The phenomenon *singular they* and Dutch speakers of English

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15 June, 2016

Abstract

This paper tries to determine to what extent Dutch advanced speakers of English accept the English phenomenon *singular they. Singular they* is an English language phenomenon that occurs when singular human antecedents become increasingly ambiguous. If the syntactically third person singular human antecedents are ambiguous and/or plural enough, English speakers can choose to use the plural pronoun *they* in reference to a singular antecedent. There is no similar phenomenon in Dutch, which is after all a closely related language to English. Based on analyses by Audring (2009, 2013), Newman (1992, 1998) and Siemund (2002, 2008) three different factors are determined for both languages that lead speakers' choice of pronouns. In the comparison of the two it is clear that Dutch only allows for the plural pronoun to be used in reference to singular antecedents in one specific situation. The three factors for English were used to make a grammar acceptability judgement test which tested both English native speakers and Dutch advanced speakers of English. This test also differentiated between the factors that allow for the plural pronoun in English and the one factor that allows for the plural pronoun in Dutch. From the results on this test it has become clear that Dutch advanced speakers do not fully accept the use of *singular they*, but they do show similar acceptance patterns to the English system. However, upon closer examination it became clear that these Dutch speakers show a distinct higher acceptance for *singular they*, in situations where the Dutch pronominal system would also allow for the plural pronoun. Thus indicating that the Dutch pronominal system still plays a role for pronoun choice in English for Dutch advanced speakers of English.

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1. Introduction

Pronouns are essential to languages. Without pronouns we would be constantly repeating proper names and noun phrases, which takes a considerably longer time and uses a lot more printing paper. The thing is, we need those proper names and noun phrases to tell us which pronoun to use. They serve as antecedent and to do so they show agreement with the pronoun. In some languages pronouns and their antecedents need to agree for grammatical gender categories, while in other languages pronouns and their antecedents can agree semantically (Corbett, 1991). Previous studies have shown that in English all pronouns agree semantically based on several semantic factors (Newman, 1992, 1998; Siemund, 2002, 2008). These factors can only distinguish semantic genders in the third person singular, with the pronouns *he, she* and *it*, but sometimes these three genders are not enough.

Newman (1992, 1998) described this problem as an "an awkward issue in the setting of Standard English norms" (Newman, 1992, p. 447): when the antecedent to a pronoun is a syntactically third person singular human, but its gender and number are ambiguous, speakers often find that the three normal pronouns are not adequate. *He* refers to a male being, *she* to a female being and *it* refers to animals and objects. One of the options available to English speakers in this case is to refer to this person with a *generic he*: in this case the male pronoun is used as a generic pronoun. Another, far more interesting, option in English allows for the plural pronoun *they* to be used in reference to these ambiguous singular antecedents. This phenomenon is also known as *singular they*.

Within the Germanic languages English is quite the unicorn in this respect. The other Germanic languages all show grammatical gender to some degree and show gender agreement accordingly (Audring, 2009). Even a Germanic language like Dutch, that has lost most of its overt grammatical gender morphology, still assigns gender to its pronouns partly based on these grammatical gender categories (and for another part based on the semantic gender of the antecedent) (Audring, 2009, 2013). Where English speakers have to make a semantic decision when referencing an ambiguous antecedent in English, Dutch speakers can follow syntactic rules when referring to an ambiguous antecedent in Dutch. But how will Dutch speakers solve this problem when they use English: to what extent do Dutch speakers of English accept the use of *singular they*?

The difference in semantic gender agreement in English and both formal and semantic agreement in Dutch could lead to significant differences for the acceptance of *singular they* by Dutch speakers. To fully master the use of *singular they* Dutch speakers in their L2 would not only have to let go of their Dutch intuitions, but they would also have to learn the

semantic rules for English. The problem with these semantic rules is that they do not show overtly on the antecedents, so Dutch speakers would have to develop semantic intuitions about English. For this reason, the empirical research, in the form of a grammar acceptability judgement test, will be focussed on Dutch advanced speakers of English, in the hope that they have come across this unique trait of English and have to some certain extent become aware of how it is used by English native speakers.

Since *singular they* is linked to the absence of gender agreement in English, it is necessary to understand more clearly how languages assign can gender in general. Only then can we seek to understand the different gender systems of English and Dutch, and thus the different ways these languages assign gender to pronouns. Corbett (1991, 2006) has done extensive research on gender agreement throughout the world's languages. He has found that most languages assign gender at least partly, if not fully, based on semantic rules. English is one of the languages that assigns gender fully based on semantic rules. A good part of the world's languages also assign gender partly based on formal rules. Dutch is then one of these languages. Newman (1992, 1998) and Siemund (2002, 2008) have provided both an extensive explanation on pronoun choice and gender in general for English, and a thorough analysis of the semantic factors that are at work concerning the phenomenon *singular they.* Audring (2009, 2013) has attempted to find a similar coherent explanation for pronoun choice and gender in general for Dutch. Although she concludes that semantic factors do play a part in the Dutch pronominal system, in comparison to the English system Dutch speakers rely far less on semantic factors.

To analyse structurally whether Dutch advanced speakers of English show a different acceptance for *singular they* according to the rules of Dutch, a grammar acceptability judgement test will be provided to two different groups. The first group will be composed of English Native speakers, which are tested to confirm or disconfirm the predictions made by previous research about *singular they*. The second group will be composed of Dutch advanced speakers of English that are tested with the goal of determining to what extent Dutch speakers find the use of *singular they* acceptable.

Since pronouns are vital in our daily use of language, it is intriguing to find that the English language has situations where speakers cannot be sure which gender they have to assign to an antecedent. This issue is caused by the fact that gender in English is assigned based on semantic rules, and can often be solved by using the plural pronoun in reference to a singular antecedent: *singular they*. In the comparison of the Dutch and English language it is obvious that Dutch does not have a comparable phenomenon. This paper tries to determine to

what extent, if at all, Dutch advanced speakers of English accept the appearance of *singular they*. This paper will try to fully comprehend this phenomenon by first explaining grammatical gender systems in general, and will follow this by a thorough analysis of pronominal gender in both English and Dutch. At that point the grammar acceptability judgement test will be further described, after which the results will be discussed. This paper will end with an in-depth discussion of the results. The main research question will be answered based on this discussion, and suggestions for future research will also be made based on this discussion.

2. How do English and Dutch speakers choose pronouns?

To understand the phenomenon of *singular they* in English, we need to understand what makes a speaker choose a specific pronoun in English. Siemund (2002, 2008) provides insight into the pronominal system of English, especially when it comes to the choices of speakers between the pronouns *he*, *she*, *it* and *they*. Newman (1992, 1998), on the other hand, focuses singularly on the phenomenon *singular they*, and is able to define the influential factors around its occurrence. In the same way, an understanding of how Dutch speakers assign pronouns in Dutch is required to see if Dutch advanced speakers transfer Dutch intuitions to English when it concerns *singular they*. In this area Audring (2009, 2013) has done extensive research, and provides a similar insight into Dutch pronoun choices as Siemund does for English.

It becomes clear in Audring's (2009, 2013), Newman's (1992, 1998) and Siemund's (2002, 2008) research that understanding the pronoun systems of English and Dutch is not possible without understanding more clearly how languages in general can assign grammatical gender. So first a broader insight into the theories and research about the different ways language can assign gender has to be acquired. Corbett (1991, 2006) provides a thorough analysis of how different gender systems work, and how these influence several elements within a language. It follows, then, that in order to understand *singular they* and the choice of pronouns in English and Dutch, it is first important to understand how a language assigns grammatical gender and second how this can influence the choice of pronouns. Only after that can the pronominal system of English and Dutch be understood more clearly.

2.1 How do languages assign gender?

First, it must be noted that within this discussion three forms of gender are going to collide; namely grammatical gender, semantic gender, and true gender. Grammatical gender is merely a category that is assigned by certain grammatical and sometimes morphological and phonological features. These categories are usually labelled masculine, feminine, neuter and common (common is a combined gender of masculine and feminine). The number of these categories differs per language, and for every language it can be a different in the extent to which linguistic elements inflect for them. Semantic gender refers to the assignment of nouns and referents to a grammatical gender based on semantic rules. As discussed later on, these rules can be in reference to the true gender of a referent but can also be based on other rules. Lastly, true gender refers to the actual gender of a referent, usually a person. To avoid

confusion within this paper, simply the term gender will refer to grammatical gender categories, and semantic gender and true gender will be identified specifically.

Corbett (1991, 2006) has done extensive research on both gender and agreement. Corbett divides languages into two main systems based on how these languages assign gender to their nouns; semantic systems and formal systems. According to him, semantic systems are distinguished from formal systems by assigning gender based on differences between animacy and non-animacy, human and non-human, male and female etc. (Corbett, 1991, p. 30). Corbett notes that how the use of these rules differs among the semantic languages, but these three distinctions seem to come back in many semantic languages. Semantic languages can also be divided into two systems; strict semantic systems and predominantly semantic systems (Corbett, 1991).

The assignment of gender in a strict semantic language is usually based on a natural gender system (Corbett, 1991; Siemund, 2008). A natural gender system looks at the true gender of words to determine semantic gender categories, instead of looking at its form or morphology. This means that if a noun describes a female human or animal, it will be described as having feminine gender. This also goes vice versa; a noun with feminine gender will describe a female being in these languages (Corbett, 1991). However, this is not the only possibility; the core of strict semantic systems is that they assign gender to nouns based on strict semantic categories with no exceptions. These categories can be based completely on a natural gender system. However there are languages where the semantic rules do not stay true to the natural gender system. In these languages there are semantic rules that assign certain nouns to an unexpected gender category. This happens in some Cushitic languages where both females and diminutives belong to the same gender (Corbett, 1991). As long as these exceptions also function according to strict rules, Corbett (1991) still sees this as a strict semantic system.

The difference between a strict semantic system and a predominantly semantic system is found in the rules that assign gender. Strict semantic systems would have no exceptions or leaks in the rules that assign gender, whereas predominantly semantic systems can have exceptions or leaks where the semantic rules are not enough or broken (Corbett, 1991). Corbett (1991) calls these semantic residue and leaks. Semantic residue is a group of nouns that are assigned to a gender because they are leftovers from the rules that assign the other genders. Corbett defines them as such, because he argues that a semantic rule can only be phrased as a positive rule (male humans get masculine gender) and not negative (nouns that are not human males get neuter gender). Especially if a language has several semantic rules,

such a negative rule for the residue would become immensely complicated. This is then Corbett's argument for considering these occurrences residue instead of a rule. According to Corbett, leaks are similar to residue with the distinct difference that leaks are exceptional words that appear in different genders of the language because they do not follow the semantic rules they should.

Formal systems are systems that assign gender based on morphological or phonological rules. Corbett (1991) says that these gender categories usually overlap with semantic gender categories. The systems are formal because the nouns that would become residue in a semantic language get assigned to gender categories by formal rules. A phonological system is a system where the semantic rules are supplied with rules based on phonological features of a word. These phonemes are present in the main form of a noun (Corbett, 1991). Corbett's definition of a phonological system applies for example to French, where the phonological ending /m/ on a noun is a good indicator of masculine gender, although Corbett admits that again semantic rules take over for words like *femme(woman)* (/fam/) (Corbett, 1991, p. 61) . Morphological systems assign gender based on a morphological set of features, rather than a single feature in a base word (Corbett, 1991). This can be found in Russian; where, according to Corbett, the gender of nouns in the residue is determined "by the declensional type of the noun" (Corbett, 1991, p. 35). For some of the nouns the gender can be determined simply by its inflection in the nominative case, which would suggest a phonological system. But for some of the Russian nouns it is necessary to look at their inflection in several different cases to determine its gender, which makes Russian a morphological system (Corbett, 1991). However, Corbett notes that there are very few languages that have a large set of nouns assigned to genders by morphological rules; usually there are underlying phonological or semantic rules.

In short, almost all languages assign gender categories based on semantic rules. The degree to which they do so differs. For semantic languages the semantics of words carries the most importance when it comes to assigning gender, whereas for formal languages these are supplied for a distinct part by rules based on morphological or phonological features. Determining whether a language belongs to a certain gender system will enhance understanding of how a language assigns gender, but will not necessarily explain on which linguistic elements, for example adjectives or pronouns, in a language gender can be found and which gender this might be. This is then important in understanding speakers' choices of pronouns.

2.2 Elements of gender agreement and pronouns

The language elements which agree for gender differ per language and even within a language the amount of agreement can differ. Corbett (1991, 2006) finds that the kind of gender agreement that different language elements show can be explained through "The Agreement Hierarchy" (Corbett, 1991, p. 226). This is a hierarchy that orders elements that can show gender agreement based on the likelihood of showing semantic gender agreement rather than formal gender agreement. It looks as follows:

> The Agreement Hierarchy
>
> attributive < predicate < relative pronoun < personal pronoun
>
> (Corbett, 1991, p. 226)

The more to the right you go on this hierarchy, the more likely an element will show semantic gender agreement, while the other way around it becomes more likely for elements to show formal gender agreement (Corbett, 1991). This then means that personal pronouns are very likely to show semantic gender agreement with respect to their referents. On the other hand, adjectives, which are in attributive or predicate positions, are more likely to show syntactic agreement according to formal rules (Corbett, 1991). Corbett argues that the likelihood of semantic agreement differs between languages: languages that mostly rely on formal rules are considerably less likely in general to show semantic agreement, but if they do it is most likely on the personal pronoun. In certain languages this will lead to multiple possibilities of agreement. In a language like Dutch, a diminutive belongs to neuter gender, but if the diminutive means 'little girl', semantically it could be referred to with a feminine pronoun:

(1) Het   meisje   riep   dat   ze   honger had.
    the-NEUT   girl-DIM   cried out that-CONJ   she-F   hunger   had.
    'The little girl cried out that she was hungry.'

In this case the semantic rules are in competition with the formal rules. It is for these kinds of situations that Corbett's Agreement Hierarchy provides an explanation: the more to the right you come the more likely it is that an element agrees semantically.

The Agreement Hierarchy can also provide insight into the loss of agreement on language elements (Corbett, 2006). According to Corbett (1991, 2006) gender agreement is lost first in the noun phrase, including adjectives and articles, and best preserved in the

pronouns of a language. Languages that show gender only in the pronoun system can be described as having a pronominal gender system (Corbett 1991; Siemund 2008). In these cases it is impossible to check the agreement between the gender assigned to the pronoun and the gender of the antecedent noun since there is no gender category on the noun. Corbett, nevertheless, argues that pronouns get their gender from their antecedents in these languages through semantic gender assignment: even though the noun phrase may not have gender the semantic rules can assign gender to the pronouns based on the semantics of the antecedent.

A problem that tends to arise with languages that distinguish gender is the moment there is a so-called 'reference problem' (Corbett, 1991). Such a problem arises when the rules are unclear about the gender of a referent, and thus a noun or pronoun in a phrase. Usually, a referent (the mental image of the entity referred to) and its gender are defined by an overt antecedent such as a proper name (Jack) or a noun phrase (the mother), but sometimes this overt antecedent is unclear or absent. This can happen in several situations, for example when a speaker asks 'who' did something (Corbett, 1991). In this case a speaker might not know if they ask about a male, female or neuter referent, let alone which gender they need to assign to 'who'. Other situations can include reference to nouns that do not distinguish the sex of a person in a language that uses semantic rules to assign gender to humans, like 'member' or 'stranger' (Corbett, 1991).

According to Corbett (1991), languages and speakers of languages can use four strategies to deal with these referencing problems. These strategies are usually applied as long as a gender is unknown, and fall back into normal patterns once a speaker learns the true gender of a referent. Firstly, languages might use one of the existing genders by convention, for example using masculine gender to reference when a gender is unknown (Corbett, 1991). Secondly, a language might have the possibility of an evasive option; an option that does not favour a gender associated with a semantic gender but that avoids it altogether (Corbett, 1991). Corbett sees the use of the plural pronoun *they*, also known as *singular they*, as such an evasive option in English. These two strategies seem to be the most common strategies languages and speakers apply when faced with referencing problems. However, Corbett explains that there are two more possible options, namely using a special form for these gender conflicts or not having a preferential strategy at all. It appears that there is no language that Corbett can think of that has a special exception for referents of unknown gender, and there are only few languages that have no preferred strategy of dealing with referencing problems.

To sum up, Corbett (1991, 2006) uses the Agreement Hierarchy to account for two interesting phenomena in gender agreement. Firstly, it shows that some language elements are more likely to show semantic gender agreement when formal rules dictate another gender; specifically the personal pronouns tend to show semantic agreement more than any other of the elements. On top of that it also shows that the language elements that tend to agree according to formal rules, are the first to lose agreement. However, because semantic agreement is more important for pronouns, this leads to referencing problems when the true gender of a referent is unclear. In the analysis of the English pronominal system and the Dutch pronominal system, it will become clear that these languages deal with this problem differently.
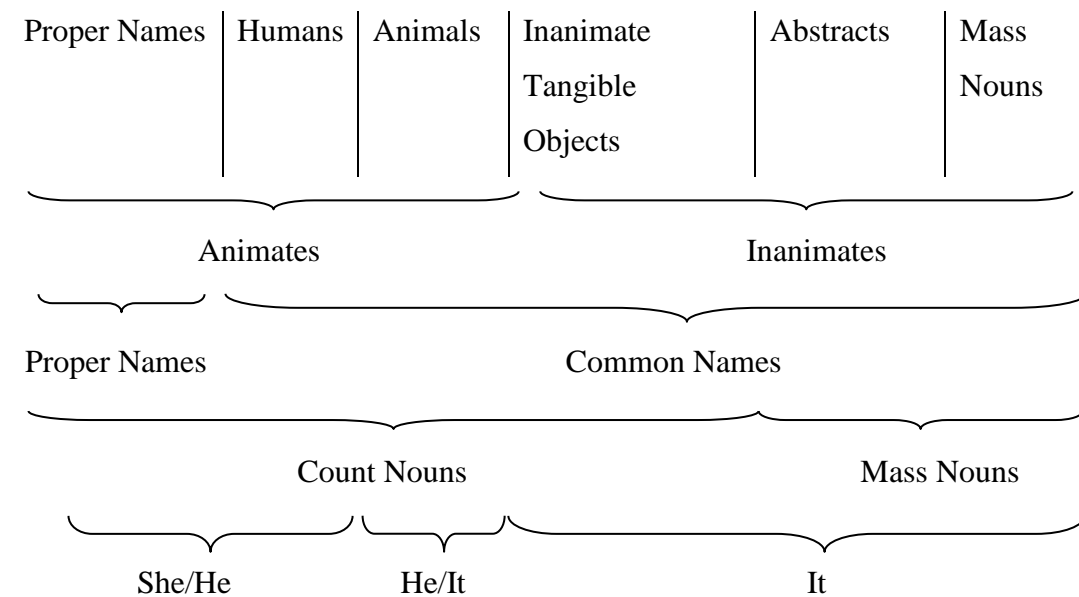
2.3 The English pronominal system

Both Corbett (1991) and Siemund (2008) find that English has no formal rules for assigning gender whatsoever. It is in Corbett's definition a strictly semantic system. Siemund agrees with Corbett in this and through analysis of several varieties of English Siemund asserts that it can be shown that English has formed only positive semantic rules to assign gender. There is a slight problem with gender in English: it only shows up on the third person singular personal, possessive, and reflexive pronouns. However, Siemund follows Corbett in his belief that gender in the pronouns and the binary contrast in the interrogative pronouns is enough to define English as having a pronominal gender system.

The problem with defining a system as strictly semantic is that the choice of gender is up to speaker intuitions that follow these semantic rules. However, Siemund (2008) and Newman (1992, 1998) have tried to pin down which factors speakers of English take in consideration when they decide on which pronoun to use. The in-text antecedent in this case will be a syntactic third person singular antecedent, because only in the third person singular does English make the distinction between the masculine, feminine and neuter gender.

Siemund (2008) finds that in English the semantic rules dictate the assignment of these pronouns based on the Hierarchy of Individuation. This is a hierarchy that divides several kinds of objects and beings on a scale based on the level of individuation speakers feel for them. Humans score high (left) on this scale because a speaker sees them as specific individuals, animals score lower, and mass nouns like 'stone' score extremely low (right).

The Hierarchy of Individuation – for English

| Proper Names | Humans | Animals | Inanimate Tangible Objects | Abstracts | Mass Nouns |

Animates | Inanimates

Proper Names | Common Names

Count Nouns | Mass Nouns

She/He | He/It | It

(Siemund, 2008, p. 140)

Siemund (2008) shows that in different varieties of English, speakers use the animate pronoun *he* and *she* for animals and even inanimate objects, but that there is never a pattern where the animate pronouns are used for humans and mass nouns only. Apparently the use of animate pronouns starts at the left of this hierarchy and different varieties of English use this hierarchy, and the pronouns, to a different degree moving to the right. Standard English for example uses *he* an *she* almost exclusively for proper names and humans, and some animals that are considered to be more individuated, also called higher animals; specific pets or intelligent animals (Siemund, 2008). However, according to Siemund (2008) the reference to animals with animate pronouns rather than with the neuter *it* is probably dependent on the formality of speech in Standard English.

The Hierarchy of Individuation thus explains why speakers of English would never refer to a human with the neuter pronoun *it.* This leaves the question of how speakers choose pronouns when referencing humans, especially in the case of a referencing problem when the semantic gender of a referent is unclear. Newman (1992, 1998) provides three semantic factors on which speakers of English rely when choosing the gender that belongs to a human referent: 'Semantic Gender', 'Notional Number' and 'Individuation'. These factors and speakers' intuitions about them usually present themselves only when a speaker needs to decide on a personal or possessive pronoun. In regular situations this allows speakers to choose between masculine *he/his* and feminine *she/her.* But as Corbett (1991) explained,

there are problems when a human referent becomes ambiguous. This happens in English when a speaker is unsure about the true gender of a referent, or because certain quantifiers and nouns can make syntactic singular object seem semantically plural. Newman accounts for these referencing problems and argues that it becomes more likely for speakers to choose the evasive option *they/their* instead of the option by convention *he/his*, when a human referent becomes more ambiguous.

Since the English language has a strict semantic system, it follows that the factors that assign pronominal gender are also semantic rules. Newman's (1992, 1998) description provides the aforementioned three factors: 'Semantic Gender, 'Notional Number' and 'Individuation', which are all based on the semantics of the referent, not on the syntactic properties of the antecedent. This means that for English speakers the meaning or semantics of a referent is more important than the syntactic properties when assigning gender.

Newman's first factor is 'Semantic Gender'. This factor allows for three options: male, female or epicene. If a speaker identifies a referent as male or female, the choice for the pronouns *he* or *she* is more likely. If a speaker cannot determine the true gender of a referent, such a referent is called epicene; in these cases the choice for the pronoun *they* becomes more likely. This choice can be exemplified with the example of parents; 'father' and 'mother' can be distinctly identified as male or female but 'parent' cannot and is thus identified as epicene.

Secondly, Newman (1992, 1998) describes the factor 'Notional Number'; this is determined by the number the speaker perceives the referent to have. If a speaker finds that the referent, based on the antecedent, is a singular person the singular pronouns *he* or *she* are again more likely. However, if a speaker perceives the referent to be multiple people the choice for *they* is more likely. This difference is usually between singular beings like 'girl' and quantified beings like 'every girl' or collective terms like 'the women's football team'; in the case of the last two, speakers can assume that they are talking about a group of people. In other cases a speaker might not be able to decide; generalisations and the quantifier 'any' allow for both a singular interpretation and a plural interpretation. Compare the following sentences:

(2) a. A father loves his children.

b. Any father loves his children.

c. Any mother loves her children.

d. Any parent loves their children.

Sentence (2)a is a generalization made by use of the indefinite article. Sentences (2)b, (2)c and (2)d have referents that are quantified with 'any'. It is difficult for all of these sentences for speakers to determine whether it concerns one 'father'/'mother'/'parent' or more than one. Newman calls these number-neutral situations and in these situations the other two factors, 'Semantic Gender' and 'Individuation', tend to determine whether a speaker chooses for *he*, *she* or *they*. In sentences (2)a, (2)b and (2)c, the Semantic Gender of the referent is either masculine or feminine and can thus select the masculine or feminine pronouns. In sentence (2)d the referent is epicene and prefers the selection of *they*. However, because these number-neutral situations are usually a form of generalizations, they do not score high on individuation. As the category 'Individuation' will show, this will lead to a slight preference in number-neutral situations for the plural pronoun *they*.

The third category 'Individuation' does not leave a simple choice between two or three options (Newman, 1992, 1998). In line with Siemund (2008), Newman perceives this more as a scale on which a speaker defines the referent as separate from the rest of the world. With respect to human referents, it is the difference between talking about 'my father John' and 'a father'. However, Newman adds to this category by observing that higher individuation will make it more likely that speakers choose for the pronouns *he* and *she*, while low individuation will make speakers more likely to choose for *they*.

These three factors allow us to determine the likelihood of an English native speaker to choose *they* as pronoun for the referent. So for example if a referent is male, singular and scores high on individuation we can say that there is next to zero possibility of a speaker accepting *they* to reference it, instead *he* is the only valid option:

(3)a.   My father always scratches his beard.
(3)b.   *My father always scratches their beard.

On the other hand when a referent is epicene, plural and scores low on individuation it is almost certain that a speaker will accept *they,* and it becomes increasingly unlikely that *he* or *she* is accepted:

(4)a.   Every kid in the class forgot to turn their phone off.
(4)b.   ?Every kid in the class forgot to turn his phone off.
(4)c.   ?Every kid in the class forgot to turn her phone off.

This means that the expectation is that native English speakers will only accept *he* for male, singular and highly individuated referents, only accept *she* for female, singular and highly individuated referents, and only accept *they* for epicene, plural & neutral, low individuated referents. All the other possible combinations of factors always have at least one factor in favour of *he/she* and always one in favour of *they*. Newman (1992, 1998) determines that for these cases English speakers tend to have different personal preferences for the use of *they*, which could be explained in individual case through different social influences such as education but can rarely be predicted.

Table 1 represents Newman's (1992, 1998) semantic factors and the choices they allow. It appears that there is no possibility of a referent being both number neutral and highly individuated. The other options are all possible and ranked with 2 numbers: the first representing the factors that allow for the choice of the pronouns *he* or *she*, and the second representing the factors that allow for the choice of the pronoun *they*. In this chart it has been assumed that the number-neutral option selects the pronoun *they* even if the preference is only slight.

Table 1 – The factors determining pronouns in syntactic third person singular situations in English based on Newman (1992, 1998)

	Semantic factors of the referent.								*he* or *she* / *they*
	Semantic Gender			Notional Number			Individuation		
	Male	Female	Epicene	Singular	Plural	Neutral	High	Low	
1	+ he	-	-	+ he/she	-	-	+ he/she	-	3/0 - *he*
2	+ he	-	-	+ he/she	-	-	-	+ they	2/1
3	+ he	-	-	-	+ they	-	+ he/she	-	2/1
4	+ he	-	-	-	+ they	-	-	+ they	1/2
5	+ he	-	-	-	-	+ they	+ he/she	-	impossible
6	+ he	-	-	-	-	+ they	-	+ they	1/2
7	-	+ she	-	+ he/she	-	-	+ he/she	-	3/0 – *she*
8	-	+ she	-	+ he/she	-	-	-	+ they	2/1
9	-	+ she	-	-	+ they	-	+ he/she	-	2/1
10	-	+ she	-	-	+ they	-	-	+ they	1/2
11	-	+ she	-	-	-	+ they	+ he/she	-	impossible
12	-	+ she	-	-	-	+ they	-	+ they	1/2
13	-	-	+ they	+ he/she	-	-	+ he/she	-	2/1
14	-	-	+ they	+ he/she	-	-	-	+ they	1/2
15	-	-	+ they	-	+ they	-	+ he/she	-	1/2
16	-	-	+ they	-	+ they	-	-	+ they	0/3 - *they*
17	-	-	+ they	-	-	+ they	+ he/she	-	impossible
18	-	-	+ they	-	-	+ they	-	+ they	0/3 - *they*

Newman's (1992, 1998) and Siemund's (2008) analyses of English predict that native English speakers will prefer *he* and *she* when referencing to people, and when a referent is ambiguous speakers will be more likely to choose *they* even though the referent is third person singular. This can now be compared to the Dutch pronoun system.
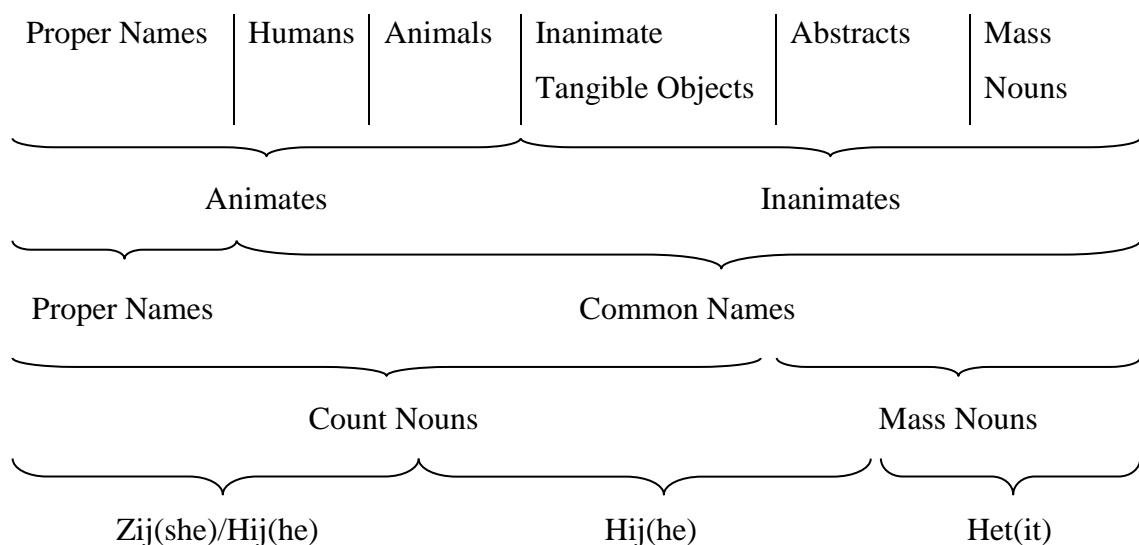
2.4 The Dutch pronominal system

Audring's (2009, 2013) research shows that Dutch is what Corbett (1991) would define as a formal system. Audring argues that Dutch has two systems in competition when it concerns gender assignment: the syntactic rules that come from the formal gender assignment to nouns

and referents, and the semantic rules that mostly navigate pronouns. The Dutch formal system is shown in the divide between common and neuter gender. Common gender is assigned to nouns that get the definite article *de (the),* and represent what used to be masculine and feminine gender in Dutch (Audring, 2009, 2013). Neuter gender is assigned to nouns that get the definite article *het (the)*, but only represents what was ever the neuter gender. The divide between common and neuter gender is present in the articles, demonstrative pronouns, attribute adjectives and relative pronouns. This means that gender agreement can be checked for neuter nouns with neuter pronouns, and common nouns with common or masculine and feminine pronouns. Audring claims that unlike some other languages the formal rules that determine gender in Dutch are not extremely clear, but the difference between neuter and common is distinct for the vast majority of Dutch native speakers.

The pronominal system has a different gender division. Much like English the third person singular pronouns make a distinction between masculine *hij (he),* feminine *zij (she),* and neuter *het (it)*. Audring (2009, 2013) argues that the formal rules navigate the noun phrase in Dutch but that, in line with Corbett's (1991) Agreement Hierarchy, the pronouns are more likely to follow the semantic rules. Audring has found that the Dutch pronominal system is governed so much by semantic rules that she could distinguish semantic rules that are based on a natural gender system and follow the Hierarchy of Individuation.

The Hierarchy of Individuation – for Dutch

Proper Names	Humans	Animals	Inanimate Tangible Objects	Abstracts	Mass Nouns

Animates	Inanimates

Proper Names	Common Names

Count Nouns	Mass Nouns

Zij(she)/Hij(he)	Hij(he)	Het(it)

(Audring, 2009, p. 127)

In Dutch this means that masculine and feminine pronoun gender, *hij (he)* and *zij (she)*, are usually used to reference humans and some higher animals (Audring, 2009). Most of the time, masculine pronoun gender is further used for all other animals, objects of all kinds and some specific mass nouns. The rest of the mass and abstract nouns are referenced with neuter gender *het (it)* (Audring, 2009). This is already in contrast with the English system where the Hierarchy of Individuation showed that in standard varieties of English the following sentence would be ungrammatical, while it is grammatical in Dutch:

> (5) De   fiets   is   kapot,   hij   heeft   een   lekke   band.
> The-COM   bicycle   is   broken,   he-M   has   a   flat   tire.
> 'The bicycle is broken; he has a flat tire.'

When referencing humans, Dutch speakers rely on three factors to determine which pronoun should be used in reference to a human: 'Syntactic Agreement', 'Semantic Gender' and 'Collective Noun'. Unlike English speakers Dutch speakers look both at the syntactic properties of the overt antecedent, and the semantic properties of the referent this overt antecedent refers to. The first factor Audring (2009, 2013) describes is 'Syntactic Agreement'. This factor is decided by the properties of the overt antecedent, or noun that is present in a text or sentence. If the antecedent is a noun of common gender, distinct because of the definite article *de (the)*, it can only be referred to with masculine or feminine pronoun gender. Audring finds this to be a constraint, so common nouns that refer to humans can never take the neuter pronoun *het (it)* and based on the 'Semantic Gender' prefer the masculine pronoun *hij (he)* or the feminine pronoun *zij (she)*. On the other hand a neuter noun in reference to a human can take all pronoun genders: neuter, masculine or feminine pronoun gender (Audring, 2009, 2013).

The second factor, 'Semantic Gender', then works closely together with the first factor 'Syntactic Agreement'. Similarly to English speakers, speakers of Dutch will distinguish human referents in semantic male, semantic female and epicene (Audring, 2009). Semantic male and semantic female will automatically prefer the masculine and feminine pronoun gender, but semantic epicene nouns do not carry such preference. When a semantic epicene noun is of syntactic neuter gender, it allows for the neuter pronoun gender but also for the masculine and feminine pronouns. Demonstrated in sentences (6)a, (6)b and (6)c, *kind* 'child' is a syntactic neuter noun in Dutch, and it categorizes for semantic epicene gender. Thus it

allows for all three pronouns, including the neuter pronoun, depending on the contextualised idea of the referent by the speaker:

(6) a. Het   kind   riep   dat   hij   honger   had.

        the-NEUT   child   cried out   that-CONJ   he-M   hunger   had.

        'The child cried out that he was hungry.'

    b. Het   kind   riep   dat   ze   honger   had.

        the-NEUT   child   cried out   that-CONJ   she-F   hunger   had.

        'The child cried out that she was hungry.'

    c. Het   kind   riep   dat   het   honger   had.

        the-NEUT   child   cried out   that-CONJ   it-N   hunger   had.

        'The child cried out that it was hungry.'

However, when a semantic epicene noun is of common formal gender, it cannot choose neuter pronoun and it probably will result in a default choice of the male pronoun (Audring, 2009). For example with the common noun *advocaat* 'lawyer', it is semantically epicene and cannot select the neuter pronoun:

(7) a. De   advocaat   zei   dat   hij   mij   geloofde.

        the-COM   lawyer   said   that-CONJ   he-M   me   believed.

        'The lawyer said that he believed me.'

    b.* De   advocaat   zei   dat   het   mij   geloofde.

        the-COM   lawyer   said   that-CONJ   it-N   me   believed.

        'The lawyer said that it believed me.'

The combination of the two factors 'Syntactic Agreement' and 'Semantic Agreement can then also explain the example in sentence (1), repeated here as (8), where a syntactic neuter noun but semantic female noun is referred to with a feminine pronoun:

(8) Het   meisje   riep   dat   ze   honger   had.

     the-NEUT   girl-DIM   cried out   that-CONJ   she-F   hunger   had.

     'The little girl cried out that she was hungry.'

This naturally works in a similar manner if the syntactic neuter noun has semantic masculine gender; it would select the masculine pronoun gender. As shown in sentences (7)a and (7)b, even though a syntactic common noun is semantically epicene, it does not allow for the neuter pronoun. This goes for all syntactic common nouns no matter which semantic gender it selects:

(9)	a.	De	jongen	riep	dat	hij	honger	had.
		the-COM	boy	cried out	that-CONJ	he-M	hunger	had.

                    'The boy cried out that he was hungry.'

	b.*	De	jongen	riep	dat	het	honger	had.
		the-COM	boy	cried out	that-CONJ	it-N	hunger	had.

                    'The boy cried out that it was hungry.'

      The third factor, 'Collective Noun', is rather different from the other two factors in Dutch and also significantly different from the factors that are involved in the English pronominal system. As discussed, the English factors are 'Semantic Gender', 'Notional Number', and 'Individuation', while Dutch has the factor 'Syntactic Agreement' and a factor that is similar to English 'Semantic Gender'. Although the Dutch pronominal system in its entirety uses the Hierarchy of Individuation to distinguish its personal pronouns, it does not use them specifically with regard to human antecedents and referents. Neither does Dutch distinguish a singular, plural or neutral reading of the third person singular antecedent in the same way English does. In English both 'Notional Number' and 'Individuation' are key factors in allowing a speaker to choose for the pronoun *they*. So far there has been no factor in Dutch that allows for the plural pronoun *zij (they)*, but within the factor 'Collective Noun' there is one specific situation that does allow for it.

      As seen in the difference between the factors of 'Syntactic Agreement' and 'Semantic Gender' in Dutch, Dutch considers both the overt antecedent and its formal properties within the text or sentence and the referent and its semantic properties. Those two factors usually determine whether the singular pronoun gender is masculine *hij (he)*, feminine *zij (she)* or neuter *het (it)*. There is, however, an exceptional situation when the overt antecedent is a collective term. Then Dutch also allows for the third person plural pronoun *zij (they)* (Haeseryn, Romijn, Geerts, de Rooij & van den Toorn, 1997). The factor 'Collective Noun' and the selection of the plural pronoun *zij (they)* differ in two distinct ways from the English factor 'Notional Number'. Firstly, unlike in English, in Dutch the plural pronoun can only be

selected when the overt antecedent is a collective term, not when it is a quantified noun (Haeseryn et al.). This means that a collective term such as *klas* 'class' or *groep* 'group' can select the plural pronoun, but nouns that are quantified with *ieder* 'every' as in *iedere student* 'every student' cannot:

(10)	a.	De	klas	moet	hun	papier	inleveren.
		the-COM	class	must (has to)	their	paper	hand in.
		'The class has to hand in their paper.'					
	b.*	Iedere	student	moet	hun	papier	inleveren
		Every	student	must (has to)	their	paper	hand in.
		'Every student has to hand in their paper.'					

Secondly, Haeseryn et al. say that the selection of the plural pronoun is only available to Dutch speakers when they adopt the extra-textual reference to the antecedent, which is known as the referent. Haeseryn et al. claim that the plural reading is only available to Dutch speakers when they use the referent as reference material. When speakers refer inter-textually to the antecedent, which is simply known as the antecedent, the interpretation of speakers and the pronoun remain singular. According to Haeseryn et al. this is due to the overt antecedent being a syntactic singular item, which in an inter-textual reading would prevent a plural reading. This third factor can then simply be named 'Collective Noun'. When speakers refer to collective nouns 'extra-textually' it will allow for this option within the factor and select the plural pronoun. In all 'other' cases the antecedent noun only allows for the singular pronouns.

Although this phenomenon and Heaseryn et al.'s (1997) explanation feel logical, there is no further research to prove their explanation. Increasingly confusing is that an important institution on the Dutch language 'Genootschap Onze Taal' contradicts Heaseryn et al's point about the plural pronoun in reference to collective nouns ("Verwijswoorden: haar, zijn, hem, het, zij, hij", 2015). 'Genootschap Onze Taal' argues that although the plural pronoun is used by some Dutch speakers in reference to collective terms, this is grammatically incorrect and speakers should refer to collective terms according to their formal properties with the singular pronouns. Nonetheless, there are two reasons to not do away with Heaseryn et al.'s explanation. Firstly, this is not a matter of what is right or wrong based on prescriptive grammar rules, but it is a description of the choices that speakers tend to make instead. Secondly, even 'Genootschap Onze Taal' recommends Heaseryn et al's work as the most

authoritative and complete work on Dutch grammar ("Nederlandse gramaticaboeken", 2015). This all seems to be in favour of adhering to Heaseryn et al.'s category of 'Collective Noun'.

Table 2 represents the factors that Audring (2009, 2013) and Haeseryn et al. (1997) provide for the choice of Dutch speakers when deciding on which pronouns to use. Unlike in English, the factors do not suggest the likelihood of one of the singular pronouns or one of the plural pronouns. The formal factor 'Syntactic Agreement' functions as a constraint against the neuter pronoun when the overt antecedent is a common gender noun, while neuter gender nouns can take all pronouns. This is represented as a strike through neuter pronoun in the syntactic common gender row, and with 'All' in the syntactic neuter gender row indicating all pronoun genders. 'Semantic Gender' determines the preference for a specific semantic gender that takes one of the three pronoun genders: masculine takes *hij (he)*, feminine takes *zij (she)*, and epicene takes *het (it)*. 'Collective Noun' only distinguishes between two categories. On one hand the cases where speakers interpret a collective noun extra-textually and are allowed to reference it with the plural pronoun *zij (they)*. On the other hand all the other antecedents and antecedent nouns that are either not collective terms or interpreted inter-textually, which select only a singular personal pronoun, but with no preference for a pronoun gender (indicated with the abbreviation SP). Although it strives to explain all possible situations as best as possible, the chart can only account for the situations where speakers take into account every factor. For both the factors 'Semantic Gender' and 'Collective Noun' it differs per speaker to what extend they let it influence their pronoun choice (Audring, 2009; Heaseryn, Romijn, Geerts, de Rooij & van den Toorn, 1997). There are still speakers that would rarely allow the masculine and feminine pronoun gender to refer to a syntactic neuter noun, just as there are speakers who would never allow the plural pronoun in reference to a collective term.

Table 2 – The factors determining pronouns in syntactic third person singular situations in Dutch

	Formal factors determined by antecedent, semantic factors determined by referent.							*hij(he), zij(she), het(it), zij (they)*
	Syntactic Agreement		Semantic Gender			Collective Noun		
	Common	Neuter	Male	Female	Epicene	Other	Extra-Textual	
1	+ ~~het(it)~~	-	+ hij(he)	-	-	+ SP	-	*hij(he)*
3	+ ~~het(it)~~	-	+ hij(he)	-	-	-	+ zij (they)	*zij (they)*
4	+ ~~het(it)~~	-	-	+ zij(she)	-	+ SP	-	*zij(she)*
6	+ ~~het(it)~~	-	-	+ zij(she)	-	-	+ zij (they)	*zij (they)*
7	+ ~~het(it)~~	-	-	-	+ het(it)	+ SP	-	*hij(he)*
9	+ ~~het(it)~~	-	-	-	+ het(it)	-	+ zij (they)	*zij (they)*
10	-	+ All	+ hij(he)	-	-	+ SP	-	*hij(he)*
12	-	+ All	+ hij(he)	-	-	-	+ zij (they)	*zij (they)*
13	-	+ All	-	+ zij(she)	-	+ SP	-	*zij(she)*
15	-	+ All	-	+ zij(she)	-	-	+ zij (they)	*zij (they)*
16	-	+ All	-	-	+ het(it)	+ SP	-	*het(it)*
18	-	+ All	-	-	+ het(it)	-	+ zij (they)	*zij (they)*

Taken into account that there is a large degree of speaker variation, this leads to the conclusion that with two exceptions the Dutch will prefer to refer to human referents with the male singular pronoun *hij (he)* or with the female singular pronoun *zij (she)*. The first exception is formal neuter nouns, especially if they are semantically epicene. These can be referred to with the neuter singular pronoun *het (it)*. The second exception is collective nouns when speakers refer to the referent instead of the overt antecedent. These can be referred to with the plural pronoun *zij (they)*. Moreover, standard Dutch speakers will also use the male singular pronoun in reference to most animals, objects and some specific mass nouns. This system differs in the following ways from English:

- Dutch mostly refers to animals, objects and some select mass nouns with the male singular pronoun *hij (he)*. Standard varieties of English refer to almost everything except humans and higher animals with the neuter pronoun *it*.

- Dutch can refer with the neuter pronoun *het (it)* to people, as long as the antecedent is syntactically neuter. Where English can never refer to people with the neuter pronoun *it*.

- Dutch speakers can only use the plural pronoun *zij (they)* in reference to a syntactically third person singular antecedent when it is a collective term, and speakers choose to interpret it extra-textually. English speakers can use the plural pronoun *they* in a variety of settings in reference to a syntactically third person singular antecedent: especially when an antecedent is epicene, plural or number-neutral, and scores low on individuation.

These conclusions and comparisons between the Dutch and English pronominal system can now give us an idea about to what extent Dutch advanced learners of English might accept *singular they*. Compared to the English pronominal system Dutch allows significantly less for the plural pronoun *zij (they)*. It could be that these Dutch advanced learners of English have acquired near native instincts concerning the English pronominal system. However, if they are still basing their pronoun choices to an extent on the Dutch pronominal system, they will probably be less accepting of *singular they* in general. If this is the case, it would be logical for these Dutch speakers to show a lesser acceptance of *singular they* in situations where Dutch would not allow for the plural pronoun and a higher acceptance of *singular they* when Dutch would allow for the plural pronoun. Since the only collective nouns allow for the plural pronoun in Dutch, this is where a difference most likely will be visible.

3. Methodology

The analysis of the English and Dutch pronominal systems can now be used to design an adequate survey to test Dutch advanced speakers of English on their intuitions about *singular they* and compare them to English speakers' intuitions. This survey is designed as a grammar acceptability test that asks both groups of speakers to grade a number of sentences on a scale from 1 (unacceptable) to 7 (acceptable). The judgements of these groups are then used to determine whether Dutch advanced speakers of English are indeed less accepting of *singular they* compared to English speakers. To spread this survey effectively, it was chosen to use Google Forms to design the survey and collect results.

3.1 Participants

Before the participants are asked to grade these sentences, it is necessary to ensure that the groups tested are indeed only English native speakers and Dutch advanced speakers of English. The survey's first question asks for the native language of participants, which filters out any native speakers of other languages. All English native speakers are allowed to go through to the judgement of the sentences, but Dutch native speakers are selected on their education. For this survey someone is considered a Dutch advanced learner of English when they are either enrolled in a University or HBO (applied sciences) degree English or English teacher/translator, or have done such a degree. Although there are a variety of extra-curricular English diploma's and degrees that Dutch secondary school students can acquire, it is more difficult to guarantee a consistent advanced level of English proficiency based on the different criteria for each of these diploma's or degrees. For this reason, these diplomas and degrees were not considered when selecting Dutch advanced speakers of English.

3.2 Materials

The survey design ended up with 63 sentences for the participants to judge from 1 to 7. Because the goal of this survey is to determine to what extent the group of Dutch speakers accept *singular they* in the normal English situation, the choice is made to base the test sentences on the possibilities allowed by the English pronominal system. Newman's (1992, 1998) and Siemund's (2002, 2008) analysis of the English pronominal system in paragraph 2.3 have provided us with 18 theoretical possible situations of referents that select a pronoun (p. 16). Each of these situations is a combination of the factors 'Semantic Gender' (Male, Female, Epicene), 'Notional Number' (Singular, Plural, Neutral) and 'Individuation' (High, Low). However, as also concluded in paragraph 2.3 the practical combination of a number-

neutral and highly individuated referent is impossible (p. 15). This leaves 15 practical situations in which speakers determine which pronoun to use with a referent.

On the other hand, the survey must anticipate on the Dutch pronominal system. The factors determining Dutch are according to Audring (2009, 2013), Haeseryn et al. (1997): 'Syntactic Agreement' (Common, Neuter), 'Semantic Agreement' (Male, Female, Epicene) and 'Collective Noun' (Extra-textual, Other). Modern English does not distinguish between Common and Neuter gender in the way Dutch does, it only has one definite article *the* instead of a common definite article *de (the)* and a neuter definite article *het (the)*. Controlling for this category is therefore not possibly, and it would not be useful for several reasons. The main reason is that Dutch allows for the neuter pronoun *it (het)* to be selected, but in English the neuter pronoun *it* is always incorrect. Secondly, this survey is focused on Dutch speaker on intuition about the usage of *singular they,* on which the factor 'Syntactic Agreement' has no influence in Dutch whatsoever. The survey sentences also do not need to be corrected for their interpretation of 'Semantic Agreement'; this interpretation is the same for Dutch speakers and English speakers.

However, the survey sentences do need to anticipate on the Dutch category 'Collective Noun', since it interferes with the English category 'Notional Number'. As explained in paragraph 2.4 Dutch speakers will not simply look at the perceived number of the referent like English speakers. Instead Dutch speakers only allow for the plural pronoun *zij(they)* when they reference an antecedent that is a collective noun extra-textually, semantically. In all the other cases Dutch speakers select a singular pronoun based on the other two factors 'Syntactic Agreement' and 'Semantic Agreement'. This differs from English, because English speakers allow for all collective nouns and plural or neutral quantified nouns to select the use of *singular they,* collective nouns and plural quantified nouns both being interpreted as having plural number and neutral quantified nouns selecting a number-neutral interpretation. To analyse possible differences in the acceptance of *singular they,* English plural number situations are tested twice: *every*-quantified nouns and collective nouns are both tested as separate situations instead of one mixed situation. The collective nouns are tested separate from the rest of the English plural number situations.

3.3 Procedure

This then leads to 21 practical situations that both groups are tested on, see table 3. The basis of which are the 15 original situations, of which all the 6 plural number situations are doubled to distinguish between collective nouns and plural quantified nouns.

Table 3 – The test situations

	Semantic Gender	Notional Number	Individuation	
1	[+male]	[+singular]	[+high]	
2	[+male]	[+singular]	[+low]	
3	[+male]	[+plural]	[+high]	[+collective noun]
4	[+male]	[+plural]	[+low]	[+collective noun]
5	[+male]	[+plural]	[+high]	[+*every* quantifier]
6	[+male]	[+plural]	[+low]	[+*every* quantifier]
7	[+male]	[+neutral]	[+low]	
8	[+female]	[+singular]	[+high]	
9	[+female]	[+singular]	[+low]	
10	[+female]	[+plural]	[+high]	[+collective noun]
11	[+female]	[+plural]	[+low]	[+collective noun]
12	[+female]	[+plural]	[+high]	[+*every* quantifier]
13	[+female]	[+plural]	[+low]	[+*every* quantifier]
14	[+female]	[+neutral]	[+low]	
15	[+epicene]	[+singular]	[+high]	
16	[+epicene]	[+singular]	[+low]	
17	[+epicene]	[+plural]	[+high]	[+collective noun]
18	[+epicene]	[+plural]	[+low]	[+collective noun]
19	[+epicene]	[+plural]	[+high]	[+*every* quantifier]
20	[+epicene]	[+plural]	[+low]	[+*every* quantifier]
21	[+epicene]	[+neutral]	[+low]	

To test the acceptability of *singular they* for speakers in these 21 situations, these must be made into sentences. However, it is important to keep the participants as neutral as possible towards the test sentences. To do this the introduction towards the survey does not explain what it tests and only asks participants to determine whether they feel it is acceptable to say the sentences nowadays and grade them accordingly from 1 (unacceptable) to 7 (acceptable). Moreover, each situation cannot only be tested on the pronoun *they*. This could lead to repetitive answers and could possible prejudice the participants in the run of the survey. So each situation is worked out into 3 sentences: one uses a masculine pronoun (*he, him, his*) to refer to the antecedent, one uses a female pronoun (*she, her*) to refer to the antecedent and one

uses a plural pronoun (*they, them, their*) to refer to the antecedent. As stated previously, Siemund (2008) has shown that in all versions of English it is grammatically incorrect to refer to a human antecedent with the neuter pronoun *it*. Therefore the participants are not asked to test any sentences with the neuter pronoun. As each test situation needs to be tested with the three different pronouns this leads to the aforementioned 63 sentences (appendix 1). Lastly these sentences were randomized once and provided to all participants in that randomized order, again to avoid repetitiveness.

4. Results

The survey was provided to participants through Google Forms. This allowed participants to do the test at a convenient time and for it to be shared through e-mail and social media. Eventually the survey was closed when both groups of speakers had reached a minimum of 20 participants. 23 English native speakers completed the survey, of which all but one were either in or finished college or university. Most of them were between 21-25 years old, a few between 16-20 and only one between 26-30. The group of Dutch advanced speakers was larger by one with 24 participants, of which all but one are still a student in a university or HBO. Again most participants were between 21-25 years old, a few were between 16-20, two between 26-30 and one between 31-35. This means that for both groups of speakers it must be noted that they mostly represent young people and students.

To analyse the acceptance of *singular they* based on the 63 test sentences, the most crucial results are the acceptance of the 21 sentences that contained the plural pronoun in the forms *they, them* or *their.* The results for each of these sentences with the plural pronoun is given in table 4, on p. 30. The scores of the sentences that were tested with the masculine pronouns *he, him* or *his*, and the feminine pronouns *she* or *her* are sporadically used to compare to the results of the acceptance of the plural pronouns, but not analysed on their own. This would distract from the main aim of this research, but a complete overview of the average acceptance for all the 63 test sentences has been added to the appendices for interested parties.

Because the two groups differ slightly in size, the overall judgement of each group per sentence, situation, and factor is calculated as an average value with two decimals. The values range between 1 and 7 since this is the range participants were provided with in the survey. The survey asked the participants to use this range to differentiate between unacceptable, 1, and acceptable, 7. Generally speaking this means that an average between 1 and 3 can be understood to mean that a group has judged a sentence unacceptable and thus ungrammatical, while an average between 5 and 7 means that a group has judged a sentence acceptable and thus grammatical. Similarly an average between 3 and 5 shows that a group has judged a sentence as ambiguous, neither severely unacceptable nor truly acceptable. Also given for each test situation are the differences between the level of acceptance, or rejection between the two groups. A positive value means that English speakers showed a higher acceptance for *they, them,* or *their* in those situations then Dutch speakers, and a negative value means the Dutch showed a higher acceptance for *they, them*, or *their*.

Table 4 – Results per test situation and an overall acceptance of the plural pronoun

| Test situation				English	Dutch	Difference
1 [+male]	[+singular]	[+high]		1.61	1.96	-0.35
2 [+male]	[+singular]	[+low]		3.39	2.83	0.56
3 [+male]	[+plural]	[+high]	[+collective noun]	5.43	4.75	0.68
4 [+male]	[+plural]	[+low]	[+collective noun]	4.43	6.17	-1.74
5 [+male]	[+plural]	[+high]	[+*every* quantifier]	5.74	4.88	0.86
6 [+male]	[+plural]	[+low]	[+*every* quantifier]	5.65	5.46	0.19
7 [+male]	[+neutral]	[+low]		5.22	4.13	1.09
8 [+female]	[+singular]	[+high]		2.22	2.42	-0.20
9 [+female]	[+singular]	[+low]		3.35	2.00	1.35
10 [+female]	[+plural]	[+high]	[+collective noun]	6.30	5.92	0.38
11 [+female]	[+plural]	[+low]	[+collective noun]	6.04	6.33	-0.29
12 [+female]	[+plural]	[+high]	[+*every* quantifier]	6.61	5.33	1.28
13 [+female]	[+plural]	[+low]	[+*every* quantifier]	5.65	4.79	0.86
14 [+female]	[+neutral]	[+low]		5.39	4.21	1.18
15 [+epicene]	[+singular]	[+high]		5.09	3.29	1.80
16 [+epicene]	[+singular]	[+low]		6.74	6.21	0.53
17 [+epicene]	[+plural]	[+high]	[+collective noun]	6.26	6.33	-0.07
18 [+epicene]	[+plural]	[+low]	[+collective noun]	6.74	6.29	0.45
19 [+epicene]	[+plural]	[+high]	[+*every* quantifier]	6.78	6.00	0.78
20 [+epicene]	[+plural]	[+low]	[+*every* quantifier]	6.78	6.50	0.28
21 [+epicene]	[+neutral]	[+low]		4.22	4.71	-0.49
Overall acceptance of the plural pronoun				5.22	4.79	0.43

Table 4 is mostly useful to compare the individual test situations and their acceptance. However, it provides a preliminary result which shows that overall English native speakers accept the use of *they* with an average of 5.22, while Dutch advanced speakers are more ambivalent in their acceptance of *they* with an average of 4.79. To draw any further conclusions about the differences in acceptance of the plural pronoun between English and Dutch speakers, two things need to be analysed. First, it is important to see whether the results for both groups of speakers adhere to the factors that Newman (1992, 1998) described, and if these factors show a different acceptance pattern between English and Dutch speakers.

Second, the analysis of the Dutch pronominal system has showed that Dutch allows for the plural pronoun in reference to collective terms but not in reference to *every* quantified antecedents. The survey has tested these situation separately and this now allows us to see whether there are differences in acceptance for these variables.

4.1 Newman's factors

It is now possible to see whether Newman's (1992, 1998) factors for acceptance of the plural pronoun *they* in English hold up by comparing the total acceptance for each of the factors. His first factor 'Semantic Gender' concluded that the plural pronoun would be more accepted, at least by English speakers, when it was epicene. Figure 1 shows that this is indeed the case. Although, both English speakers and Dutch speakers do not reject the use of the plural pronoun completely for any of the semantic genders, they both show a much higher acceptance of *they* when used in reference to epicene referents.

Figure 1 – Acceptance of the plural pronoun for the factor 'Semantic Gender'
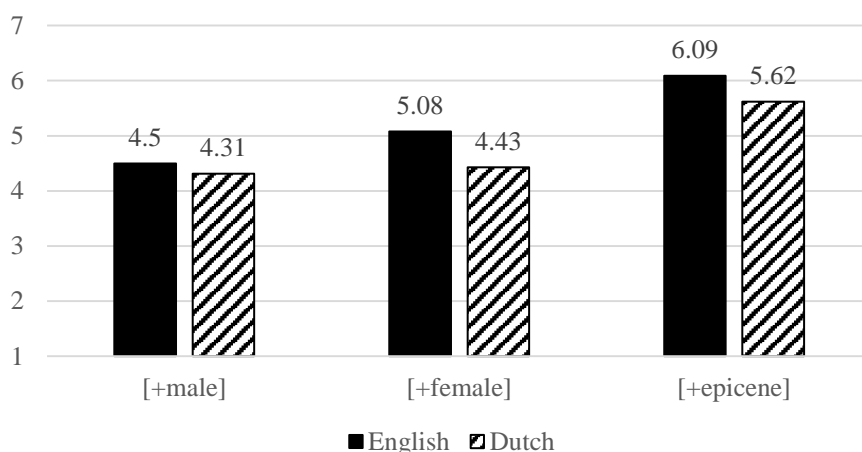
The results also confirm that Newman's (1992, 1998) second factor, 'Notional Number', is important for the selection of the plural pronoun, as shown in figure 2. Both speaker groups score low on the acceptance of *they* when the antecedent is clearly marked as a singular being, although overall they do not completely reject its use in these instances. Both sets of speakers show a high acceptance of *they* when antecedents are plural, which are not yet differentiated between the collective terms and the *every* quantified antecedents. Newman had indicated that number-neutral situations were more ambiguous, as the eventual pronoun choice in these cases is dependent on the other two factor. Still he argued that number-neutral situations have a slight preference for the plural pronoun. The scores for all the number-

neutral sentences seem to support this. The plural pronoun is more accepted for number-neutral situations than for singular antecedents, but less than for plural situations.

Figure 2 – Acceptance of the plural pronoun for the factor 'Notional Number'
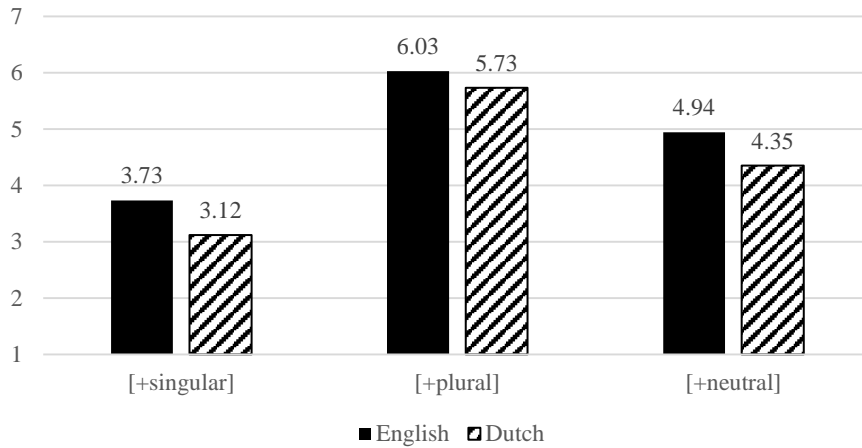
Newman's (1992, 1998) factor 'Individuation' is not confirmed like the other two factors. According to Newman a low individuated antecedent would select the plural pronoun over the singular pronouns. This would mean that low individuated sentences should show a higher acceptance of *they* than for the high individuated sentences. However, as shown in figure 3, the difference in acceptance between high and low individuated sentences is small for English speakers. The Dutch speakers show a greater difference in acceptance for the high and low individuated sentences.
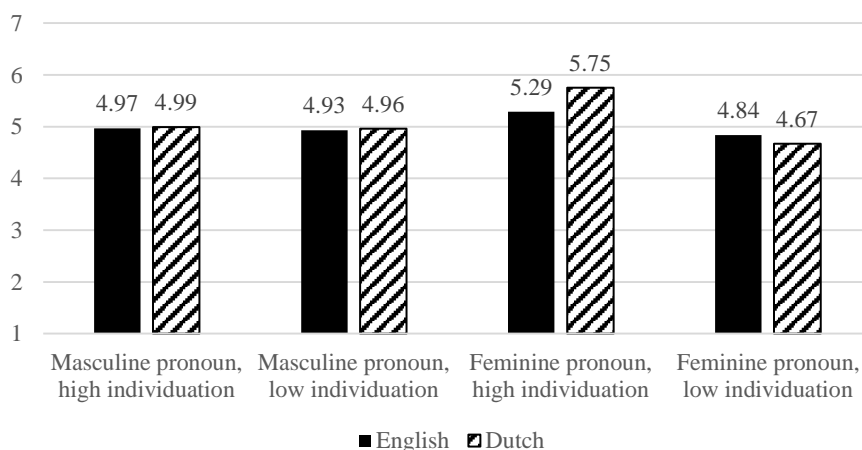
Figure 3 – Acceptance of the plural pronoun for the factor 'Individuation'
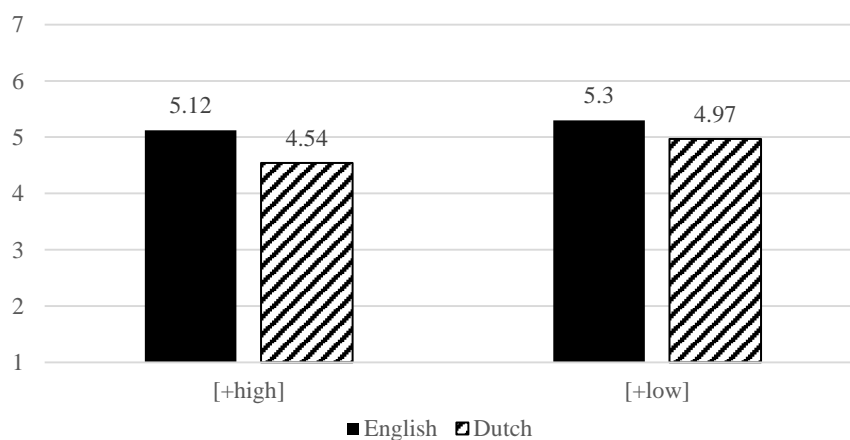
Since there is a small difference present in the acceptance, it would be too simplistic to conclude that 'Individuation' is not a factor in the pronoun choice for human third person

singular antecedents. A more thorough analysis of the acceptance patterns for 'Individuation' for the singular pronouns is necessary. Newman's explanation of 'Individuation' argues that the singular pronouns would be more accepted for high individuated antecedents than for low individuated antecedents. Figure 4 compares the different acceptance of the masculine and feminine pronouns for 'Individuation' with respect to the corresponding semantic gender. This is done to avoid that rejection because of semantic gender mismatch interferes with the results on individuation. Only the acceptance pattern of the feminine pronoun seems to behave as Newman predicts with respect to 'Individuation', both sets of speakers show a higher acceptance of the feminine pronoun when the antecedent is highly individuated. The acceptance pattern of the masculine pronoun shows a negligible difference for both sets of speakers, it is even smaller than the difference in acceptance for the plural pronoun.

Figure 4 – Acceptance of the singular pronouns for the factor 'Individuation'

Moreover, in figures 1, 2 and 3 it can be observed that in line with the overall acceptance of the plural pronoun by Dutch speakers, Dutch speakers accept the plural pronoun less than English speakers in each factor. Dutch speakers seem to follow the factors that Newman (1992, 1998) describes for English: Dutch speakers show a higher acceptance of the plural pronoun when the antecedent has semantic epicene gender, and when the antecedent is plural. This pattern also extends to the acceptance for high and low individuated sentences: English speakers show a slightly higher acceptance of the plural pronoun for low individuated sentences and Dutch speakers show a higher acceptance of plural pronoun for low individuated sentences.

The results clearly confirm Newman's (1992, 1998) first two factors 'Semantic Gender' and 'Notional Number'. The results for the factor 'Individuation' do not yield a

strong confirmation or rejection. Both sets of speakers adhere to these factors in their acceptance of the plural pronoun, but in all cases Dutch speakers show less acceptance for the plural pronoun than English speakers.

4.2 Plural situations

Next to analysing whether Dutch speakers follow the English pronominal system, it is also important to see if Dutch speakers show different acceptance based on the Dutch pronominal system. The analyses of the Dutch pronominal system by Audring (2009, 2013) and the description by Heaseryn et al.'s (1997) suggest that in Dutch speakers can only refer to a third person singular antecedent with the plural pronoun if this is a collective noun and if the speaker refers to it extra-textually. Therefore two types of plural-number sentences were used in the survey, as to be able to see if this has influence on the acceptance of the plural pronoun by Dutch advanced speakers of English. The first type has a plural-number antecedent as a collective noun, and the second type has a plural-number antecedent with an *every* quantifier.

Figure 5 shows that Dutch speakers of English indeed show a higher acceptance for the plural pronoun in reference to plural-number antecedents when these are collective terms. Dutch speakers show a higher acceptance for *they* when the antecedents are collective terms (5.97) than when the antecedents have an *every* quantifier (5.49). This is in contrast with English speakers that actually show a lower acceptance of the plural pronoun in reference to collective terms than Dutch speakers, but show a very high acceptance of *they* in reference to antecedents with an *every* quantifier.

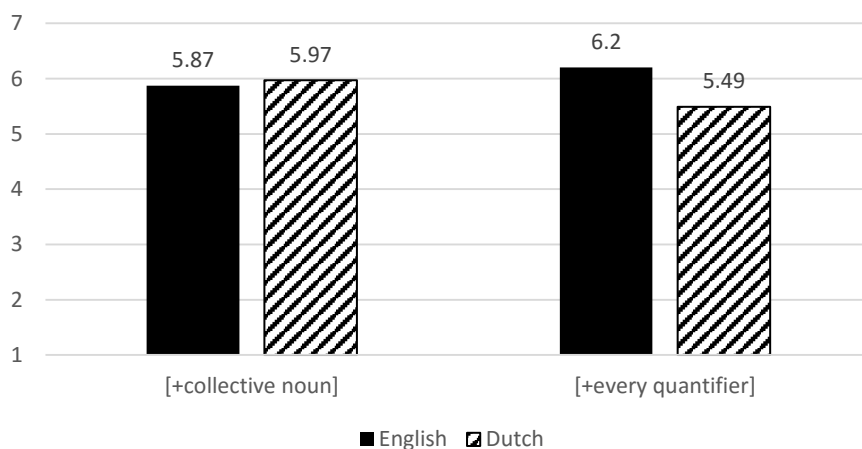Figure 5 – Acceptance of the plural pronoun in plural situations

Table 5 shows the more detailed acceptance patterns for the plural pronoun in the same situations. It also shows the total acceptance for the plural pronoun per variable. On the right hand side the overall acceptance per 'Individuation' variable is calculated. In the bottom row the overall acceptance per 'Semantic Gender' variable is calculated.

Table 5 – Acceptance of the plural pronoun in plural situations

[+plural]		[+male]		[+female]		[+epicene]		Overall acceptance	
		English	Dutch	English	Dutch	English	Dutch	English	Dutch
[+high]	[+collective noun]	5.43	4.75	6.30	5.92	6.26	6.33	6.00	5.67
[+low]	[+collective noun]	4.43	6.17	6.04	6.33	6.74	6.29	5.74	6.25
[+high]	[+*every* quantifier]	5.74	4.88	6.61	5.33	6.78	6.00	6.38	5.40
[+low]	[+*every* quantifier]	5.65	5.46	5.65	4.79	6.78	6.50	6.03	5.58
Overall acceptance		5.31	5.32	6.15	5.59	6.64	6.28		

5. Discussion

The overall results for the acceptance of the plural pronoun confirm the hypothesis that Dutch advanced speakers of English are generally less willing to accept the use of *singular they* than English native speakers. This main conclusion is supported by the results in figures 1, 2 and 3 (p. 31-32). The group of Dutch speakers show less overall acceptance for *singular they* for all Newman's (1992, 1998) factors, but they do show a similar reaction pattern as English native speakers to each of these factors. This leads to a contradictory idea. On one hand the results confirm that Dutch speakers are less accepting of *singular they*, while on the other hand their acceptance pattern mirrors the acceptance pattern of English native speakers. This could be a sign that the advanced level of English proficiency of this set of Dutch speakers allows them to recognize situations that would be grammatical for English native speakers and react accordingly, but that these Dutch speakers are still held back by the ungrammaticality of the plural pronoun in similar situations in Dutch.

5.1 Newman's factors

First it is important to discuss Newman's (1992, 1998) factors more extensively. Figure 1 and 2 (p. 31-32) show that Newman's factors 'Semantic Gender' and 'Notional Number' indeed play a vital role in the acceptance of *singular they* for English native speakers. The results confirm that English native speakers are much more willing to accept *they* when the antecedent is epicene, and when the antecedent is plural. Dutch speakers follow suit and mirror this pattern completely, albeit with a lower general acceptance of *singular they.*

Newman (1992, 1998) indicated that within the factor 'Notional Number' number-neutral situations would select the use of the plural pronoun, but that in these situations the acceptance of the pronoun would be largely determined by the semantic gender of the antecedent. In general figure 2 (p. 32) shows that number-neutral situations get a higher acceptance for *singular they* than in singular situations, but a lower acceptance than in plural situations. Table 6 compares the acceptance of *singular they* for the number-neutral situations. Since number-neutrality cannot be combined with high individuation, only low individuated, number-neutral antecedents were tested.

Table 6 - Acceptance of the plural pronoun in number-neutral situations

	[+male]		[+female]		[+epicene]		Overall Acceptance	
[+neutral]	English	Dutch	English	Dutch	English	Dutch	English	Dutch
[+low]	5.22	4.13	5.39	4.21	4.22	4.71	4.94	4.35

Newman's (1992, 1998) and Siemund's (2002, 2008) analyses suggested that number-neutrality would allow for the pronoun *they*. The test sentences with male and female antecedents in these cases reflect this. English speakers judge the use of *they* reasonably acceptable, while Dutch speakers seem to be more hesitant with acceptance scores in the middle of the 1-7 range. Contrary to expectations, *they* in reference to a semantic epicene gender antecedent is not judged as very acceptable by both English speakers and Dutch speakers. Newman's analysis predicted that semantic epicene gender in combination with number-neutrality and low individuation would indubitably allow for the use of *singular they*, like in (11).

(11) If anyone saw my keys, can they tell me?

This is even more intriguing, since Dutch speakers seem to accept this sentence more than the other two sentences and more than English speakers. So Dutch speakers do follow the line of expectation here, but English speakers do not. Two explanations for the unexpected results of the English speakers spring to mind, when considering the used test sentence (11). Firstly, both sets of speakers, and especially English native speakers, could have found it questionable that in this sentence the pronoun *they* could also refer to the inanimate but plural keys. This could cause a referencing problem. Another issue could be that English speakers would have preferred the modal auxiliary *could* instead of *can*. Yet this does not explain why Dutch advanced learners of English seem to not be bothered by these, or other, problems that the sentence causes for English speakers.

The results for the factor 'Individuation' triggered a lot of questions. Newman (1992, 1998) argued that low individuation of a referent would allow for the use of *singular they*, while high individuated sentences would prefer the use of the singular pronouns. However, figures 3 and 4 (p. 32-33) do not convincingly validate this. English speakers only show a slight preference for the plural pronoun in low individuated sentences, and both sets of speakers show a negligible difference in acceptance for the masculine pronoun in the male high and low individuated sentences. On the other hand, Dutch speakers show a distinct higher preference for the plural pronoun in low individuated sentences, and both sets of speakers show a significantly higher preference for the feminine pronoun in female high individuated sentences. This variation makes it quite impossible to be certain whether 'Individuation' plays a role in the pronoun choice of speakers in reference to human antecedents at this point in time.

Siemund (2002, 2008) showed that the Hierarchy of Individuation is rather like a scale where a referent is placed on. It is indeed very difficult to test such a property in a binary divide, if it can be tested at all in such a survey. There is no clear answer to this problem within the results of this research. Further research into *singular they* might find a way to get more conclusive results about the importance of the factor 'Individuation' for pronoun choice in reference to human antecedents. Whatever such research would conclude, Siemund's analysis that 'Individuation' is important for pronoun choice in English in general is not contested by the current results.

5.2 Plural situations

The overall conclusion seems to be that Dutch speakers accept the use of *singular they* less but in accordance with the English acceptance patterns. However, to see if Dutch speakers indeed follow the English acceptance patterns completely the plural sentences were tested with two variables. Heaseryn et al. (1997) argued that Dutch speakers can only accept the plural pronoun *zij (they)* in Dutch in extra-textual reference to a collective noun. Since Newman's (1992, 1998) plural number factor included both collective nouns and *every* quantified nouns or pronouns, these needed to be tested separately. Table 5 and figure 5, repeated below and on the next page as respectively table 7 and figure 6, show the results for the acceptance of the plural pronoun in these separate plural situations. For English speakers this differentiation should not matter. But if Dutch speakers still judge the pronominal system in English based on the Dutch pronominal system, this should show up in these sentences.
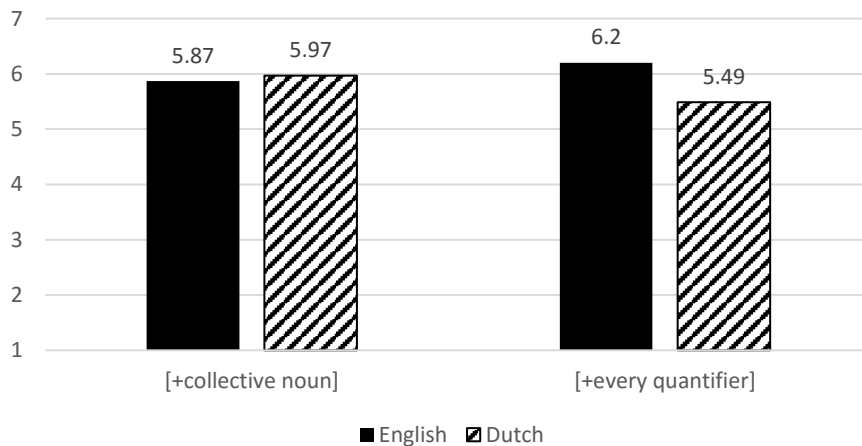
Table 7 – Acceptance of the plural pronoun in plural situations

[+plural]		[+male]		[+female]		[+epicene]		Overall acceptance	
		English	Dutch	English	Dutch	English	Dutch	English	Dutch
[+high]	[+collective noun]	5.43	4.75	6.30	5.92	6.26	6.33	6.00	5.67
[+low]	[+collective noun]	4.43	6.17	6.04	6.33	6.74	6.29	5.74	6.25
[+high]	[+*every* quantifier]	5.74	4.88	6.61	5.33	6.78	6.00	6.38	5.40
[+low]	[+*every* quantifier]	5.65	5.46	5.65	4.79	6.78	6.50	6.03	5.58
Overall acceptance		5.31	5.32	6.15	5.59	6.64	6.28		

In general terms, it can be concluded that, based on the results in table 5, both groups of speakers show the highest acceptance of *they* in reference to semantically epicene

antecedents, and the lowest in reference to semantically male antecedents. This pattern is in line with the overall pattern for the 'Semantic Gender' category as shown in figure 1 (p. 31). More interestingly, figure 5 shows a distinct higher acceptance by Dutch speakers of the plural pronoun in reference to collective nouns over *every* quantified antecedents.

Figure 6 – Acceptance of the plural pronoun in plural situations

This then establishes that indeed Dutch speakers still show acceptance patterns of the plural pronoun in English according to the Dutch system, which is supported with the difference in the acceptance of different situations by English and Dutch speakers. As seen in the discussion about Newman's (1992, 1998) factors, Dutch speakers in general mirrored the acceptance of English speakers, but just scored lower in general. In the case of plurals this seemed to be true too. However, as now witnessed in figure 5, Dutch speakers show a higher acceptance than English speakers for plural sentences with collective nouns, and show a severely lower acceptance than English speakers for plural sentence with *every* quantifiers. This indicates that Dutch speakers still distinguish very much between these two variables when it concerns the acceptance of the plural pronoun.

5.3 Deviating results

Almost all significant differences have been discussed so far, they have helped to gather an understanding of the general pattern that can be found in the acceptance of the plural pronoun by both English and Dutch speakers. However, there is one sentence that shows a remarkable difference in acceptance by English and Dutch speakers which has not yet come up. It is test situation 15 as presented in table 4 (p. 30). The antecedent in the tested sentence (12) is semantically epicene and singular and highly individuated.

(12) Your teacher is very nice, but they need to explain maths better.

English speakers accepted this sentence (5.09), but Dutch speakers were very hesitant about it and nearly rejected it (3.29). The survey did not ask any specific questions about gender bias towards the antecedents, nor did the survey test Dutch speakers on Dutch equivalent sentences of the English sentences. However, Newman (1998) already realised that some essentially gender-neutral nouns can have a gender bias because of what he calls "sex stereotyping" (Newman, 1998, p. 361). He tried to determine if sex stereotyping had any influence on the preference for male pronouns in his own research. But in the case of *teacher* as an antecedent, it could be that Dutch speakers have a female gender bias. Teacher has become a predominantly female profession all over the world. On top of that the most common words for *teacher* in Dutch would be *lerares (female teacher)* or *leraar (male teacher)*. The gender neutral expression *docent (neutral teacher)* is more formal. This theory seems a satisfactory explanation for the deviating results for this test situation, however it cannot be confirmed since it was not used as an antecedent in any of the other test sentences nor were any tests done to investigate such gender bias.

What the discussion about sentence (12) already indicates is that these results do not account for any possible effect of the social background of the participants of the survey. Over the last few years, there has been increasingly called for a re-evaluation of how pronouns are used with respect to the LGBT-community. Within the LGBT-community, there is an increasing number of transgender people that do not identify as belonging to the male or female gender, but as gender-fluid or non-binary (Chak, 2015; Marsh, 2016). Some of these people have asked their surroundings and stated in the media that they would prefer if people used gender-neutral pronouns when talking to or about them. At least some of the respondents in the survey were aware of the discussions around this and chose to leave a comment at the end of survey regarding this subject. Of the 9 comments people left, 4 indeed asked about assumed gender roles and gender-neutrality, all the comments have been added in appendix 2. To what extend this has influenced the responses is unknown. Some responses indicated that they did not fill out the survey with gender bias in mind, while others only asked about it. Future research should be aware of this increasing trend, especially if the research is based on responses rather than corpus data.

6. Conclusion

In summary, the English pronominal system and the phenomenon *singular they* have been explained by Newman (1992, 1998) and Siemund (2002, 2008) through three factors that determine the choice of pronoun for English native speakers: 'Semantic Gender', 'Notional Number' and 'Individuation'. This paper focussed on the choice of pronoun when referencing a syntactically third person singular antecedent. The results have clearly confirmed that 'Semantic Gender' and 'Notional Number' are indeed crucial factors for English native speakers when choosing a pronoun. This means that English native speakers are much more likely to use *singular they*, the plural pronoun in reference to a syntactically third person singular antecedent, if the antecedent is semantically epicene and plural. The importance of the factor 'Individuation' is not firmly proven by the results in this paper. There is no distinct pattern in the results of English native speakers, and the differences in the results are mostly too small to say anything substantial about them. However, since there seems to be a slight difference in the results which favour Newman's theory, it is worth further exploring this factor in future research. Moreover, these results only apply to the importance of the factor 'Individuation' with respect to human antecedents. Siemund's research indicated that the Hierarchy of Individuation is necessary to explain pronoun choices with respect to all antecedent nouns in English. As this has not been tested with this research, it stands to reason that this should still be considered valid.

In a similar fashion, Audring (2009, 2013) and Heaseryn et al. (1997) provided an analysis of the Dutch pronominal system. Dutch native speakers determine their pronouns based on both syntactic and semantic properties of the antecedent, which also leads to three factors determining pronoun choice: 'Syntactic Gender', 'Semantic Gender' and 'Collective Noun'. In this analysis it became clear that there were three major differences between the English and Dutch pronominal system. First, Dutch speakers refer to animals, objects and some mass nouns with the masculine pronoun *hij (he)*, while English speakers refer to these with the neuter pronoun *it*. Second, Dutch speakers can refer to people with the neuter pronoun *het (it)*, while this is impossible in English. Third and most importantly, Dutch speakers can only refer to a syntactically third person singular human antecedent with the plural pronoun *zij (they)*, if it is a collective noun that the speaker interprets semantically. On the other hand English speakers can do this in a variety of settings depending on the factors governing the English pronominal system. Future research on the Dutch pronominal system might attempt to further confirm and analyse the different factors described. Audring's research focussed on the matches and mismatches between the syntactic and semantic genders

in Dutch and did not look at the plural pronoun in reference to syntactically singular antecedents. Moreover, Heaseryn et al's work has a distinct descriptive nature and does not provide much insight into the mechanisms behind the factor 'Collective Noun'.

The test results have shown that Dutch advanced speakers of English are less inclined to accept *singular they*. However, in general, Dutch speakers adhere to the same factors that English speakers use for pronoun choice. These Dutch advanced learners of English thus seem to have learned how the English pronominal system works, and seem to have started using it. But they are not yet completely on board with the use of a plural pronoun in reference to syntactically singular human antecedents. That this is influenced by the Dutch pronominal system is shown in the difference between sentences with collective noun antecedents and *every* quantified antecedents. Dutch speakers are substantially more accepting of the plural pronoun in reference to collective nouns than in reference to *every* quantified antecedents. This pattern follows the Dutch pronominal system, and thus shows that the Dutch factors still influence the pronoun choice of these Dutch advanced learners of English with respect to English sentences. This can only be concluded about the acceptance of *singular they* by Dutch speakers. Further analysis of the current data is needed to show if this goes for all human antecedents, and additional research is needed to make any conclusions about other antecedents (animals, objects and mass nouns). This paper then concludes that Dutch advanced speakers of English show an acceptance pattern for *singular they* in accordance with the English pronominal system, but that this is not yet native-like behaviour since there are clear signs that the Dutch pronominal system still influences their choices.

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Verwijswoorden: haar, zijn, hem, het, zij, hij. (2015, September 21). *Genootschap Onze Taal*.
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Appendix 1: Test Sentences and average acceptance per test group

Test Situation	Test Pronoun	Sentence	Average acceptance	
			English	Dutch
1	he	When my grandfather visits, he gives us a present.	6,22	6,00
1	her	Your brother bites her own nails.	1,26	1,25
1	their	Dad fell of the doorstep and broke their wrist.	1,61	1,96
2	his	A father likes to play with his children.	6,74	6,83
2	her	A widower seldom forgets her partner.	3,83	2,96
2	they	A guy just walked in and said they wanted to see the manager.	3,39	2,83
3	his	The gentlemen's club is raising money for his golf court.	2,17	2,54
3	her	The Boy scout group forgot her tents in the woods last week.	1,48	1,58
3	their	The male choir is going to give their last concert.	5,43	4,75
4	his	A boy band has another number one song about his feelings	1,48	1,92
4	her	A men's rugby team has booked the pitch for her training every night this week.	1,48	1,67
4	they	A group of guys is walking around as if they own the place.	4,43	6,17
5	he	Every single man on the block thinks that he is a real Casanova.	6,52	6,42
5	her	Every guy in my class started to grow her hair long.	1,57	1,17
5	their	It seemed that every husband in town forgot to get their wife a valentine's present.	5,74	4,88
6	he	Every policeman says that he loves being in law enforcement.	5,52	5,04
6	her	Every king has her own household.	1,43	1,29
6	they	Every man is the same; they will always love money more.	5,65	5,46
7	his	Any monk has to stay true to his vow of celibacy.	5,96	6,04
7	her	The typical groom wants to marry her wife.	1,96	1,38
7	their	The typical boy will ask their mother for candy twice a day.	5,22	4,13
8	she	My grandmother said she would call today.	6,83	6,88
8	their	My sister got a car for their birthday.	2,22	2,42
8	his	My mother left his own purse in the restaurant.	1,35	1,33
9	her	A lady in the back let her bag drop.	4,91	4,96
9	his	A queen is only the head of his government in title, not in practice.	1,52	1,54
9	their	Outside, a girl is singing in their high-pitched voice	3,35	2,00
10	her	The feminist party has given her opinion.	2,48	3,67
10	his	The women's football team won his first match.	1,39	1,46
10	their	The panel of mothers made their decision about the new playground.	6,30	5,92
11	her	A female choir practices here in the weeks before her performance	1,65	2,23

11	his	A Girl Scout troop was selling his token cookies door to door last week.	1,39	1,67
11	their	A female rock band is giving their last show tonight.	6,04	6,33
12	her	Every bride in this shop wants to find her ideal dress.	6,57	6,71
12	his	Every niece that I have gets dolls and crayons for his birthday.	1,43	1,58
12	they	Every girl in the playground screamed when they saw the worm.	6,61	5,33
13	her	Every actress wants to star in her own movie.	6,35	5,71
13	he	Every stewardess knows he has to treat passengers with respect.	1,78	1,63
13	they	Every waitress hates that they are paid very little and need tips to make ends meet.	5,65	4,79
14	her	Any witch that gets caught can fly away on her broom.	6,43	5,79
14	his	The typical mother-in-law is feared by his son-in-law.	2,13	1,38
14	they	The average widow will only remarry if they are younger than 60.	5,39	4,21
15	he	My neighbour's baby cries so much that he keeps me awake.	6,57	5,79
15	her	The last costumer paid with her credit card.	5,74	5,75
15	they	Your teacher is very nice, but they need to explain maths better.	5,09	3,29
16	his	Someone left his keys on the table after the party.	4,35	5,00
16	her	Some student did not hand in her paper after the exam.	3,61	3,88
16	their	Someone forgot to brush their teeth this morning.	6,74	6,21
17	his	The local police is trying to work on his reputation.	1,78	2,13
17	she	The school board decides who she wants to hire as a new teacher.	1,61	3,46
17	they	The audience forgot that they could get a complementary drink after the show	6,26	6,33
18	their	An expert panel provided their judgement on the legal status of the contract.	6,74	6,29
18	his	An enthusiastic crowd threw his beer at the band.	1,57	1,46
18	her	It seemed that a bunch of tourists had left her trash on the historic landmark.	1,52	1,33
19	their	Every patient in this ward has their own specialized treatment plan.	6,78	6,00
19	his	Every smoker in the pub took his beer and went outside.	4,17	4,46
19	she	Every cyclist in Brighton thinks she does not need a helmet.	3,22	2,38
20	their	Everyone has to take off their shoes in my house.	6,78	6,5
20	his	Every doctor wants the best for his patients.	5,04	4,88
20	her	Every student secretly wants to go back to her own bed.	3,78	2,67
21	they	If anyone saw my keys, can they tell me?	4,22	4,71

| 21 | his | A driver has to look in his side mirrors. | 5,39 | 5,42 |
| 21 | her | Any gymnast can show you the blisters on her hands. | 4,39 | 3,71 |

Appendix 2: Comments left at end of the survey

Comment 1:

It happened to me so I thought I'd tell you, I think there might a spelling mistake in the sentence along the lines dad fell of the doorstep and broke their wrist (think that should be 'off') if not, sorry to bother. Good luck and thanks for filling in my survey, as I am quite sure you did :)

Comment 2:

At least one question (golf court) was interpretable in multiple ways, each giving it a different level of acceptability.

Comment 3:

Hello, thanks for the survey! Was just wondering, when you're asking how acceptable the sentences are, were you asking what was grammatically acceptable to say or how acceptable we think it is to make assumptions based on gender (e.g. assuming all doctors are male and all gymnasts are female)? Or both!

Comment 4:

I wonder if you should make clear whether we should make judgements based on a coreferential reading or not. E.g. The male rugby team put forward her plan. Are we meant to think 'her' refers to the team or some other person not mentioned.
I answered on the strict condition of coreference. Others may not have which might distort your results?
All the best!

Comment 5:

Instructions were unclear but I figured it out.

Comment 6:

The only suggestion I would be careful of if this is a survey on language would be on presumed gender roles in society. Such as doctors being male. 'The doctor washed (his) (her) (their) hands before the operation.'

Comment 7:

Was the aim of this grammar or gender-neutrality?

Comment 8:

The lack of context made the validity of some statements undeterminable. Ex. "Someone didn't brush his teeth" would make sense if a mother was speaking to her son, but it would not make sense if the gender of "someone" was truly unknown.

Comment 9:

Idk tbh it was a bit obvious you are researching pronouns. Also I filled this survey out trying to adhere to cisgender constructions aka "the norm" but I personally feel like "they/them/their" can be used for every person, singular or plural. I mean, I use those for myself since I'm non-binary. Good luck with your research!