did the change in English from neopronouns to singular *they* happen? And what precipitated it? We simply do not know. Although the blog They Is My Pronoun was created in 2012 to advocate for genderqueer singular *they*, this seems to have been in response to, and not the cause of, an uptake in genderqueer singular they. Aside from the fact that even a very successful blog is unlikely to have a major impact on the speech of an entire population,

the blog itself was formed because "they is gaining ground and acceptance as the most popular and recognizable gender-neutral pronoun".

Even within the community itself, this change was largely taken for granted, with only an observant few (such as the TIMP blogrunner) even remarking on it – a true change from below (Labov 1965). It was unconscious on the part of speakers and seemingly not in response to prescriptivism, as both singular *they* and neopronouns have seen prescriptive disapproval. Genderqueer pronouns should be understood as part of the speech of a community of practice, rather than a prescriptive change-from-above. A better understanding of the history of this community of practice is necessary to truly understand genderqueer pronouns. In particular, an archival study tracing the history of genderqueer rather than generic singular *they* would be of great value.

How, then, can we see gender-neutral pronouns? It would perhaps be most accurate to view them as a specific linguistic item of a community of practice. Many communities of practice have particular linguistic habits that characterize them (Del Tredici & Fernández 2018) (Turner 2015) (Woolhiser 2007). In the same way, the norms of the transgender community – such as prioritizing an individual's wishes in referring to them, and using gendered pronouns in ways that align with complex social meanings rather than birth assignment – have led to an environment in which gender-neutral pronouns have flourished. They are not a prescriptively-driven intentional language change. Rather, they arise because the community of practice they are from experienced a lexical gap.

6.4 Final Remarks

Perhaps the most surprising things to come out of this dissertation are firstly that singular definite *they* does not seem to incur a production or processing cost, and that its textual history is so poorly documented. When did indefinite singular *they* become capable of being used definitely? When did GQNB people take up this from? And, if it is true that its processing cost is low, what is the root of the resistence to it? These questions remain to be answered.

An experience repeated throughout this dissertation was that participants, both mine and others', would like to go by gender-neutral pronouns but didn't feel able to. The reasons for this were myriad, but often boiled down to two factors: a lack of safety or a lack of awareness. Although the two sometimes

went hand-in-hand, they were by no means identical. A person could be aware of gender-neutral pronouns but hostile towards the concept, or ignorant of the concepts without malice. Either way, the burden was on the GQNB people in the situation to explain, which often required energy they simply did not have.

The most common response to this has been to increase the pronoun talk norm. This is effective in some situations; for example, if a person feels safe generally, being asked their pronouns along with everyone else in a group gives them an unobtrusive way to make their pronouns known. However, cisgender organizers should bear in mind that not all transgender people feel safe stating their pronouns in every situation. Making pronoun talk optional and private is useful in situations that aren't explicitly for and about transgender issues.

But interpersonal pronoun talk is not the only issue. A lack of awareness about gender-neutral pronoun options, and a strong stigma against many of them, still exists. Until ignorance and stigma have been dismantled, gender-neutral pronouns will remain an ideal that not everyone can request.

This is not just a GQNB issue: transgender people who do not "read" as their gender to cisgender people, equally, experience stigma against using the pronouns they are most comfortable with. It is often said that the problem with gender-neutral pronouns is that they are ungrammatical on a syntactic level. But if that were the true single issue, binary transgender people would never be misgendered. A broader question which I have not addressed at all in this dissertation relates to how people link social and linguistic cues about gender. Are gender-neutral pronouns "difficult" because they are syntactically disruptive, or because they are socially disruptive?

The issue, then, is not only to destigmatize neutral pronouns specifically, but to acknowledge the arbitrary, malleable, and social nature of gendered pronouns. Gendered pronouns reference *ideas* about gender, ideas that many gender-diverse people leverage in multitudinous and divergent ways.

Attitude matters. Although we may not be fully in control of our grammars, practice and an open mind can increase a person's ability to learn a new form. Gender-neutral pronouns should not be met with cries of "But it's ungrammatical!", least of all by linguists. Instead, we should focus on developing resources that make it easier for people to discuss and use gender-neutral pronouns. There is no way out but through.

Appendix A

Usage Survey Text

Start of Block: Screening

Q1.1 UNIVERSITY OF GEORGIA CONSENT FORM Non-binary Pronouns Survey You are being asked to take part in a research study. The information in this form will help you decide if you want to be in the study. Please ask the researcher(s) below if there is anything that is not clear or if you need more information. Principal Investigator: Dr. Chad Howe University of Georgia Linguistics chowe@uga.eduCo-investigator:Kit Callaway University of Georgia Linguistics Kec47019@uga.edu The purpose of the study is to learn more about how your experience of pronouns in English and other languages relates to your gender. You are being asked to be in the study because you are a person at least 18 years old whose experience of gender is partially or fully outside the gender binary. Participation in this research is completely voluntary and you can refuse to participate before the study begins or stop taking part at any point. By participating in this survey, you are granting the investigators permission to use the data you provide for the sole purpose of this research project. If you decide to participate in this study we will ask a series of questions dealing with the following topics: your demographic information, what your pronouns are, how you chose your pronouns, where you use your pronouns, how and when you tell people your pronouns, and how and when you correct people when they use the wrong pronouns. We estimate that it will take roughly 15 minutes to complete the survey. We do not expect that filling out this questionnaire will create any risks or discomforts on your part. We hope that learning more about the pronoun experiences of people whose experience of gender is not fully binary will help others by recording and documenting pronoun usage as

non-binary gender experiences become more visible. Pursuant to the European General Data Protection Regulation (GDPR) UGA, acting in its capacity as a data controller under the GDPR with respect to the information gathered from you the data subject, must obtain your explicit, affirmative consent before it can collect or process your data for this project. Some of the information you provide may be considered sensitive personal data under the GDPR. Sensitive personal data includes racial or ethnic origin; political opinions; religious or philosophical beliefs; trade union membership; genetic, biometric data; health data; or data concerning a person's sex life or sexual orientation. Any data, including sensitive personal data, that is collected from you will be for the sole purpose of participating in the research study entitled "Non-binary Pronouns Survey" referenced above and is necessary for the completion of the study. This may include processing the data as required to comply with applicable laws. The University has an EU GDPR Compliance Policy which includes your individual rights concerning your data. Please see the EU GDPR Compliance Policy (https://eits.uga.edu/access _and _security/infosec/pols _regs/policies/eu _gdpr/). UGA is committed to ensuring the security of your information. We have put in place physical, technical, and administrative safeguards designed to prevent unauthorized access to your information. Your data will be held under security standards for sensitive devices outlined in the UGA Policy Minimum Security Standards for Sensitive Devices (https://eits.uga.edu/access _and _security/infosec/pols _regs/policies/minsec _sensitive/). Data will be handled and processed only by the persons who are responsible for the necessary activities for the purposes above. The information you provide will not be associated with any identifier. The data will be stored for a period of 5 years. No automated decision making will be performed, including profiling, and the collected Data will not be further processed other than the purpose for which it was collected. This research involves the transmission of data over the Internet. Every reasonable effort has been taken to ensure the effective use of available technology; however, confidentiality during online communication cannot be guaranteed. If you have any further questions about the research project, or or wish to have your survey information removed from the respondents, please contact Kit Callaway (kec47019 at uga.edu); Phone: 1 706-542-5099. Any question(s) or concern(s) about your rights as a research participant should be directed to The

Chairperson, University of Georgia Institutional Review Board, 706 542-3199, irb at uga.edu. -I consent

Q1.2 Are you a person 18 years or older who has an experience of gender that is partly or wholly outside of the gender binary? -Yes -No

End of Block: Screening

Start of Block: Demographics

Q2.1 How old are you?

Q2.2 For about how many years have you considered your gender partially or fully outside the binary?

Or, if it's less than a year, how many months?

Q2.3 What is your gender?

- Nonbinary
- Genderqueer
- Agender
- Genderless
- Neutral
- Bigender
- Genderfluid
- Genderflux
- Androgyne
- Transmasculine
- Transfeminine
- Demiboy
- Demigirl
- Man
- Woman
- An option not listed here (please specify)

Q2.4 What country do you live in? Afghanistan ... Zimbabwe

Q2.5 Are you a native speaker of English?

- Yes
- No

End of Block: Demographics

Start of Block: Your Pronouns

Q3.1 In an ideal world, what pronouns would people use for you when speaking English? (If your ideal situation involves multiple pronouns, please select all pronouns that apply.

- He/Him/His/Himself
- She/Her/Hers/Herself
- They/Them/Their/Theirs/Themself or Theirself
- It/Its/Itself
- Ze/Hir/Hirs/Hirself
- Ey or E/Em/Eir/Eirs/Emself or Eirself
- Fae/Faer/Faers/Faerself
- Xe/Xem/Xir/Xirs/Xem or Xirself
- A set not listed here (please specify)
- No preference/any pronouns/all pronouns
- No pronouns
- I am still unsure of my preference

Q3.2 When speaking English, do you have any alternate, secondary, auxiliary, or backup pronouns that you use in addition to or instead of your ideal ones? If yes, please select all that apply.

- I do not have alternate pronouns
- He/Him/His/Himself

- She/Her/Hers/Herself
- They/Them/Their/Theirs/Themself or Theirself
- It/Its/Itself
- Ze/Hir/Hirs/Hirself
- Ey or E/Em/Eir/Eirs/Emself or Eirself
- Fae/Faer/Faers/Faerself
- Xe/Xem/Xir/Xirs/Xem or Xirself
- A set not listed here (please specify)
- I am still unsure of my preference

Q3.3 Do you regularly speak a language or languages with gendered pronouns other than English?

- Yes (please specify language/s)
- No

Q3.4 What pronouns, if any, do you prefer to have used for you in the other language/s you speak?

Q3.5 If you speak a language with gender in areas other than pronouns, please tell me about the strategies you use to navigate gender in those areas. (For example: if your language has gendered verb endings, what verb endings do you prefer?)

End of Block: Your Pronouns

Start of Block: Changing Pronouns

Q4.1 What pronoun set/s have you used or considered using in the past, but don't use anymore?

(This would not describe sets that you still use sometimes or in some settings; only sets that you have stopped using.)

- None
- He/Him/His/Himself

- She/Her/Hers/Herself
- They/Them/Their/Theirs/Themself or Theirself
- It/Its/Itself
- Ze/Hir/Hirs/Hirself
- Ey or E/Em/Eir/Eirs/Emself or Eirself
- Fae/Faer/Faers/Faerself
- Xe/Xem/Xir/Xirs/Xem or Xirself
- An English set not listed here (please specify)
- A non-English set not listed here (please specify)

Q4.2 How many times have you chosen new pronouns since you realized your experience of gender was not binary?

This may include adding pronoun sets to your pool of ideal pronouns, or switching over to a new pronoun. It does not switching between pronoun sets that you already use due to gender fluctuations.

- I have never chosen new pronouns.
- I have only chosen new pronouns once.
- I have chosen new pronouns two or three times.
- I have chosen new pronouns four or more times.
- Other

Q4.3 Do you see yourself choosing new pronouns in the future?

- Yes
- Maybe
- No

End of Block: Changing Pronouns

Start of Block: Choosing Pronouns

Q5.1 Think about the process of choosing your ideal pronouns. How important were each of these factors in your choice of ideal pronouns? Most important Very important Somewhat important Slightly important Not important

- This pronoun set is easy for me to use. - - - - -
- This pronoun set is easy for others to use. - - - - -
- This pronoun set doesn't draw a lot of attention. - - - - -
- This pronoun set is unusual or unique. - - - - -
- This pronoun set expresses something about my gender. - - - - -
- This pronoun set expresses something else about my identity. - - - - -
- This pronoun set sounds aesthetically pleasing. - - - - -
- This pronoun set sounds like me. - - - - -

Q5.2 Think about the process of choosing your alternate pronouns. How important were each of these factors in your choice of alternate pronouns? Most important Very important Somewhat important Slightly important Not important

- This pronoun set is easy for me to use. - - - - -
- This pronoun set is easy for others to use. - - - - -
- This pronoun set doesn't draw a lot of attention. - - - - -
- This pronoun set is unusual or unique. - - - - -
- This pronoun set expresses something about my gender. - - - - -
- This pronoun set expresses something else about my identity. - - - - -
- This pronoun set sounds aesthetically pleasing. - - - - -
- This pronoun set sounds like me. - - - - -

Q5.3 In your own words, please describe the reasons why you chose your pronoun set/s.

Q5.4 In your own words, please describe how your pronoun set/s relate to your gender expression.

(For example: does it relate to how you want people to perceive your gender? Does it involve contradicting or reinforcing other people's expectations of you?)

End of Block: Choosing Pronouns

Start of Block: Instructions

Q6.1 For the upcoming sections, I will ask questions about situations where you might tell people your pronouns or ask them to use your pronouns for you. I am going to refer to this as "asserting" your pronouns as a general umbrella term.

I will also refer to the pronouns you selected in the first pronoun question as your "ideal" pronouns, and the ones you selected in the second pronoun section as your "alternate" pronouns. When I refer to "your pronouns" generally, I mean any of the pronouns you selected, both your ideal and alternate.

If a situation does not apply to you, please skip the question.

Q6.2 What strategies do you use to assert your pronouns in face-to-face spaces?

- Telling people my pronouns when I am introduced
- Wearing a pin or badge
- Correcting people if they assume incorrect pronouns for me
- Other (please describe)
- I don't assert my pronouns face-to-face

Q6.3 What strategies do you use to assert your pronouns in digital spaces?

- Telling people my pronouns when I am introduced
- Correcting people if they assume incorrect pronouns for me
- Putting my pronouns on my bio or description
- Putting my pronouns in my email signature

- Other (please describe)
- I don't assert my pronouns in digital spaces

Q6.4 What strategies do you use to correct people when they use the wrong pronouns?

- Directly tell them during the interaction
- Directly tell them after conversation is over
- Come up with a way to refer to myself in the third person around them
- Ask a friend to refer to me in the third person around them
- Other (please describe)
- I don't correct people when they use the wrong pronouns
- People never use the wrong pronouns for me

Q6.5 Do you use the same pronouns online and in face-to-face spaces?

- Yes
- Sometimes
- No

Q6.6 What differences are there between your online and face-to-face use of pronouns?

- I use my ideal pronouns online and my alternate pronouns face-to-face
- I use alternate pronouns online and my ideal pronouns face-to-face
- I use multiple sets online and one set offline
- I use one set online and multiple sets face-to-face
- I only use my pronouns online, and don't specify pronouns face-to-face
- Other (please specify)

Start of Block: Home

Q7.1 What pronouns do you prefer your family to use for you?

- None
- He/Him/His/Himself
- She/Her/Hers/Herself
- They/Them/Their/Theirs/Themself or Theirself
- It/Its/Itself
- Ey or E/Em/Eir/Eirs/Emself or Eirself
- Fae/Faer/Faers/Faerself
- Xe/Xem/Xir/Xirs/Xem or Xirself
- No preference/any pronouns/all pronouns
- A set not listed here (please specify)

Q7.2 Do you assert your pronouns with family?

- Yes
- Sometimes
- No

Q7.3 Does your family use your pronouns for you?

- Yes
- Sometimes
- No

Q7.4 Do you correct your family if they use the wrong pronouns for you?

- Yes, always
- Yes, sometimes

- No
- They never use the wrong pronouns for me

End of Block: Home
Start of Block: Friends
Q8.1 What pronouns do you prefer your friends use for you?

- None
- He/Him/His/Himself
- She/Her/Hers/Herself
- They/Them/Their/Theirs/Themself or Theirself
- It/Its/Itself
- Ze/Hir/Hirs/Hirself
- Ey or E/Em/Eir/Eirs/Emself or Eirself
- Fae/Faer/Faers/Faerself
- Xe/Xem/Xir/Xirs/Xem or Xirself
- A set not listed here (please specify)
- No preference/any pronouns/all pronouns

Q8.2 Do you assert your pronouns with friends?

- Yes
- Sometimes
- No

Q8.3 Do your friends use your pronouns for you?

- Yes
- Sometimes
- No

Q8.4 Do you correct your friends if they use the wrong pronouns for you?

- Yes, always
- Yes, sometimes
- No
- They never use the wrong pronouns for me

End of Block: Friends

Start of Block: Work

Q9.1 What pronouns do you prefer people to use for you at work and/or school?

- None
- He/Him/His/Himself
- She/Her/Hers/Herself
- They/Them/Their/Theirs/Themself or Theirself
- It/Its/Itself
- Ze/Hir/Hirs/Hirself
- Ey or E/Em/Eir/Eirs/Emself or Eirself
- Fae/Faer/Faers/Faerself
- Xe/Xem/Xir/Xirs/Xem or Xirself
- A set not listed here (please specify)
- No preference/any pronouns/all pronouns

Q9.2 Do you assert your pronouns at work and/or school?

- Yes
- Sometimes
- No

Q9.3 Do people use your pronouns for you at work and/or school?

- Yes
- Sometimes
- No

Q9.4 Do you correct people if they use the wrong pronouns for you at work and/or school?

- Yes, always
- Yes, sometimes
- No
- They never use the wrong pronouns for me

End of Block: Work

Start of Block: Queer settings

Q10.1 What pronouns do you prefer people use for you in LGBTQIAP+-specific spaces?

- None
- He/Him/His/Himself
- She/Her/Hers/Herself
- They/Them/Their/Theirs/Themself or Theirself
- It/Its/Itself
- Ze/Hir/Hirs/Hirself
- Ey or E/Em/Eir/Eirs/Emself or Eirself
- Fae/Faer/Faers/Faerself
- Xe/Xem/Xir/Xirs/Xem or Xirself
- A set not listed here (please specify)

- No preference/any pronouns/all pronouns

Q10.2 Do you assert your pronouns in LGBTQIAP+-specific spaces?

- Yes
- Sometimes
- No

Q10.3 Do people use your pronouns for you in LGBTQIAP+-specific spaces?

- Yes
- Sometimes
- No

Q10.4 Do you correct people if they use the wrong pronouns for you in LGBTQIAP+-specific spaces?

- Yes, always
- Yes, sometimes
- No
- They never use the wrong pronouns for me

End of Block: Queer settings

Start of Block: Pronoun Usage in Spaces

Q11.1 If you prefer to have different pronouns used for you in different situations, please explain why.

Appendix B

List of Neopronouns

Pronouns are given as Subject/Object/Poss. Adj/Independant Poss./Reflexive

They-Declension

ae/em/aer/aers/aerself
dey/dem/deir/deirs/demself
e/em/eir/eirs/emself or eirself
jee/jem/jeir/jeirs/jemself
jhey/jhem/jheir/jheir/jheirself
ne/nem/neir/neirs/neirself
ne/nem/nir/nirs/nemself
ne/nir/nir/nirs/nemself
rey/rem/reyr/reyrs/remself
se/sim/ser/sers/simself
se/sym/syr/syrs/syrself
tey/tem/ter/ters/temself
xe/xem/xyr/xyrs/xemself
yae/yem/yaer/yaers/yemself
ze/zem/zer/zers/zemself
ze/zem/zir/zirs/zemself
zhe/zhim/zhir/zhirs/zhirself
zhey/zhem/zheir/zheirs/zhemself

He-Declension

che/chim/chis/chis/chimself
dae/daem/daes/daes/daemself
e/rim/ris/ris/risself
e/em/es/es/emself
ha/hem/hez/hez/hezself
hi/hem/hes/hes/hesself
hie/hym/hiz/hiz/hizself
ho/hom/hos/hos/homself
hy/hym/hys/hys/hymself
kai/kaim/kais/kais/kaiself
le/lem/les/les/lesself
lee/lim/lis/lis/limself
ne/nym/nis/nis/nymself
se/hem/hes/hes/hemself
se/sim/sis/sis/sisself
she/shim/shis/sis/shisself
shem/hem/hes/hes/hesself or hemself
ve/vim/vis/vis/visself
xe/xim/xis/xis/xirmself

She-Declension

ae/aer/aer/aers/aerself
cae/caer/caers/caers/caerself

ce/cer/cers/cers/cerself
ce/cir/cir/cirs/cirself
cer/cer/cers/cers/cerself
cshe/cher/chers/chers/cherself
e/ir/ir/irs/irself
hey/heir/heirs/heirs/heirself
kie/kir/kirs/kirs/kirself
qe/qer/qer/qers/qerself
sie/hir/hir/hirs/hirself
sie/sier/sier/siers/sierself
sne/sner/sners/sners/snerself
vae/vaer/vaers/vaers/vaerself
ve/vaer/vaers/vaers/vaerself
xe/hir/hir/hirs/hirself
xe/xir/xir/xirs/xirself
xie/hir/hirs/hirs/hirself
zay/zir/zir/zirs/zirself
ze/hir/hir/hirs/hirself
ze/zir/zir/zirs/zirself
ze/zer/zers/zers/zerself
zhe/zhir/zhir/zhirs/zhirself

It-Declension (non-nounself)

ae/ae/aes/aes/aeself
co/cos/cos/cos/coself
e/er/ers/ers/erself
em/em/em/ems/emself
en/en/en/ens/enself
es/es/es/es/esself
et/et/ets/ets/etself
ham/ham/hams/hams/hamself
hann/hann/hanns/hans/hannself
heesh/heesh/heeshs/heeshs/heeshself
hir/hir/hir/hirs/hirself
hrut/hrut/hruts/hruts/hrutself
hse/hse/hses/hses/hseself
ip/ip/ips/ips/ipself
ix/ix/ixs/ixs/ixself
jup/jup/jups/jups/jupself
nym/nym/nyms/nyms/nymself
on/on/ons/ons/onself
one/one/ones/ones/oneself
sik/sik/siks/siks/sikself
sit/sit/sits/sits/sitself
ter/ter/ters/ters/terself
this one/that one/that one's/that one's/that oneself
thon/thon/thons/thons/thonself
tyr/tyr/tyrs/tyrs/tyrself
ven/ven/vens/vens/venself
whe/whe/whes/whes/wheself
zed/zed/zed/zeds/zedself
fae/faer/faer/faers/faerself
fey/feyr/feyrs/feyrs/feyself
shh/shhr/shhr/shhrs/shhrself

Mixed or Other Declension

ai/ain/aire/aires/ainself
en/ar/es/es/esself
en/en/er/ers/enself
er/eri/eris/eris/eriself
er/im/zayn/zayn/Imself
he'er/him'er/his'er/his'er's/hiserself
heesh/herm/hiser/hisers/hermself
hie/hier/hie/hie/himself
iel/iel/ies/ies/iemself
ir/im/iro/iros/iroself
iz/izen/izesi/?/?
kye/kyr/kyne/kynes/kyrself
na/na/nan/nans/naself

po/xe/jhe/jhes/jheself
se/serm/sers/serms/sermsself or serself
shklee/shklim/shklis/shkler/shklers
soloc/sebita/seniri/siculis/sulago
te/tes/het/het/hetself
ve/ver/vis/vis/verself
ve/vir/vis/vis/visself
ve/vis/vir/virs/verself
xay/xed/xayr/xayz/xayzelf
ze/zan/zan/zans/zanself
zed/zed/zeir/zeirs/zeirself

It-declension Nounself Pronouns

aard/aard/aards/aards/aardself
aqui/aqui/aquis/aquis/aquiself
avi/avi/avis/avis/aviself
baa/baa/baas/baas/baaself
bee/bem/bees/bees/beeself
beep/beep/beeps/beeps/beepself
boo/boo/boo's/boo's/booself
bud/bud/buds/buds/budself
bug/bug/bugs/bugs/bugself
bun/bun/buns/buns/bunself
byte/byte/bytes/bytes/byteself
cat/cat/cats/cats/catself
compute/compute/computes/
computes/computeself
cro/crov/crovs/crovs/crovself
cub/cub/cubs/cubs/cubself
dei/dei/deis/deis/deiself
doe/doe/does/does/doeself
dog/dog/dogs/dogs/dogself
dove/dove/doves/doves/doveself
error/error/errors/errors/errorself
faun/faun/fauns/fauns/faunself
fawn/fawn/fawns/fawns/fawnself
fei/fei/feis/feis/feiself
fin/fins/fins/fins/finsself
fleur/fleur/fleurs/fleurs/fleurself
fluff/fluff/fluffs/fluffs/fluffself
fog/fog/fogs/fogs/fogself
gem/gem/gems/gems/gemself
gill/gill/gills/gills/gillself
gutz/gutz/gutz'/gutz'/gutzself
hart/hart/harts/harts/hartself
inter/inter/inters/inters/interself
kelp/kelp/kelps/kelps/kelpself
kit/kit/kits/kits/kitself
kyuu/kyuu/kyuus/kyuus/kyuuself
leaf/leaf/leafs/leafs/leafself
leo/leo/leos/leos/leoself
lo/lov/loves/loves/loveself
lun/lun/luns/luns/lunself
lynx/lynx/lynx/lynx/lynxself
mar/mar/mars/mars/marself
meow/meow/meows/meows/meowself
mer/mer/mers/mers/merself
mera/mera/meras/meras/meraself
merc/merc/mercs/mercs/mercself
moth/moth/moths/moths/mothself
nap/nap/naps/naps/napself
ne/neo/neos/neos/neoself
neb/neb/nebs/nebs/nebself
nep/nep/neps/neps/nepself
nov/nov/novs/novs/novself
nov/nova/novas/novas/novaself
nya/nya/nyas/nyas/nyaself
otter/otter/otter/otters/otterself
pan/pan/pans/pans/panself
paw/paw/paws/paws/pawself

paw/paw/paws/paws/pawself
per/per/pers/pers/perself
petal/petal/petals/petals/petalself
pix/pix/pixs/pixs/pixself
plan/plan/plans/plans/planself
prox/prox/prox/prox/proxself
pup/pup/pups/pups/pupself
pup/pup/pups/pups/pupself
purr/purr/purrs/purrs/purrself
ram/ram/rams/rams/ramself
rock/rock/rocks/rocks/rockself
roe/roe/roes/roes/roeself
shrimp/shrimp/shrimps
/shrimps/shrimpself
sim /sim/sims/sims/simulaself
sprout/sprout/sprouts/sprouts/sproutself
squeak/squeak/squeaks
/squeaks/squeakself
squid/squid/squids/squids/squidself
stag/stag/stags/stags/stagself
star/star/stars/stars/starself
stem/stem/stems/stems/stemself
sky/sky/skys/skys/skyself
ta/ta/tas/tas/tasself
taur/taur/taurs/taurs/taurself
that/that/that's/that's/thatself
tiger/tiger/tigers/tigers/tigerself
tik/tik/tiks/tiks/tikself
tok/tok/toks/toks/tokself
v/v/v's/v's/vself
vir/virgo/virgos/virgos/virgoself
whisker/whisker/whiskers/
whiskers/whiskerself
wol/wolf/wolf/wolfs/wolfself
wyld/wyld/wylds/wylds/wyldself

Complex Nounself Pronouns

ail/ailou/ailous/ailous/aliouself
aqua/aquariu/aquas/aquas/aquaself
ari/aire/aires/aires/aireself
aro/arom/aros/aros/aroself
au/aut/auto/autos/autoself
bee/beetle/beets/beets/beetleself
ber/beru/berus/berus/beruself
bo/bot/bots/bots/botself
bu/buzz/buz/buz/buzzself
cancer/can/cans/cans/canself
cap/capri/capris/capris/capriself
chir/chirp/chirs/chirs/chirpself
chu/chup/chupa/chupa/chupself
cor/corp/corps/corps/corpself
cro/cron/crons/crons/cronself
cy/cyb/cyber/cybers/cybself
cy/cyb/cybs/cybs/cybself
dove/dove/doves/doves/doveself
dra/drag/drago/drago/dragoself
dre/droid/droids/droids/droidself
ecto/ect/ects/ects/ectself
el/el/elks/elks/elkself
fel/feli/felis/felis/feliself
fey/fer/fers/fers/ferself
fie/fire/fires/fires/fireself
file/the text file/the file//textself
fran/fraken/franken/franken/frankenself
gem/gemini/gemis/gemis/geminiself
giga/giga/gigias/gigias/gigaself
glit/glitter/glitter/glitters/glitters
go/gore/gores/gores/goreself
gro/gore/gross/gross/goreself

harp/harpy/harpys/harpys/harpyself
haun/haunt/haunts/haunts/hauntself
hu/hu/hume/humes/humeself
hy/hydra/hydras/hydras/hydraself
ki/kin/kins/kins/kingself
ky/kyl/kylls/kylself/
lib/libra/libras/libras/libraself
mag/magi/magis/magis/magiself
mechie/mech/mechs/mechs/mechself
mer/mer/mers/mermai/merself
mun/munt/muns/muns/muntself
necro/necrom/necs/necs/necself
no/non/nons/nons/nonself
nyx/nys/nys'/nys'/nysself
oce/ocem/ocems/ocems/oceanself
panth/panthe/panthes/
panthes/pantheself
pi/pisce/piscs/piscs/pisceself
plu/plur/plurs/plurs/plurself
pri/prin/prins/prins/princeself
ru/rune/runes/runes/runeself
sagit/sagitt/sagits/sagits/sagittself
scor/scorp/scorps/scorps/scorpself
scor/scorpio/scorpios/scorpios/scorpioself
sea/sea/sear/sear/searself
sir/sire/siren/siren/sirenself
sol/sun/suns/suns/sunself
spide/spider/spides/spides/spiderself
spiri/spir/spirs/spirs/spirself
tech/techne/techan/techans/techneself
tig/tigri/tigris/tigris/tigriself
vam/vamp/vamps/vamps/vampself
vix/vixs/vixen/?/vixself
voi/void/voids/voids/voidself
wer/were/weres/weres/wereself
whomp/whizz/whirr/whirr/whizzself
wit/witch/witchs/witchs/witchself
wor/worm/wors/wors/wormself
wy/wir/wire/wires/wirself
xe/xen/xeno/xenos/xenoself

Appendix C

Reading and Writing Task Text

C.1 Reading Paragraphs

I shall never forget my first sight of Mary Cavendish. The marvelously tall form; the sense of slumbering fire in her tawny eyes. As I sank into a chair gratefully, she greeted me courteously. I gained a strong impression of her personality even though she spoke of herself little throughout the meal.

I was trying to make up my mind when I ran across John Cavendish. I had seen very little of him for some years. Though he was fifteen years my senior, he hardly looked his forty-five years. I suspected that he would have liked to live by himself, but instead he lived with his stepmother at Styles.

I saw Quinn in a different light that afternoon. I had always felt they were a difficult person to get to know, being shy and reserved - the opposite of their brother. Yet their manner was quietly charming. I suspected that someone could have deep affection for them after getting to know them better.

Dr. Bauerstein quickly explained. It seemed they had been passing the lodge at the crucial moment. A wave of their hand drove us all to the door and they began their work. We watched them anxiously. I could see by the expression on their face that they themself had little hope.

Min was an extraordinary little person. Although it was only five feet, four inches tall, it carried itself with great dignity, and its head was exactly the shape

of an egg. The neatness of its attire was incredible. I believe a speck of dust would have caused it more pain than a bullet wound.

Alex began to sort the ashes from the grate into the fender. I saw that it handled them with the greatest caution. Suddenly, it gave a faint exclamation. I handed it the forceps in its kit, and it extracted a half-charred piece of paper. With great care, it placed this in its case.

Jet is a very resolute person. When po found the key of the despatch-case on a walk by ud, po made ki plans immediately. You see, po considered the letter to belong to na. In the evening, po unbolted the door and oiled it, but put off the rest of ki project until early morning.

Look at it from Amit's point of view. Rushing into the room, kul finds the despatch-case locked. That is a terrible blow to beh. It means that ga presence cannot be concealed. Kul forces the lock with ga penknife, finds what kul is looking for, takes it for vo, and leaves.

I went into the hall to see Shun. I found ze extricating hirself from a mass of scarves. Now that hir pronouncements of doom had come true, I had the urge to hide from hir. If ze had remained at Styles, would the tragedy have happened? Would the criminal have feared hir watchful eyes?

Yet Riley ordered a fire! Yesterday xyr maid said so. Therefore xe wished to destroy something xemself, with no help. The moment I saw the charred fragment in xyr grate, I leaped to the conclusion that xe wanted to destroy some important document. The will was not stolen from xem; it was burned.

Aspen then made a careful examination of the drawers of the wash-stand. A round stain seemed to interest em particularly. First ey went down on eir knees, examining it. Then ey took out eir notebook and jotted down a few notes. Finally, ey poured a few drops of the cocoa into a test tube.

C.2 Survey Flow

Informed Consent (3 Questions) Group: Reading Task BlockRandomizer: 1 Evenly Present Elements

- Standard: He (2 Questions)
- Standard: She (2 Questions)

BlockRandomizer: 4

- BlockRandomizer: 1
  - Standard: Quinn They (2 Questions)
  - Standard: Dr. B They (2 Questions)
- BlockRandomizer: 1 - Evenly Present Elements
  - Standard: Min It (2 Questions)
  - Standard: Alex It (2 Questions)
- BlockRandomizer: 1 - Evenly Present Elements
  - Standard: Jet Nonce (2 Questions)
  - Standard: Amit Nonce (2 Questions)
- BlockRandomizer: 1 - Evenly Present Elements
  - Standard: Aspen (2 Questions)
  - Standard: Riley (2 Questions)
  - Standard: Shun (2 Questions)

Group: Writing Task Standard: Writing Instructions (2 Questions) Standard: Amy (8 Questions) Standard: They Practice (2 Questions) BlockRandomizer: 1 - Evenly Present Elements

- Standard: Blake (7 Questions)
- Standard: Guadalupe (7 Questions)
- Standard: It Practice (2 Questions)

BlockRandomizer: 1 - Evenly Present Elements

- Standard: Ji-soo (7 Questions)
- Standard: Noor (7 Questions)

BlockRandomizer: 1 - Evenly Present Elements

- Standard: Ey Practice (2 Questions)
- Standard: Ze Practice (2 Questions)

- Standard: Xe Practice (2 Questions)

BlockRandomizer: 1 - Evenly Present Elements

- Standard: Xiao (7 Questions)
- Standard: Julian (7 Questions)

BlockRandomizer: 1 - Evenly Present Elements

- Standard: Po practice (2 Questions)
- Standard: Kul practice (2 Questions)

BlockRandomizer: 1 - Evenly Present Elements

- Standard: Moran (7 Questions)
- Standard: Ndidi (7 Questions)

Group: Background Standard: Familiarity Score (5 Questions) Standard: Demographic Questions (8 Questions)

C.3 Survey Text

Start of Block: Informed Consent

UNIVERSITY OF GEORGIA CONSENT FORM Reading and Writing Task You are being asked to take part in a research study. The information in this form will help you decide if you want to be in the study. Please ask the researcher(s) below if there is anything that is not clear or if you need more information. Principal Investigator: Dr. Chad Howe University of Georgia Linguistics chowe@uga.edu Co-investigator: Kit Callaway University of Georgia Linguistics kec47019@uga.edu The purpose of the study is to learn more about how people process and use certain parts of speech. You are being asked to be in the study because you are a fluent speaker of English at least 18 years old. Participation in this research is completely voluntary and you can refuse to participate before the study begins or stop taking part at any point. By participating in this survey, you are granting the investigators permission to use the data you provide for the sole purpose of this research project. If you decide to participate in this study you will complete the following actions:

- Read a series of paragraphs one word at a time and answer comprehension questions
- Use some pronouns in writing
- Answer some questions about how familiar you are with nonbinary and genderqueer topics
- Answer some questions about your demographic information

We estimate that it will take roughly 20 minutes to complete the survey. We do not expect that filling out this questionnaire will create any risks or discomforts on your part. We hope that learning more about the way people process and use pronouns will help others by making it easier to produce documents that help them learn to use those parts of speech more easily. For participating in this survey, you will receive a 10 dollar Amazon.com gift card. To receive this gift card, you must complete the entire survey and provide your email address so they card may be sent. Please note that the card can only be used on the US-based Amazon.com, not on other national versions of Amazon, such as Amazon.ca, Amazon.co.uk, or Amazon.com.mx. Please also do not take the survey more than once - you will only receive 1 gift card regardless. Pursuant to the European General Data Protection Regulation (GDPR) UGA, acting in its capacity as a data controller under the GDPR with respect to the information gathered from you the data subject, must obtain your explicit, affirmative consent before it can collect or process your data for this project. Some of the information you provide may be considered sensitive personal data under the GDPR. Sensitive personal data includes racial or ethnic origin; political opinions; religious or philosophical beliefs; trade union membership; genetic, biometric data; health data; or data concerning a person's sex life or sexual orientation. Any data, including sensitive personal data, that is collected from you will be for the sole purpose of participating in the research study entitled "Reading and Writing Task" referenced above and is necessary for the completion of the study. This may include processing the data as required to comply with applicable laws. The University has an EU GDPR Compliance Policy which includes your individual rights concerning your data. Please see the EU GDPR Compliance Policy (https://eits.uga.edu/access_and_security/infosec/pols_regs/policies/eu_gdpr/). UGA is committed to ensuring the security of your information. We have put

in place physical, technical, and administrative safeguards designed to prevent unauthorized access to your information. Your data will be held under security standards for sensitive devices outlined in the UGA Policy Minimum Security Standards for Sensitive Devices. Data will be handled and processed only by the persons who are responsible for the necessary activities for the purposes above. The information you provide will not be associated with any identifier. The data will be stored for a period of 5 years. No automated decision making will be performed, including profiling, and the collected Data will not be further processed other than the purpose for which it was collected. This research involves the transmission of data over the Internet. Every reasonable effort has been taken to ensure the effective use of available technology; however, confidentiality during online communication cannot be guaranteed. If you have any further questions about the research project, or or wish to have your survey information removed from the respondents, please contact Kit Callaway (kec47019@uga.edu); Phone: 706-542-5099. Any question(s) or concern(s) about your rights as a research participant should be directed to The Chairperson, University of Georgia Institutional Review Board; 706 542-3199; irb@uga.edu.

I consent, and I am at least 18 years of age (1)

Do you know someone who is nonbinary/genderqueer?

- Yes, me (1)
- Yes, someone I know personally (2)
- Not personally, but I am familiar with the concept (3)
- No, and I am not familiar with the concept (4)

For the first part of the survey, you'll be asked to read some brief stories, one word at a time. You'll need to complete this portion on a device with a full keyboard. Press the spacebar on your keyboard when you've finished reading each word, and the next word will appear.

There will be five individual stories to read, with a comprehension question after each one. This section should take you about ten minutes to complete.

End of Block: Informed Consent

Start of Block: He Page Break

Click here and then press space bar to start reading the text. To read next word, press space bar.

Page Break

John Cavendish lives with:

- His father (1)
- His stepmother (2)
- His wife (3)

End of Block: He

Start of Block: She

Click here and then press space bar to start reading the text. To read next word, press space bar.

Page Break

Mary Cavendish is:

- Tall (1)
- Short (2)
- Neither (3)

End of Block: She

Start of Block: Quinn They

Click here and then press space bar to start reading the text. To read next word, press space bar.

Page Break

Quinn was:

- Shy (1)
- Loud (2)
- Angry (3)

End of Block: Quinn They

Start of Block: Dr. B They

Click here and then press space bar to start reading the text. To read next word, press space bar.

Page Break

Dr. Bauerstein had:

- Little hope (1)
- Much hope (2)
- Some hope (3)

End of Block: Dr. B They

Start of Block: Min It

Click here and then press space bar to start reading the text. To read next word, press space bar.

Page Break

Min's attire was:

- Incredibly neat (1)
- Incredibly messy (2)
- Incredibly elaborate (3)

End of Block: Min It

Start of Block: Alex It

Click here and then press space bar to start reading the text. To read next word, press space bar.

Page Break

Alex handled the ashes with:

- Caution (1)
- Carelessness (2)
- Annoyance (3)

End of Block: Alex It

Start of Block: Jet Nonce

Click here and then press space bar to start reading the text. To read next word, press space bar.

Page Break

Jet found the key:

- On a walk (1)
- At dinner (2)
- On a swim (3)

End of Block: Jet Nonce
Start of Block: Amit Nonce
Click here and then press space bar to start reading the text. To read next word, press space bar.
Page Break
Amit forced the lock:

- With a penknife (1)
- With a key (2)
- With a gun (3)

End of Block: Amit Nonce
Start of Block: Aspen
Click here and then press space bar to start reading the text. To read next word, press space bar.
Page Break
Aspen poured cocoa into a:

- Test tube (1)
- Mug (2)
- Dish (3)

End of Block: Aspen
Start of Block: Riley
Click here and then press space bar to start reading the text. To read next word, press space bar.
Page Break
Riley's will was: Burned (1) Stolen (2) Found (3)
End of Block: Riley
Start of Block: Shun

Click here and then press space bar to start reading the text. To read next word, press space bar.

Page Break

Shun's eyes were: Watchful (1) Listless (2) Complacent (3)

End of Block: Shun

Start of Block: Writing Instructions

In the following section, you'll be asked to use pronouns in sentences. Some of them may be familiar to you, and some may not.

First you'll see the list of pronoun forms, and then you'll see an example paragraph. Then you'll be taken to a new page, where you'll see a story with blanks. You'll have to fill the blanks in with the pronouns you just saw.

You won't be able to go back and look at the pronouns again. Read them carefully before you move on, but please don't copy them down to refer to.

There will be five total stories, each with five blanks. This task will take about five minutes to complete.

You can practice with "she" first so you understand the task.

Subject: she. Object: her. Possessive adjective: her. Possessive pronoun: hers. Reflexive: herself.

Example: She made this jacket herself. The design is hers. I like her and her style.

End of Block: Writing Instructions

Start of Block: Amy

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

Amy lay down on the bed and closed _eyes. In the distance, _computer dinged. _ignored it. With a headache like _, no work would get done. The doctor had told _to rest more often.

Amy lay down on the bed and closed _eyes. (possessive adjective) _

In the distance, _computer dinged. (possessive adjective) _

_ ignored it. (subject) _

With a headache like _, no work would get done. (independent possessive) _

The doctor had told _to rest more often. (object) _

Correct answers:

Amy lay down on the bed and closed her eyes. In the distance, her computer dinged. She ignored it. With a headache like hers, no work would get done. The doctor had told her to rest more often.

End of Block: Amy

Start of Block: They Practice

Subject: they. Object: their. Possessive adjective: their. Independent possessive: theirs. Reflexive: themself.

Example: They made this jacket themself. The design is theirs. I like them and their style.

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

End of Block: They Practice

Start of Block: Blake

Blake closed _eyes again. _just wanted to sleep. The children had talked to _nonstop. Those students of _were wonderful, but could be exhausting too. _needed a break.

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

Blake closed _eyes again. (possessive adjective) _

_ just wanted to sleep. (subject) _

The children had talked to _nonstop. (object) _

Those students of _were wonderful, but could be exhausting too. (independent possessive) _

_needed a break. (subject) _

End of Block: Blake

Start of Block: Guadalupe

Guadalupe looked at _car in dismay. A car was important in this city, but _was soaked in three feet of water. _had ignored the flash flood warning in last night's news. To _, it had seemed like no big deal. The responsibility was _.

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

Guadalupe looked at _car in dismay. (possessive adjective) _

A car was important in this city, but _was soaked in three feet of water. (independent possessive) _

_had ignored the flash flood warning in last night's news. (subject) _

To _, it had seemed like no big deal. (object) _

The responsibility was _. (independent possessive) _

End of Block: Guadalupe

Start of Block: It Practice

Subject: it. Object: it. Possessive adjective: its. Independent possessive: its. Reflexive: itself.

Example: It made this jacket itself. The design is its. I like it and its style.

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

End of Block: It Practice

Start of Block: Ji-soo

Ji-soo was distracted driving back to the house. Would _get home before curfew? _parents would ground _if not. _couldn't be grounded - the fault wasn't even _.

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

Would _make it before curfew? (subject) _

_ parents (possessive adjective) _

would ground _if not. (object) _

_couldn't be grounded - (subject) _

the fault wasn't even _. (independent possessive) _

End of Block: Ji-soo

Start of Block: Noor

Noor published _memoirs under a pseudonym. Despite the name change, the words were certainly _. _friends had said there would be a scandal, and urged _not to publish. But _decided to do so anyway.

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

Noor published _memoirs under a pseudonym. (possessive adjective) _

The name had been changed, but the words were certainly _. (independent possessive) _

_ friends had said it was a bad idea, (possessive adjective) _

and urged _not to publish. (object) _

But _decided to go through with it. (subject) _

End of Block: Noor

Start of Block: Ey Practice

Subject: ey. Object: em. Possessive adjective: eir. Independent possessive: eirs. Reflexive: emself.

Example: Ey made this jacket emself. The design is eirs. I like em and eir style.

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

End of Block: Ey Practice

Start of Block: Ze Practice

Subject: ze. Object: hir. Possessive adjective: hir. Independent possessive: hirs. Reflexive: hirself.

Example: Ze made this jacket hirself. The design is hirs. I like hir and hir style.

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

End of Block: Ze Practice

Start of Block: Xe Practice

Subject: xe. Object: xem. Possessive adjective: xyr. Independent possessive: xyrs. Reflexive: xemself.

Example: Xe made this jacket xemself. The design is xyrs. I like xem and xyr style.

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

End of Block: Xe Practice

Start of Block: Xiao

Xiao had a reputation for being fascinating to talk to. That notebook of _was always full of information, and _shared _thoughts freely with all _friends. People stayed in touch with _happily.

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

That notebook of _was always of information, (independent possessive) _

and _shared (subject) _

_thoughts freely (possessive adjective) _

with all _friends. (possessive adjective) _

People stayed in touch with _happily. (object) _

End of Block: Xiao

Start of Block: Julian

Julian was determined to keep _family farm going. A lot of ranching families like _had left. _was determined that _would not be one of them. To _, the ranch was all that mattered.

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

Julian was determined to keep _family farm going. (possessive adjective) _

A lot of ranching families like _had left. (independent possessive) _

_ was determined (subject) _

that _would not be one of them. (independent possessive) _

To _, the ranch was all that mattered. (object) _

End of Block: Julian

Start of Block: Po practice

Subject: po. Object: na. Possessive adjective: ki. Independent possessive: ep. Reflexive: ud.

Example: Po made this jacket ud. The design is ep. I like na and ki style.

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

End of Block: Po practice

Start of Block: Kul practice

Subject: kul. Object: beh. Possessive adjective: ga. Independent possessive: uk. Reflexive: vo.

Example: Kul made this jacket vo. The design is ip. I like beh and ga style.

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

End of Block: Kul practice

Start of Block: Moran

Moran bought a new studio. It was perfect for _because it had plenty of room for all _supplies. _bought some new furniture for it as well. It wasn't shared - it was all _. The style showed a lot about _.

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

It was perfect for _ (object) _

because it had plenty of room for all _supplies. (possessive adjective) _

_bought some new furniture for it as well. (subject) _

It wasn't shared - it was all _. (independent possessive) _

The style showed a lot about _. (object) _

End of Block: Moran

Start of Block: Ndidi

Ndidi was about to vote for the first time in _life. _had just turned 18, and to _, political participation was the most exciting part of adulthood. For a mind like _, it was a very weighty decision - who to support with this crucial vote of _?

Timing First Click (1) Last Click (2) Page Submit (3) Click Count (4)

Ndidi was about to vote for the first time in _life. (possessive adjective) _

_ had just turned 18, (subject) _

and to _, political participation was the most exciting part of adulthood. (object) _

For a mind like _, it was a very weighty decision - (independent possessive)

_

who to support with this crucial vote of _? (independent possessive) _

End of Block: Ndidi

Start of Block: Familiarity Score

Which of these statements best describe your views?

- There are only two genders: male and female (1)
- There are more than two genders (2)
- I am not sure (3)

Do you know anyone who uses singular "they" as their pronoun?

- Yes, me (1)
- Yes, someone I know personally (2)
- Not personally, but I am familiar with the concept (3)
- No, and I have never heard of this before (4)

Do you know anyone who uses "it" as their pronoun?

- Yes, me (1)
- Yes, someone I know personally (2)
- Not personally, but I am familiar with the concept (3)
- No, and I have never heard of this before (4)

Do you know anyone who uses a specially created neutral pronoun, such as "xe/xem/xyr" or "ey/em/eir" as their pronoun?

- Yes, me (1)
- Yes, someone I know personally (2)
- Not personally, but I am familiar with the concept (3)
- No, and I have never heard of this before (4)

If someone asks you to use a new set of pronouns for them (for example: "Please use the pronouns 'he/him/his' for me), how likely are you to do it?

- I will always do it (1)
- I will always try to do it, but might slip up (6)
- I will sometimes try to do it (Please specify conditions) (2) _
- I will never try to do it (3)

End of Block: Familiarity Score
Start of Block: Demographic Questions
How old are you?
Are you a native speaker of English?

- Yes (1)
- No (2)

How much time do you spend on social media websites (like Facebook, Reddit, Twitter, etc) each day?

- 6+ hours (1)
- 5-6 hours (2)
- 3-4 hours (3)
- 1-2 hours (4)
- less than 1 hour (5)

When you spend time on social media, do you interact more with anonymous people whose offline identities you don't know much about, or nonanonymous people whose offline identities you know a lot about?

- Exclusively anonymous (1)
- Mostly anonymous, but some nonanonymous (2)
- About equal numbers of each (3)

- Mostly nonanonymous, but some anonymous (4)
- Exclusively nonanonymous (5)
- I don't interact at all with people on social media (6)

What is your gender?

- Male (1)
- Female (2)
- Nonbinary and/or Genderqueer (3)
- Other (4)

Do you consider yourself a member of the LGBTQIAP2S+ community?

- Yes (1)
- No (2)

Which of these best describes you?

- I am transgender. (1)
- I am cisgender. (2)
- I am neither transgender nor cisgender. (3)
- I am questioning or otherwise unsure. (4)
- I do not know what this means. (5)

If you would like to receive a 10 dollar Amazon gift card for your participation, please enter an email address through which it can be sent to you. You will receive the gift card within 1 week of participation. _

End of Block: Demographic Questions

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