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Linguistic character building: The use of accent in the Pixar Animation Studios' animated features (1995-2013)

Master thesis

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November 2014

Acknowledgements

First and foremost I want to thank my supervisor Ljudmila Gabrovšek M.A. for taking the time to supervise my thesis and for all the ways in which she inspired and encouraged me. Secondly, my thanks go to Professor Colin Ewen for taking the time to be my second reader. Special thanks are also due to Matthijs van Lente who as a second coder has been of great help in ensuring the reliability of this research. Last, but certainly not least, I would like to thank my parents whose continuous support means more to me than I can say. I owe a particular debt to my mother, who has been more supportive than anyone could wish for.

Table of contents

Index of tables and figures

1. Introduction

1.1 Overview

Linguistic character building by means of accent in Pixar Animation Studios' feature animation is situated at the core of this thesis. Alongside Walt Disney Animation Studios and DreamWorks Animation SKG, Pixar Animation Studios is one of the most prolific and well-known animation studios and has produced fourteen animated features since the release of its first feature film *Toy Story* in 1994[1]. By investigating the possible correlations between accent and character variables, this study attempts to provide clarity as to whether accent is used for character building by Pixar, and if so, how strong and significant those correlations are. As certain studies have previously investigated the use of accent in other animated productions (e.g. Lippi-Green, 1997; Dobrow & Gidney, 1998; Fabricus et al., 2007; Azad, 2009; Sønnesyn, 2011), the most relevant of which focus on feature films produced by Walt Disney Animation Studios, the possible similarities and differences between Pixar's and Disney's use of accent for the purpose of character building are of particular interest in this study.

1.2 Theoretical background

The literature review chapter investigates the notion of linguistic character building, in particular accent as a tool for building character. As linguistic character building operates largely by making use of language attitudes and stereotypes, the field of language attitudes is explored to give insight into linguistic character building. Relevant theories from the field of language attitudes discussed in this thesis concern the linguistic intergroup bias, the accessibility hypothesis, the social connotations hypothesis and the enforced norm hypothesis. While research on linguistic character building is scarce, a number of studies investigate language use in film and television, both live action and animation (e.g. Lippi-Green, 1997; Marriott, 1997; Dobrow & Gidney, 1998; O'Cassidy, 2005; Fabricus et al., 2007; Azad, 2009; Sønnesyn, 2011). Of most relevance to this thesis are Lippi-Green's (1997) and Sønnesyn's (2011) investigations of Disney's use of dialect and accent. Their results strongly indicate that accent is utilised as a tool for linguistic character building. The variables under investigation are approached from a sociolinguistic vantage point.

[1] Throughout this thesis, films are referred to by title and year of release. For the full details of each film please refer to the filmography.

1.3 Previous research

Research has been conducted on the use of accent in animated film and television, yet there is little research available that investigates the function of accent as a tool for building character in either animated or live action productions (Lippi-Green, 1997; Dobrow & Gidney, 1998; Fabricus, Pretsch, Snowman & Harvey, 2007; Azad, 2009; Sønnesyn, 2011). Instead, studies that have uncovered correlations between accent use and variables such as the motivations of characters have focused on condemning the message language stereotypes communicate to audiences. As such, it remains to be investigated whether there are any strong and significant correlations between accent and character variables.

1.4 Research variables

In order to investigate the ways in which accent can be used for character building, five variables are explored in this thesis: setting of the film, gender of the character, age of the character, nature of the character and size of the role of the character. While a potential correlation between accent and the setting of films could also reveal functions of accent other than character building, the link between the setting of the film and the origin of the characters also makes it relevant for a discussion of linguistic character building. Age and gender are of interest because these variables have proven to be sources of variation in a multitude of sociolinguistic studies. The variables nature of the character and size of the role of the character, while necessarily restricted to fictional works, are no less intriguing, as significant correlations between accent and nature or role size of characters would reveal character building that cannot be founded on linguistic examples from real situations.

1.5 Research questions

The main aim of this study is to explore whether Pixar Animation Studios makes use of accent as a means to build character. The main research question, therefore, is:

1. **Do Pixar animated features make use of accent as a means of building character?**

Another point of interest is whether the various animation studios utilise accent in different ways. For example, Lippi-Green's (1997) study revealed that Disney animation relies strongly on the use of non-native English accents as well as British accents when they create evil characters, and it is of interest whether this is also the case for Pixar animation. Since only the Walt Disney Animation Studios' use of accent has been researched in such a

way as to make the results suitable for a comparison, the following research question was formed:

2. **Are there considerable differences between the use of accent in Pixar animation and the use of accent in Disney animation?**

In order to investigate whether Pixar makes use of accent to build character, it is explored whether accent correlates with character and film variables. As a result, the subsequent five research questions were formulated:

3. **Is there a correlation between the settings of Pixar films and the accents of their characters?**
4. **Is there a correlation between the use of accent in Pixar films and the gender of the characters?**
5. **Is there a correlation between the use of accent in Pixar films and the age of the characters?**
6. **Is there a correlation between the use of accent in Pixar films and the nature of the characters?**
7. **Is there a correlation between the use of accent in Pixar films and the size of the characters' roles?**

These five variables explore whether accent is used to express information about characters linguistically in Pixar feature animation.

1.6 Thesis overview

This introductory chapter is followed by four other chapters: 2. Literature review, 3. Methodology, 4. Results and analysis and 5. Conclusion and discussion. The second chapter introduces the key variable, accent, and the notion of linguistic character building by means of accent. Relevant to linguistic character building is theory regarding language attitudes, which is, therefore, presented in this chapter. In addition, Chapter 2 investigates the studies that have explored the function of language in film or animation and culminates in a discussion of the relevant research variables and corresponding research questions. In the third chapter, the corpus is presented, as are the procedure and tools utilised for the analysis of the corpus. In the fourth chapter, the results of the analysis of the corpus are presented and analysed. Finally, the fifth and final chapter answers the research questions

with reference to the theory discussed in Chapter 2. The fifth chapter concludes with a section on the limitations of the present study and the implications for future research.

2. Literature review

Film and television makers have a wide array of tools at their disposal when they create the characters in their stories. Physical features and certain character traits can be useful in evoking images about the characters, but the character's use of language can be an equally potent tool. A character's vocabulary, syntax, accent and other language features can signify a great deal to viewers. A long tradition exists of using the language of fictional characters as an easy way to convey more about their background or nature. For example, as was already mentioned in 1.5, previous research has shown that villains in Disney animation typically speak with non-native or British, more specifically Received Pronunciation (RP), accents (Lippi-Green, 1997). However, while this tradition of linguistic character building is widespread, sociolinguistic research on character building in fictional works is sparse, and not a great deal of theory has been formed regarding linguistic character building. After the most important variable of this research, namely accent, has been discussed, relevant sociolinguistic theories will therefore be exploreded to provide more insight into the function of accent in animation. This exploration will be followed by a discussion of the studies that concern themselves with the role of language in film and television and the variables relevant to linguistic character building will also be examined. Finally, the research questions of this study will be discussed.

2.1 Accent

There are many ways in which language can be used to build character, some of which are more potent than others. It follows that the potency of language as a tool for building character will largely depend on the particular medium under investigation. While grammatical features and spelling will be most useful in literature, film will be more inclined to draw on features of pronunciation. This thesis will, therefore, restrict itself to Pixar's use of accent, more specifically accents of English.

It is at this point important to highlight the difference between dialect and accent. While accent only includes pronunciation, dialect also includes features that deal with grammar and vocabulary choices (Hughes, Trudgill & Watt, 2005, p. 2). As this thesis investigates the use of accent in Pixar animation, it will restrict itself to pronunciation. While pronunciation seems rather straightforward at first glance, it can be subdivided into three strands: firstly

that of consonant and vowel sounds, secondly that of rhythm and intonation and finally that of voice quality (Esling, 1998, p. 172).

The way a vowel or consonant is pronounced or where the stress is placed in a word or sentence can vary widely from one accent to another, for instance. As a result, the variation between various accents can be used to distinguish them from one another. However, while there is a vast amount of information available about the features of the various accents of English, it is not relevant to this thesis to give detailed descriptions about the features of different accents of English.

While it is not relevant to discuss any of the different varieties of English in great detail, it is important to discuss which types of accents are likely to occur in the corpus more generally. First of all, it is relevant to distinguish between native and non-native accents of English. While there are many non-native accents of English that can be used by Pixar, it is of little relevance to divide these into sub-groups. The various native varieties of English, however, need to be divided into sub-groups. It would be most prudent to base these sub-groups on the likely audience of Pixar features. While Pixar's animated features typically reach audiences all over the globe, most of those viewers will watch Pixar films in their native language. The audience of Pixar's English spoken films are, therefore, likely to be native speakers of English. However, while native speakers of English from various countries will be part of Pixar's audience, it is likely they cater mainly to an American audience, as Pixar is an American company and the United States is by far the most populous country where English is spoken as the main native language. It is, therefore, useful to distinguish between American and other native English varieties. A further distinction needs to be made between RP and other non-American native accents. As many villains are said to speak with RP accents, it is worth investigating whether RP is prone to different forms of character building than other non-American native varieties. Finally, American accents will be subdivided into three groups: General American (GA), regional accents and sociolects. This results in a total number of six accent groups: GA, regional American, social American, RP, other Englishes and non-native Englishes.

2.2 Language attitudes and stereotypes

Linguistic character building relies on the shared attitudes and stereotypes of audiences to communicate information. It is, therefore, relevant to explore theories about language

attitudes and stereotypes. Language attitudes—which can generally be defined as "a learned disposition to think, feel and behave toward a person (or object) in a particular way"—can be deeply ingrained in the public consciousness (Allport, 1958 in Garrett, 2010, p. 19). Even as little as a single phrase can sometimes reveal a speaker's regional or social background, and people can form strong opinions about language varieties and their speakers. Language attitudes are, therefore, often the source of strong stereotypes about language varieties or their speakers. While attitudes and stereotypes are closely related, it is important to be aware of their differences. One notion defines stereotypes as "societally shared beliefs about the characteristics (such as personality traits, behaviors, or personal values) that are perceived to be true of social groups and their members" (Wigboldus, 1998, p. 4). While stereotypes might not always seem connected to language, language does play an important part in their formation. Some academics even go as far as saying that there are no completely non-linguistic stereotypes (Maass & Arcuri, 1998, p. 193).

2.2.1 Attitude and stereotype formation

It needs be noted that, while there is evidence that heritability can have an influence over attitudes and stereotype formation, both stereotypes and attitudes are mostly "sensitive to local conditions and changes in the social milieu" (Tesser, 1993; Giles & Coupland, 1991, p. 42). Thus attitudes about various types of accents can differ widely between communities. For instance, "[i]n Britain the strongest gut reactions are in response to social class and class-related stereotypes, while in the United States they are associated with race and ethnicity" (Milroy & Milroy, 2012, p. 153). This means that while in the UK people stigmatise regional dialects and accents more severely than ethnical ones, in the United States ethnical accents or dialects, such as the sociolect African American Vernacular English or Spanish accented English spoken by Latin American immigrants, are stigmatised more strongly than regional ones (Milroy & Milroy, 2012).

If the formation of attitudes and stereotypes is largely a social construct, it would follow that social needs are, at least partly, the reason for the existence of attitudes and stereotypes. Garrett discusses the need to stereotype on both individual and intergroup levels (2010). He describes the function of stereotyping on an individual level as a means "to bring some order to a complex social world" and on an intergroup level as "enabling us to preserve and enhance favourable distinctions between our own group (ingroup) and

relevant outgroups" (Garrett, 2010, p. 33). This is reflected in language use by the so-called linguistic intergroup bias, a phenomenon based on the hypothesis that positive behaviour is expected of in-group members and negative behaviour is expected from out-group members (Maass & Arcuri, 1996, p. 204; Wigboldus, 1998, p. 11); the linguistic intergroup bias would in turn affect language use. For example, people would tend to produce more abstract language when describing behaviour that goes against expectations (i.e. the desirable behaviour of out-group members or the undesirable behaviour of in-group members) (Maass & Arcuri, 1996; Wigboldus, 1998). The linguistic intergroup bias would, therefore, reflect a wariness of otherness, and this would be particularly likely to stimulate the formation of stereotypes about speakers of foreign languages and speakers with non-native accents.

A similar wariness of otherness can be found in van Bezooijen's (1997) accessibility hypothesis. Van Bezooijen (1997) proposes that language attitudes are directly connected with the amount of exposure to a variety. The hypothesis assumes that people evaluate a variety more positively if they are exposed to it more frequently (1997, pp. 41-42). Less well-known accents would, therefore, likely be accompanied by less positive attitudes. While increased accessibility might well lead to more positive attitudes, there also seems to be evidence that more factors than accessibility are at play. Americans are often said to have a soft spot for speakers with British accents, while they are exposed countless more times to speakers of American English (Garrett, 2010, p. 14). This would strongly suggest that exposure is not the only factor involved in the formation of language attitudes.

An alternative is presented in Giles and Niedzielski's (1998) social connotations hypothesis, which emphasises that evaluations of varieties are based on social conventions (p. 88). People are said to judge whether a variety is aesthetically pleasing based on the social connotations of its speakers (1998, p. 89). In a way, the social connotations hypothesis is quite similar to another hypothesis of interests, the enforced norm hypothesis. This hypothesis claims that attitudes are created by language norms (van Bezooijen, 1997, pp. 41-42). Support for both these hypotheses can be found in the fact that children tend to "like non-standard speech until they spend time in the school system" and pick up the ruling norms and connotations only as they are exposed to them in social contexts (Giles & Niedzielski, 1998, p. 88).

As language norms and the connotations attached to a variety can be of such great influence on the perception of accent, it is useful to briefly discuss some of most dominant ones. Obviously, these norms and connotations vary greatly between speakers of, for instance, American English and, say, British or Australian English. This is reflected in the example given earlier, stating that in Britain regional varieties are the main victims of stigmatisation, while ethnical varieties are the main victims in America (Milroy & Milroy, 2012, p. 153). However, what can be said, at least for American and British English, is that a great deal of emphasis is placed on the "correctness" of Standard English (Chambers, 2009). American and British societies are among those that credit people "with different amounts of intelligence, friendliness and other such virtues according to the way they speak" (Mugglestone, 2003, p. 50). While "standard language [is] an idea of the mind rather than a reality", the perceived differences between Standard English and non-standard English can be of great influence on attitudes about varieties of English (Milroy & Milroy, 2012, p 19). Norms and connotations created by society would, therefore, result in more positive attitudes towards varieties of English that are considered standard. Varieties that are considered non-standard, on the other hand, are likely to evoke more varying attitudes and stereotypes, in much the same way as unfamiliarity with a variety or the perceived differences between in-group and out-group members would.

2.2.2 Language attitudes and stereotypes of individuals and those of the masses

While factors such as otherness, accessibility, societal norms and connotations are important for the formation of attitudes and stereotypes, discussing only these suggest a somewhat too uniform image of attitude and stereotype formation; as was hinted at when the linguistic intergroup bias was discussed, attitudes serve individual needs as well as group needs. Differences between individuals may, therefore, result in different attitudes. Baker (1995) concludes that age, gender, educational environment, language ability, language background and cultural background all contribute to a person's language attitudes. In effect, while attitudes and stereotypes are shared by groups of people to a large extent, attitudes and stereotypes are also highly individual (pp. 41-45).

The differences between the attitudes of the masses and those of the individual therefore pose a problem for mass communicators, and it is unclear how mass communicators deal with this problem. Bell (1991) suggests that mass communicators are "aware of social groups

rather than individuals", thus implying that they cater to a stereotypical image of their audience (p. 90). While the distance between the communicator and his or her audience is much larger in the case of the mass media than in other forms of communication, Bell asserts that despite the unique properties of mass communication "accommodative strategies of convergence and divergence, of shift toward national of local norms, or in relation to actual and stereotypes of audiences are all operative" (Bell, 1991, p. 106). It is, in fact important to remember that without the audiences' approval the mass media could not survive (Bell, 1991, p. 103). Research has revealed that mass communicators accommodate their language to their expected audience; for example, an investigation of the language of New Zealand radio broadcasters has shown that they adapt their language to that of their target audiences (Milroy & Milroy, 2012, p. 24). It is, therefore, quite likely that mass communicators will also adapt the language attitudes they portray in their works to those of their target audience.

2.2.3 The perception of accents used by Pixar

As was discussed in 2.1, Pixar is presumably most aware of their American audience. It therefore follows that if Pixar makes use of existing language attitudes to build character, it is most feasible that they do so by considering common American attitudes and stereotypes. As was established, American society is one that approaches Standard English as the "correct" and "superior" variety (Chambers, 2009). GA would, therefore, be the most neutral variety a character could use, while regional American, social American, non-American native or non-native varieties would provide better tools for linguistic character building. In fact, the linguistic intergroup bias, the accessibility hypothesis, the social connotations hypothesis and the enforced norm hypothesis would all suggest that speakers of regional American, social American, non-American native or non-native varieties of English are more likely to be stigmatized than GA (Maass & Arcuri, 1996; van Bezooijen, 1997; Giles & Niedzielski, 1998; Wigboldus, 1998). While non-American native and non-native English accents would be regarded less positively than GA because of the linguistic intergroup bias and accessibility hypothesis, regional American accents and American sociolects would be more stigmatized due to the social connotations hypothesis and the enforced norm hypothesis. However, it needs to be noted that this might only prove to be a very general pattern. Americans, for example, seem to favour British accents over American accents,

even though according to the linguistic intergroup bias and accessibility hypothesis they ought to prefer GA (Garrett, 2010, p. 14).

The fact that Americans seem to have a preference for British accents can be explained by their lack of social connotations with varieties of British English. Research has shown that familiarity with a variety can greatly influence the attitude about that variety. For example, Giles and Niedzielski (1998) found that dialects which are stigmatized and those that are considered standard in the United Kingdom are both evaluated the same by Canadian audiences, because Canadians did not attach any social judgements to them (p. 92). Similarly, Lippi-Green (1997) acknowledges that American audiences hardly make distinctions between stigmatised British accents and those with more status (p. 98). If Pixar displays American attitudes about non-American accents for character building, this might result in stereotypes that clash with the attitudes of the speakers of those non-American accents.

The potential clash between Pixar's representation of speakers of non-American accents and the evaluation of those accents by their speakers highlights a significant aspect of Pixar's use of accent. Since attitudes and stereotypes are largely the result of social connotations and norms, the producers and directors would need to be aware of the connotations of an accent, if they are to create characters who correspond to those connotations. However, it is unclear whether Pixar as a company or the individual directors and producers are aware of those attitudes and stereotypes, and it is equally unclear whether conscious decisions are made about whether or not to adhere to those stereotypes. Although a request for information about language choice was made to Pixar Animation Studios, the only response came in the form of an automatically generated email stating they do not distribute the information requested. This is not surprising, as Pixar has been part of the Walt Disney Company since 2006, and the Walt Disney Company is particularly notorious for their unwillingness to share information with any outside party (Davis, 2013). It therefore remains unclear whether the attitudes and stereotypes present in Pixar animation are the result of corporate policy, individual preferences of directors and producers or the result of subconscious language attitudes. As a result, patterns throughout Pixar animation are studied without making any claims about the level of awareness or intent of the attitudes and stereotypes presented in Pixar animation. Any mention of Pixar use of accent as a tool

for character development must therefore not be seen as a statement that Pixar necessarily does so consciously.

2.3 Linguistic character building and development

Although the use of language as a tool for building character in film and television is intriguing, only a small number of studies into this field have been undertaken. For example, an analysis of the British war film *In which we serve* (1942) revealed that dialect was used to construct a hierarchical structure among the film's characters (Marriott, 1997, p. 173). Much like the stratification of accent along the continuum of social class, which is found throughout Britain, the higher-ranked characters spoke a more standard form of language, while the lower-ranked characters tended to speak regional dialects (Marriott, 1997).

2.3.1 Linguistic character building in animated television series and films

Of even greater interest to the purpose of this thesis are a handful of studies into the use of accents and dialects in animated television and films. First to investigate the stratification of accents among animated characters seems to have been Lippi-Green (1997). Her 1997 book, *English with an accent,* contains a chapter that explores the use of dialects in Disney animation. Lippi-Green's (1997) stance is that the stereotyped and unrealistic use of accent in children's animation— not exclusively in Disney animation — teaches children how to discriminate based on accent. In order to test this claim, Lippi-Green analysed the use of accent in 24 animated Disney features released between 1938 and 1994. Lippi-Green (1997) did not choose to analyse Disney films because of an expectation that more discriminatory use of accents is present in Disney animation than other types of animation, but merely because of the fact that the Walt Disney Studios was by far the largest producer of animated feature films at the time (p. 86). What her analysis revealed was that correlations existed between characters' accents and variables such as the nature of the character. Characters with British or non-native English accents, for instance, were more likely to be evil than characters who spoke mainstream US English, according to Lippi-Green (1997). Her findings will be further discussed when a comparison is made between Pixar's and Disney's use of accent in Chapter 4.

Since Lippi-Green's (1997) analysis of Disney's animated features, interest in the function of accent and dialect in film and television was shown by a number of linguists and students (e.g. Dobrow & Gidney, 1998; O'Cassidy, 2005; Fabricus et al., 2007; Azad, 2009; Sønnesyn,

2011). Of particular interest to this thesis are those studies that deal specifically with animation. For example, in 1998, Dobrow and Gidney published an article on the use of dialects in children's animated television. Their analysis concluded, in much the same way as Lippi-Green's research did, that "children's animated programming continues to underrepresent people of color and women. Linguistically, gender and ethnicity were marked by use of dialect stereotypes. Notably, villains consistently used non-American accents" (Dobrow & Gidney, 1998, p. 105). Further examples of correlations between character types and accent can be found in several of the aforementioned studies. However, while these studies are relevant and interesting, the majority of them focus on the danger of stereotypical use of accent rather than the function of accents within animated film (Lippi-Green, 1997; Dobrow & Gidney, 1998; O'Cassidy, 2005; Azad, 2009).

Although these studies have without a doubt proved that animated film and television make use of accent in stereotypical ways, the function of accent in fictional works is not discussed. However, while these studies have yielded some significant patterns, the focus on the discriminatory nature of accents in animation provides results which are not particularly suitable for discussing the function of accent in animation. When correlation between accent and variables, such as the nature of characters, is investigated in previous studies, this is most frequently done in order to reveal ways in which accent is used to create stereotypical and discriminatory representations of groups of people. As a result, variables that might prove equally influenced by accent are under-investigated, and instead a great deal of attention is paid to a small number of qualitative examples. For instance, Lippi-Green (1997) discusses the use of French accents by looking at six characters in *The Rescuers* (1977), *The Little Mermaid* (1989) and *Beauty and the Beast* (1991) in great detail.

There are two studies, however, that do investigate the function of accent in animation. The first of these is a qualitative analysis of the use of accent and dialect by three characters in *Shrek* (2001) by Fabricus, Pretsch, Snowman and Harvey (2007). Although Fabricus et al. explore correlations between the use of dialect and character types, their analysis is limited to three characters in one film and thus offers nothing of substance to the discussion of accent use in animation in general. Secondly, and more widely applicable is Sønnesyn's (2011) analysis of the characters in eighteen animated features. However, while Sønnesyn discusses the relationship between accents and characters in detail, no link is made between accent use and character building. Another reason why Sønnesyn's (2011) study of relevance

is because it includes a comparison of results with Lippi-Green's (1997) findings and suggests that patterns have shifted in more recent films. While both Sønnesyn's (2011) and Fabricus et al.'s (2007) studies touch upon the function of accent in animated film, they do not investigate the function of accent as a tool for character building in depth.

2.3.2 Linguistic character building in different studios

It remains ambiguous whether the various animation studios utilise accent to build character in different ways. While Lippi-Green (1997, p. 86) did not anticipate that Disney uses accent differently than other animation studios, there are quite a number of differences between the various studios that might prove to have an effect on the way they utilise accent. Although at first glance the films produced by the main animation studios, Pixar Animation Studios, Walt Disney Animation Studios and DreamWorks Animation SKG, seem largely similar—for example, they contain mainly black and white notions of good and evil and invariably have a happy ending—there are some differences between the productions of these studios that might be relevant here. For example, the types of stories and the types of characters created can be quite different; Disney, for instance, is typically thought of as a studio that produces fairy tales and adapts pre-existing stories, while Pixar has, to date, only turned original stories into film. A further factor that might be of interest is the types of characters created by the different studios. While most animated films contain mainly Caucasian characters, some studios produce films with slightly more varied casts than others. Spiegel (2014) remarks that "Pixar's animators have only created two human characters, over 20 years of feature films, who aren't white". This is not technically true, as there are a number of very marginal characters who are not Caucasian, as well as some characters whose ethnicities are ambiguous. However, Pixar films seem to contain an even larger proportion of Caucasian characters than the films of other main studios. While neither Disney nor DreamWorks comes anywhere near a realistic distribution of different ethnicities, their balance seems marginally less skewed. Disney films have featured heroines and heroes who are Indian, Arabic, Chinese, Native American and African American, and DreamWorks has "featured a host of non-white [voice] actors in its films" (Spiegel, 2014). The later has also recently announced that the heroine of their next animated film, *Home* (to be released), will be African American. The fact that these studios make different choices when it comes

to selecting stories or creating characters might well indicate that the studios will also have different approaches to their characters' language use.

As previous research has not considered the possibility that the various animation studios might use accent to build character in different ways, it needs to be explored whether there are any relevant differences in the way these studios make use of accent. However, as there is no previous comparative research between the use of accent by different animation studios, it is difficult to find data that would give insight into this matter. For instance, research by Dobrow and Gidney (1998) and Azad (2009), while exploring speech of characters from several studios, does not investigate if there are differences between these studios. As it is unclear from their work which characters and accents occur in which films or series, their research is unsuitable for a comparison between studios. On the other hand, Lippi-Green (1997) limited her analysis to Disney films. Her study is, therefore, of more use and can be used to compare the use of accent by different studios. Also of interest is Sønnesyn's (2011) study, which tentatively suggests that over time the way Disney has changed the way it makes use of accent, and, allows, therefore, for a more up to date comparison between Pixar and Disney. However, it is important to note that, while Sønnesyn (2011) states to have investigated only Disney animation, the corpus of this study contains four Pixar productions as well as fourteen Disney films (p. 45). This somewhat clouds Sønnesyn's results, but as it possible Disney's use of accents has changed over time, it is nevertheless important to include Sønnesyn's results.

2.4 Variables of linguistic character building

As discussed in 2.3, previous research does not investigate whether accent is used for character building, but results from those studies suggests nonetheless that accent is used by animation studios to build character. However, it is unclear which variables are likely to correlate with accent. The most obvious source of information about how animation studios make use of accent for character building would logically be found by consulting the animation studios themselves. However, while it would be ideal to know whether Pixar has a policy about language use in their films, no such information is available. As Pixar has proved unwilling to share information about the language choices in their films, it will need to be established experimentally which variables correlate with accent use. It is first important to consider variables that are often found to be sources of variation in more traditional

sociolinguistic studies, in this case age and gender, and investigate if these variables prove to be an equal source of variation in animation. After these more traditional sociolinguistic variables have been discussed, three variables that are restricted to fictional works will be considered.

2.4.1 Gender

Before gender is investigated as a variable, the difference between sex and gender first needs to be discussed. The distinction between sex and gender comes down to a difference in definition; while sex refers solely to one's biological and physiological features, gender refers to a person's social identity (Chambers, 2009, pp. 116-118; Meyerhoff, 2011, p. 212). Since a great deal of Pixar characters are anthropomorphised objects, for example the cars in *Cars* (2006) or the toys in *Toy Story* (1995), it would be impossible to classify them based on biological features they do not possess. As such, gender is the more useful variable when discussing animated characters.

A plethora of sociolinguistic studies have uncovered evidence that the language of men and women differs (Chambers, 2009; Meyerhoff, 2011; Van Herk, 2012). Though these studies might focus on different aspects of male and female speech, their conclusions are largely similar: "women use fewer stigmatized and non-standard variants than do men of the same social group in the same circumstances" (Chambers, 2009, p. 114). As films portray constructed environments rather than real linguistic situations, it cannot automatically be assumed that these linguistic patterns are transferred to film. Sønnsyn (2011), however, revealed that female Disney characters are more likely to speak with GA accents than their male counterparts, who more frequently speak with regional American accents (p. 58). It might, therefore, well be the case that filmmakers are copying, either consciously or subconsciously, the differences between male and female linguistic behaviour in order to create believable characters. To this end, it becomes relevant to investigate whether Pixar creates similar correlations between accent and gender.

2.4.2 Age

Age has been proven to be a source of language variation and, for that reason, is of interest to this thesis. Eckert (1998) describes age as "a person's place at a given time in relation to the social order: a stage, a condition, a place in history" (p. 151). Since age is closely connected to a person's location in the social order, and chronological age does not

always coincide with social and biological development, it is not always suitable to discuss age solely in a chronological way (Eckert, 1998, pp. 154-155). Rather than grouping speakers by their chronological age, speakers can be grouped emically, based on "some shared experience of time" (Eckert, 1998, p. 155). This yields categories such as child, adult and elderly. As the exact ages of Pixar characters are not frequently discussed, the exact age of the vast majority of characters is unknown. Grouping Pixar characters emically would, therefore, be the most logical course. The characters will, therefore, be grouped into three age groups, children, adults and the elderly, based on biological and social factors rather than chronological age.

Studies have revealed that speakers from these different age groups use stigmatized and non-standard variants to different degrees (Eckert, 1998; Chambers, 2009; Meyerhoff, 2011). While children tend to use more stigmatized and non-standard variants during their adolescence, adults use more standard variants, due to the requirements of the "linguistic market place" or the "talk market" (Eckert, 1998; Meyerhoff, 2011); the elderly no longer participating in the "linguistic market place" use comparatively more non-standard variants than adults (1998; 2011). Much like female speakers, adults are most likely to use standard language. However, while there is data available about the correlation between gender and accent in animation, no research has been undertaken into the connection between age and accent. As a result, it is worthwhile to investigate the possible correlation between accent and age in Pixar feature animation.

2.4.3 Setting of the film

In the previous passages, the focus has been placed on variables that are known to be sources of variation in real linguistic situations. However, as animated film is a fictional medium, variables that are non-existent in real linguistic situations might prove equally relevant. One such variable is the setting of the film. In a way this variable come close to ethnicity, which has proven to be a source of language variation in traditional sociolinguistic studies (Van Herk, 2012). The main problem here is that ethnicity is extremely difficult, if not impossible, to determine for the majority of Pixar characters. To complicate things further, the ethnicity of characters is not necessarily tied to the setting of the film. For example, while *Cars* (2006) is set in the United States, some of the cars are European. This does not, however, diminish the relevance of the setting of the film. In fact, Lippi-Green's (1997) study

has already revealed that the setting of Disney films correlates with the character's accents. She found that in films set in non-English-speaking countries more characters spoke with non-native English accents (1997, p. 89). This would suggest that Disney makes use of accent to convey the setting of their films and the possible ethnicity of their characters. It is, therefore, relevant to explore the possibility that a similar pattern exists in Pixar animation.

2.4.4 Nature of the character

As previously stated, there is evidence that villains tend to speak with foreign or RP accents (Lippi-Green, 1997). While no quantitative research has been undertaken as to the types of accents used by villains, there are so many examples of villains with foreign or RP accents that it is tempting to assume there is at least some truth in the notion that villains speak with foreign and RP accents. Accent, therefore, seems to be used by filmmakers to signal the nature of a character. It appears that this is, at least in Disney animation, also the case for animated film. Results from Lippi-Green's (1997) research revealed that antagonistic characters more often spoke with non-native and non-American native accents, while "good" characters were more likely to speak with American English accents (p. 92). As the notion of accent communicating the nature of a character is so widespread, and Lippi-Green's (1997) study supports this notion, it is not inconceivable that Pixar utilises accent to convey the nature of their characters.

2.4.5 Size of the role of the character

The final variable of interest, the size of the role of a character, has not been investigated in previous research. Yet there is some indication that the size of the role will prove to be relevant. While Lippi-Green (1997) restricts her investigation to the nature of characters, that is whether they are good, evil, mixed or neutral, Sønnesyn (2011) combined the variable nature with the size of the character's role. As a result, Sønnesyn (2011) devised seven categories a character could belong to the category: hero/heroine, villain, aide to hero/heroine, aide to villain, unsympathetic character, authority figure or peripheral role (p. 49). While Sønnesyn (2011) did find correlations between accent and these character groups, there is one crucial problem with these categories. As Sønnesyn's categories explored the nature of characters and the size of their role as if they were one variable, it became unclear which of these variables correlate with accent. This, however, does not mean that Sønnesyn's (2011) exploration of the size of the role was not relevant. Main

characters necessarily take up most of the screen time and lines, while marginal characters sometimes barely contribute a full sentence. It might, therefore, be tempting to make use of language stereotypes in order to quickly convey the characteristics of a marginal character, and it is therefore also relevant to explore whether main, supporting and marginal character make use of different accents.

2.5 Research questions and hypotheses

It is evident that a great deal is still unknown about how animation studios make use of accent to build character. The main aim of the present study is to examine Pixar's use of accent and reveal how accent might be utilised to build character. It is further of interest how Pixar's use of accent relates to other animation studios and in particular the Walt Disney Animation Studios. To this aim, the following seven research questions, which were introduced briefly in 1.5, were formulated and are accompanied by their corresponding hypotheses:

1. **Do Pixar animated features make use of accent as a means of building character?**

The film industry has a long tradition of typecasting accents within stereotypical roles. Lippi-Green's (1997) study of the dialects of animated characters in 24 Disney features, among others, established links between accent and nature of the character. It is therefore hypothesised that Pixar will also make use of accent to signal features such as a character's regional background, age, gender, nature and role.

2. **Are there considerable differences between the use of accent in Pixar animation and the use of accent in Disney animation?**

No comparative research that explores the use of accent by different film studios exists. However, it is not unlikely that Pixar and Disney utilise accent differently. While these two studios are both part of the Walt Disney Company, they are two separate studios with different pools of producers, directors and writers and this might well have an effect on the use of accent. However, as the two studios largely cater to the same audience and are both big corporate American studios, no extensive differences are expected.

3. **Is there a correlation between the settings of Pixar films and the accents of their characters?**

Lippi-Green's (1997) study established that while the percentage of characters with a non-native English accent nearly doubles when a Disney film is set in a non-English-speaking

country, the overall number of characters with a non-native accent only differs by one character (p. 89). Similar results are expected for Pixar animation, which leads to the expectation that comparatively more of the characters with non-native English accents will occur in films with a non-English-speaking setting, but that many will also occur in films set in English-speaking countries.

4. **Is there a correlation between the use of accent in Pixar films and the gender of the characters?**

Sønnesyn (2011) found a correlation between the gender and accent use of characters in Disney animation. It is expected, therefore, that Pixar might create similar patterns in their animated features. However, gender can be quite easily conveyed by physical features and behavioural patterns. Due to this, an extremely strong correlation between the gender and accent of character is not expected.

5. **Is there a correlation between the use of accent in Pixar films and the age of the characters?**

As Sønnesyn's study has revealed that Disney animation copies real linguistic patterns of male and female language, it is expected that the patterns between age and accent will also be modelled after existing linguistic patterns (2011). However, as age is rather easily expressed by the physical features and social standing of characters, this association between accent and age is not expected to be particularly strong.

6. **Is there a correlation between the use of accent in Pixar films and the nature of the characters?**

A long tradition in film exists where villains are given foreign or RP accents. This is corroborated by Lippi-Green's results (1997). While Dobrow and Gidney (1998) suggest that this pattern has decreased somewhat over the years, it is expected that the evil characters will be more likely to speak with a non-native accent or RP accent than an American accent. This expectation is based on the fact that similar patterns have already been revealed in films and series by other animation studios, but also because the linguistic intergroup bias and accessibility hypothesis would suggests that these varieties would be more stigmatised than American varieties, and this might be a convenient way to transfer the negative attitudes towards the accent onto a character.

7. **Is there a correlation between the use of accent in Pixar films and the size of the characters' roles?**

While no research has been found that looks into the correlation between the role of the character and his or her accent, it is expected that characters with supporting roles and marginal roles are more likely to have a non-native or non-standard accent than main characters. The main characters contribute the majority of the speech to the film, and in order to ensure audience members understand and relate to characters, it would not be unreasonable to expect that the characters with the most significant roles have the least noticeable accents. A further factor might be that main characters take up a great deal of the screen time. For that reason, there is more time to develop their character without the use of accent. Characters with less screen time might, by contract, be more prone to present linguistic stereotypes as a quick way to build character.

3. Methodology

This chapter provides an outline of the methodology that was used to analyse the accents used in Pixar animation. First, the corpus used will be presented and introduced. Secondly, the grounds for inclusion and exclusion of characters will be presented. Specific attention will be paid to the procedure that was followed in the analysis of the relevant variables for each character. Finally, the tools used for the analysis of the results will be discussed.

3.1 The corpus

The corpus comprises all the feature-length animated productions made by Pixar Animation Studios and were released between 1995 and 2013. A chronologically ordered list of the films in the corpus is given below:

Toy Story (1995)	*Ratatouille* (2007)
A Bug's Life (1998)	*Wall•E* (2008)
Toy Story 2 (1999)	*Up* (2009)
Monsters, Inc. (2001)	*Toy Story 3* (2010)
Finding Nemo (2003)	*Cars 2* (2011)
The Incredibles (2004)	*Brave* (2012)
Cars (2006)	*Monsters University* (2013)

Table 3.1 The films in the corpus

It is important to note that only the main films were used for the analysis, which means than any animated sequence that appeared during the final credits was not analysed. Any discussion of the plots of these films would be irrelevant at this point. If, however, any specific aspect of a plot becomes relevant to the analysis of the characters' accents, that aspect will be briefly discussed.

3.2 Grounds for inclusion and exclusion of characters

While the corpus created includes all of Pixar's feature films, not every character has been included in the analysis. Originally, the accents of all the characters with a speaking role were supposed to be analysed. However, some characters were excluded from the corpus. For instance, those characters who speak but never appear on screen were excluded from the analysis. As the aim of this thesis is to investigate possible correlations between accent and variables that might be important tools for building character, it is irrelevant to analyse

accents that occur without any further information about the characters than their speech. A list of further criteria to exclude characters is presented below:

- The character produces less than a full sentence;
- The character is not animated but appears in a live action scene;
- It is unclear which character is talking;
- The character's voice has been altered noticeably by computer software and sounds artificial or robotic;
- The character speaks in a language other than English;
- The character is a child whose language ability is not yet fully formed;
- The character mixes two accents that are part of two different accent groups and can therefore not be classified as either.

It is important to note that, although characters who use mixed accents have been excluded, those that used different accents without mixing them were not excluded. For instance, Holly Shiftwell, who has an RP accent, also briefly feigns an Italian one in *Cars 2* (2011). Throughout the analysis, only the characters' main accents have been used.

After taking all these restrictions on the inclusion of characters into account, the corpus comprised a total number of 525 characters, and well over a hundred additional speakers were excluded from further analysis due to the aforementioned restrictions. The fact that over a hundred characters needed to be excluded might be an early indication of differences in how animation studios make use of language. While Lippi-Green (1997) and Sønnesyn (2011) both analysed more films, 24 and 18 respectively, both their corpora contained significantly fewer characters, 371 and 372 respectively. However, neither of these two studies mentions having excluded any characters or languages. This might imply that Disney does not make use of any characters who speak a foreign language. No fewer than nine Pixar characters spoke only in languages other than English and a further 14 spoke both English and a foreign language. This might be an indication that Pixar creates linguistically more diverse films than Disney.

3.3 Procedure

Of interest to this thesis are a number of variables, both linguistic and non-linguistic. Table 3.2 is a blank version of the form used to analyse the characters in the corpus.

Character:	Voiced by:	Gender:	Age:	Character's nature:	Character's role:	Accent:

Table 3.2 An empty analysis form

The five variables in the table above (accent, gender, age, character's nature and character's role) have each already been discussed elaborately in Chapter 2, along with the other variable of interest, the setting of the film. Here it is therefore only necessary to discuss the guidelines that were used to classify the characters and films. However, before the procedure of each of these variables is discussed, it needs to be noted that a number of characters appear in several films. Pixar Animation Studios produced a number of sequels in which characters from earlier films re-appear. These characters have been analysed as separate characters, because the films present independent storylines that result in characters having different ages, roles and natures in different films. As a further note of interest, the column containing the names of the voice actors was added to investigate whether any of the recurring characters were voiced by different actors. It appears that only two characters, Slinky Dog and Andy from the *Toy Story* trilogy (1995; 1999; 2010), were voiced by more than one actor, and this had no effect on the characters' accents. The details of each variable can be viewed per film and character in Appendices A to N. The focus will now turn to the guidelines that were set for the analysis of each of the six variables, culminating with the most important, accent.

3.3.1 Setting

The setting of the films was determined by geographical features in the films (e.g. the Eiffel Tower) as well specific references to locations in the films. Based on their setting, the films were grouped into four categories: English-speaking, non-English-speaking, both English and non-English speaking and linguistically undetermined. It needs to be noted that some of the films with linguistically undetermined settings, such as outer-space, the ocean or the world behind closet doors, contain stretches of film that are set in the "real" world. However, as these "real" world scenes are only brief, such films have been classified as set in linguistically undetermined surroundings in their entirety.

3.3.2 Age

As was discussed in Chapter 2, age was determined emically and characters were divided into four groups: children, adults, elderly and unclear. Since the exact age of most characters was unknown, age was ascertained with the help of both physical appearance (i.e. grey hair and wrinkles to depict the elderly) and the social standing of the character (i.e. students were classified as children). For a number of anthropomorphised characters, it was impossible to estimate their age. For instance, Buzz Lightyear and Woody from *Toy Story* (1995) both sound and look like adults, because they are voiced by actors in their forties. However, while Woody has been in the family for years, Buzz is a completely new toy and has just come out of his box. As a result, their life experience would dictate that Woody would be classified as an adult and Buzz as a child. However, not all the ages of anthropomorphised characters were equally ambiguous. For example, in *Finding Nemo* (2003) the social structure of the film made it clear which age category a character belonged to. Anthropomorphised characters who occur in films that contain enough social context were therefore categorised in the appropriate age group. Finally, it needs to be noted that a number of characters aged significantly within their film. Those characters who aged significantly in the film but were voiced by the same actor were categorised in the age group they belonged to for the majority of the film. Characters who age but were voiced by different actors were included as two separate characters.

3.3.3 Gender

As has been discussed elaborately in 2.4.1, characters were categorised based on their gender, which is determined by looking at a character's social identification, rather than by biological sex (i.e. a toy could be classified as either male or female despite the fact that it does not have a sex biologically).

3.3.4 The nature of the character

The nature of the character was based on his or her participation in the plot. All main characters were classified as good, regardless of any unpleasant character traits, as were all of the characters who somehow assisted the good characters in their battle against evil. An exception to this rule is the Buzz Lightyear doll in *Toy Story 3* (2010), who is brainwashed for a stretch of the film and at that point in the film causes harm to the other good characters. He was therefore classified as mixed. Any character who knowingly caused or tried to cause

harm to the good characters was classified as evil, as were all the characters who assisted evil characters in actions that were meant to cause harm. Characters who provided assistance as well as caused harm to the good characters were classified as mixed. Finally, all the characters who did not participate in the plot between the good and evil were classified as neutral.

3.3.5 The size of the role of the character

A further classification was made regarding the role each character played in the film. Each character was labelled as either a main, supporting or marginal character. The characters were divided into these groups based on their role in the plot as well as their contribution to the film's discourse. Characters were classified as main characters when they were of importance to the entire plot and were present in a majority of the scenes. On the other hand, characters were classified as supporting characters when they were of less importance to the plot, but did participate in the dialogue in at least three different situations. Finally, all other characters were classified as marginal.

3.3.6 Accent

The guidelines presented so far provide transparent tools for establishing which group a character belongs to. However, guidelines for the variable accent were necessarily more complex and elaborate. As the main focus of this thesis is to investigate correlations between accent and the variables discussed so far, it was of the utmost importance to create a reliable procedure for establishing accent.

It first and foremost needs to be noted that the auditory nature of the methodology has been given a great deal of attention. Milroy and Gordon (2003) discuss the risks of auditory analysis; in comparison with instrumental measurement, "auditory judgements are open to greater subjectivity" (Milroy & Gordon, 2003, p. 151). However, no instrumental techniques exist that can determine the accent of a sample. This thesis therefore necessarily relies on auditory analysis of the corpus. According to Milroy and Gordon, the reliability of the results increases if a sample of the corpus is codified by a second codifier and enough agreement is reached by the two codifiers (2003, p. 151). For that purpose a second codifier analysed a sample of 98 characters and an agreement of 95.9% was reached. The four characters who were not agreed upon where presented to a third codifier. As basis for the codification the following works were consulted: *Foreign dialects. A manual for actors, directors and writers*

(Herman & Herman, 1976); *World Englishes* (Melchers & Shaw, 2011); *Accents of English* ("Language Acquisition Reader", 2013) and *International English. A guide to the varieties of Standard English* (Trudgill & Hannah, 2013). The accents that were uncovered were grouped into the following six categories for the analysis that follows in Chapter 4: GA, regional American, social American, RP, other native Englishes and non-native Englishes.

While the analysis of Pixar's use of accent that follows in Chapter 4 only distinguishes between the aforementioned six categories, where possible the accent of each character was determined as specifically as possible. For example, in *Ratatouille* (2007) Collette was classified as speaking with a French accent rather than simply with a non-native accent. However, not all characters exhibited enough features for a specific accent to be attributed to them. In order for a character to be ascribed a specific accent, the guideline was set that his or her speech had to contain at least two distinguishing features, for example the rhotic nature and typical vowel length patterns of Scottish English. It was established whether each character's speech contained enough distinguishing features by checking their speech against list of accent features compiled for this purpose; an example of one of those lists can be found in Appendix O. However, in a number of cases enough features were present to make a rough classification, but not enough distinguishing features were present to determine a character's specific accent. For example, some of the characters with a non-native English accent displayed enough features to be classified as non-native speakers, but not enough features to distinguish their speech further from other non-native accents. These characters were therefore simply labelled with foreign accent of unknown origin.

Lastly, it needs to be noted that finding distinguishing features was most challenging for characters with small or insignificant roles. While characters with larger roles tended to produce enough long and frequent speech, characters with smaller roles were at times more difficult to analyse. Characters who only had small speaking roles were listened to at least three times, and careful phonological analysis and transcriptions were made where relevant to classify what accent a character was using. An example of such a transcription can be found below:

Finn,	one	hour	to	Porto	Corsa
/'fɪn|	'wʌn	'aʊə	tə	'pɔːtəʊ	'kɔːsə/

Figure 3.3 Transcription of the accent of Stephenson the train in Cars 2

3.4 Tools

The analysis of 525 Pixar characters generated an extensive amount of data. In order to get a clear overview of the results, Microsoft Excel 2013 was used to uncover the general patterns between accent and the five variables of interest, while SPSS Statistic Desktop 22.0 was used to reveal how strong those correlations were and whether they were statistically significant. The significance of the correlations between accent and the five variables was determined by calculating the p-values, which will be presented in Chapter 4. The strength of each association was determined by calculating Cramer's V coefficient, which is suitable for the analysis of two nominal variables of which one or both has more than two variants (Abbott & McKinney, 2013, p. 98). Cramer's V coefficient takes on a value between zero and one; the closer to zero the weaker the magnitude of the association between variables, and the closer to one the stronger the magnitude of the correlation between variables (Abbott & McKinney, 2013, p. 98). Values between 0 and 0.100 can be seen as weak associations, between 0.100 and 0.300 as medium correlations and between 0.300 and 0.500 as strong associations (Abbott & McKinney, 2013, p. 98). Chapter 4 will further discuss the strength and significance of the correlations between accent and setting, gender, age, nature of the character and size of the role.

4 Results and analysis

This chapter discusses how accent correlates with the variables setting, age, gender, the nature of the character and the size of the role in greater detail. If similar data are available for the use of accent by Disney from research by Lippi-Green (1997) or Sønnesyn (2011), a comparison will be made. Before the correlations between accent and the aforementioned variables are looked into, the distribution of the various accent types will be looked at briefly.

4.1 The accents found in Pixar feature animation

As was discussed in Chapters 2 and 3, the various accents used by Pixar characters were grouped into six categories: GA, regional American, social American, RP, other Englishes and non-native Englishes. Figure 4.6 provides an overview of the distribution of accents among Pixar characters:

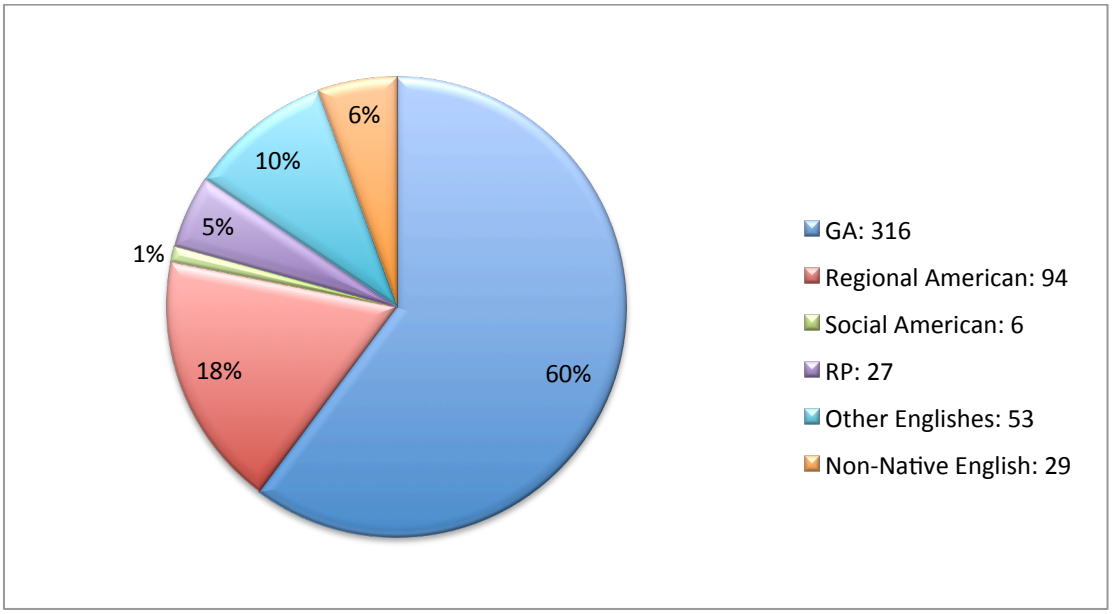


Figure 4.1 The distribution of accent among the characters

Perhaps unsurprisingly, the majority of characters speak with GA accents. As Pixar is an American company, GA is the most neutral accent choice for characters. What is more striking, however, is the small proportion of characters who speak with American sociolects. Only 6 characters of a total 525 speak with a sociolect and of those five speak African American Vernacular English. The number of characters who speak with a sociolect as well as the variety of sociolects is insignificant in comparison to the number of GA and regional

American speakers and even in comparison to non-American native and non-native English accents.

4.1.1 Pixar compared to Disney

Much like Pixar, Disney seems to avoid the use of American sociolects and rather creates characters with GA accents. However, there are also a number of significant differences between Pixar's and Disney's use of accent. The graph below gives some insight into those differences:

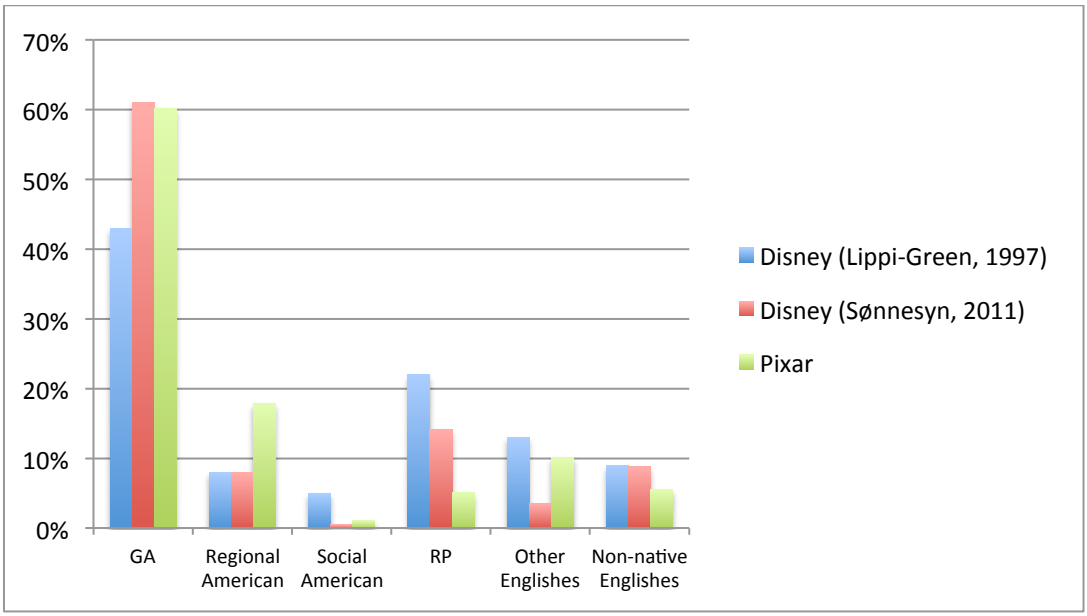


Figure 4.2 The percentages of characters per accent type from Pixar and Disney animation

It needs to be noted that some of the groups from Lippi-Green's (1997) and Sønnesyn's (2011) studies were regrouped to enable a comparison to the present study. For example, both Lippi-Green and Sønnesyn made a distinction between regional British English accents and other non-American native English accents, but these are grouped together in figure 4.2. While there are also differences between the two studies on Disney's use of accent, in the present study the differences between Pixar's and Disney's use of accent are of interest. The three most significant differences can be found among the speakers of regional American, RP and non-native accents; Pixar proportionally creates over twice as many characters with regional American accents than Disney, but fewer characters with RP and non-native accents. Although there are also some other differences, these are not supported in the two studies on Disney animation. For this reason, it would be difficult to speak of convincing patterns. However, the variation between Pixar's and Disney's use of regional American, RP and non-native accents suggests that the two studios utilise accent differently.

4.2 Setting and accent

The settings of the films in the corpus vary greatly. A table with the setting of each film can be examined below:

Film:	Set in:	Film:	Set in:
Toy Story	United States	*Ratatouille*	Rural France and Paris
A Bug's Life	An ant colony and a bug city	*WALL•E*	Apocalyptical earth and outer-space
Toy Story 2	United States	*Up*	United States and South America
Monsters, Inc.	The world behind closet doors	*Toy Story 3*	United States
Finding Nemo	The ocean surrounding Australia	*Cars 2*	United States, Tokyo, Paris, Italy and London
The Incredibles	United States	*Brave*	Scotland
Cars	United States	*Monsters University*	The world behind closet doors

Table 4.3 Settings of the films

While the world of Pixar is obviously not a realistic representation of the linguistic situation in the world—talking animals or objects are not an everyday occurrence, to say the least—nine films are set in situations modelled on real countries. By contrast, five films are set in locations where no one language could be said to be more appropriate than another. However, it needs to be noted that the numbers of characters provided by each film differ. *WALL•E* (2008), for instance, only provided 12 of the characters in the corpus, while *Cars 2* (2011) contributed no fewer than 68. A chart with the distribution of the total number of characters per type of setting, therefore, follows:

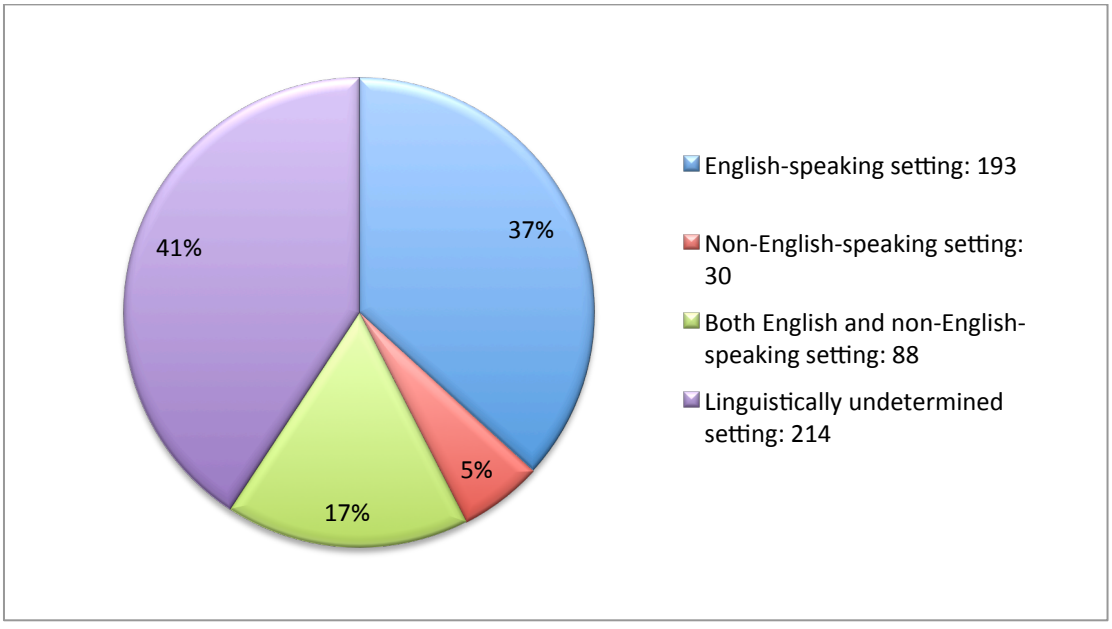
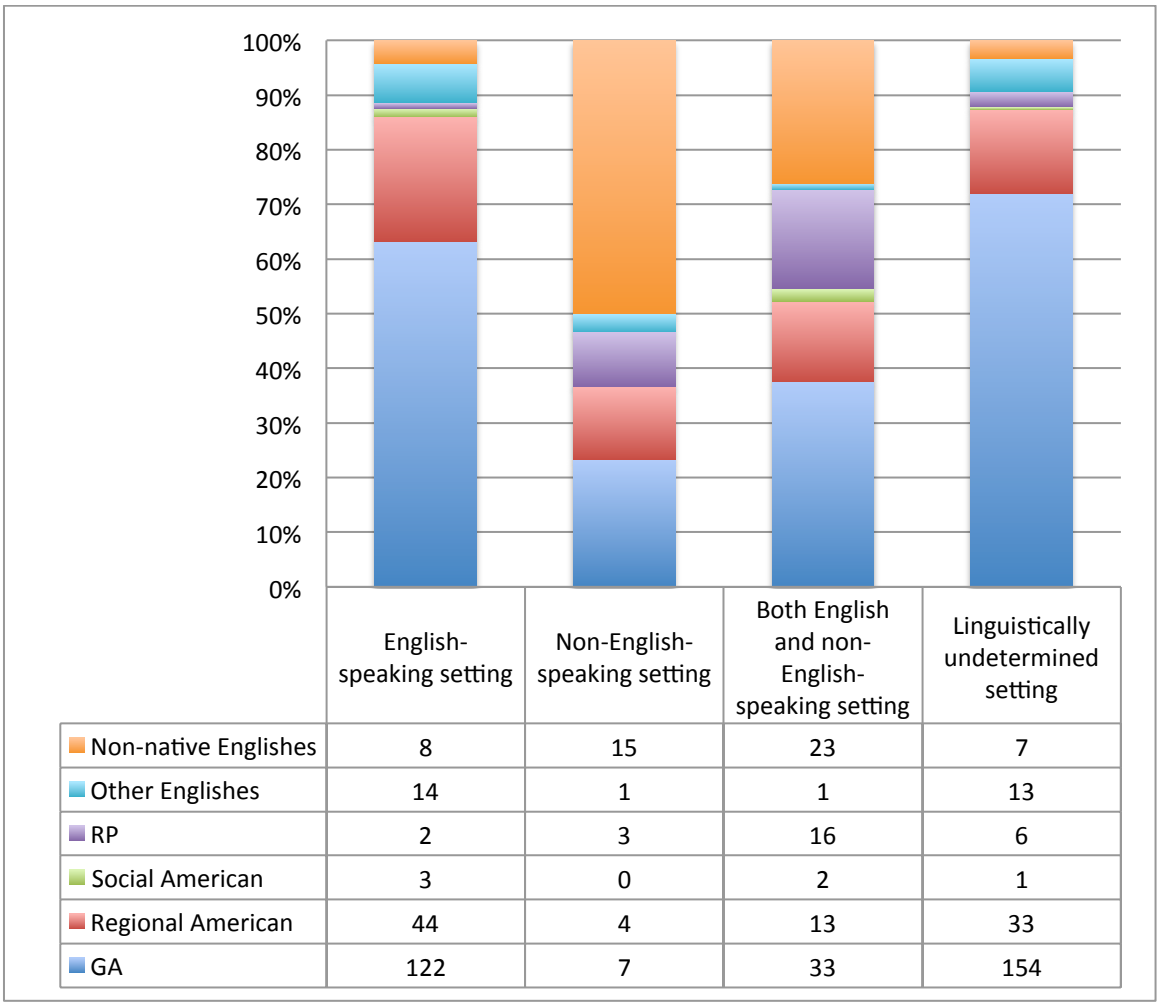


Figure 4.4 The spread of characters per type of setting

While 193 of the characters would be speakers of English according to the setting they appear in, no fewer than 214 of the characters in the corpus would be as likely to speak English as any other language and a further 30 would not be speakers of English. Another 88 characters appear in films that have both English-speaking as well as non-English-speaking settings.

4.2.1 The correlation between the setting of films and the accent of characters

As was illustrated by table 4.3, the films in the corpus are set in widely varying surroundings. This sub-section investigates whether the setting of a film is conveyed by the accent of its characters, and whether accent plays a role in conveying atmosphere and setting as well as signalling the ethnicity of characters. The figure below displays the accents of the characters stratified against the setting of the films they appear in:



	English-speaking setting	Non-English-speaking setting	Both English and non-English-speaking setting	Linguistically undetermined setting
Non-native Englishes	8	15	23	7
Other Englishes	14	1	1	13
RP	2	3	16	6
Social American	3	0	2	1
Regional American	44	4	13	33
GA	122	7	33	154

Figure 4.5 The correlation between accent and setting

At first glance, it is immediately evident that the use of accent differs widely for the various types of setting. The most striking of these differences can be found in the use of

non-native English accents. Films that are set completely or partly in non-English-speaking settings contain a greater proportion of speakers of non-native English, while films with a linguistically undetermined or American setting contain mainly American accents. This would strongly suggest that Pixar makes use of accent to convey the setting of their films as well as the background of their characters. This is further corroborated by the fact that, while the percentage of speakers of Non-native English is high in both completely and partly non-English-speaking set films, this percentage is highest in films with a completely non-English-speaking setting. It appears, therefore, that accent is a useful tool when it comes to conveying setting and character background.

4.2.2 The statistical strength and significance of the correlation

The association between the setting of films and the accent in Pixar feature animation is significant at a significance level of $p<0.01$. As such there is very strong evidence that the pattern between setting and accent is not coincidental. Although the evidence that the correlation between setting and accent is significant, the actual association between these two is not as strong.

		Value	Approx. Sig
Nominal by Nominal	Cramer's V	.315	.000
N of Valid Cases		525	

Table 4.6 The strength and significance of the correlation between accent and setting

As the table above illustrates, a calculation in SPSS yielded a Cramer's V coefficient of 0.315. A Cramer's V value of 0.300 is an association of medium strength, while a value of 0.500 is a strong association between variables. The strength of the association between the setting of the film and the accents of the characters therefore is of slightly more than medium strength.

4.2.3 Pixar compared to Disney

While the pattern revealed in Lippi-Green's (1997) study of Disney animation is similar to that in Pixar animation, this pattern is much less pronounced, as the table below indicates:

		Value	Approx. Sig.
Nominal by Nominal	Cramer's V	.145	.021
N of Valid Cases		371	

Table 4.7 The strength and significance of the correlation between accent and setting in Disney Animation

Lippi-Green's (1997) results are relevant at a significance level of $p<0.05$ and have a Cramer's V coefficient of 0.145. The correlation between setting and accent, therefore, is less strong and significant in Disney animation than in Pixar animation. For example, while the highest percentage of characters with a non-native accent was found in films with (partly) non-English-speaking settings for both Disney and Pixar animation, this percentage was only 15.2% in Disney films and 32.2% in Pixar films. A comparison between the use of non-native English accents in Pixar and Disney can be found in figure 4.8.

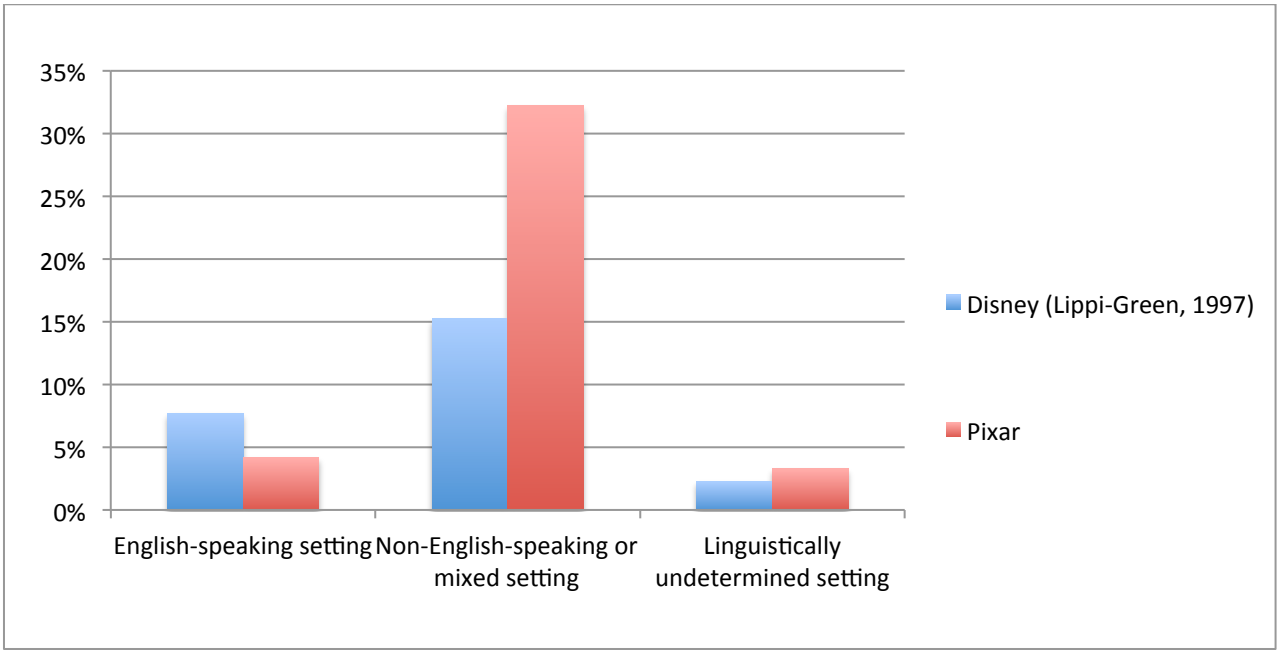


Figure 4.8 The percentage of characters with non-native English accents per type of setting

The fact that Pixar makes more use of non-native English accents in films set in a non-English-speaking environment than Disney suggests that Pixar makes more use of accent to convey setting and character ethnicity than Disney and less for other types of linguistic character building. This is not to say that Pixar does not make use of non-native accents for purposes other than conveying background. If this had been the case, no non-native English accents would have been spoken in the films with English-speaking and linguistically undetermined settings. Nonetheless, the main function of non-native English accents seems to be the conveying of setting and character background.

4.2.4 The pattern between the accents of animals and setting

While the overall pattern between accent and setting is reasonably strong, the pattern could be even more pronounced. However, as animal characters seem less prone to conform to the association between setting and accent, the correlation between accent and setting is

somewhat weakened. For instance, while the human characters in these films speak with accents more befitting the setting, all the animal characters speak with American accents regardless of the Scottish setting in *Brave* (2012) and the French setting in *Ratatouille* (2007). That is not to say all animal characters speak with American accents. In *Finding Nemo* (2003) a number of animals speak with Australian accents, amongst others, but as it would be difficult to argue, for example, that Australian fish should have Australian accents, the accents of animal characters are less restricted. Conveying setting can, therefore, be a reason for the use of a specific accent, but not all non-English characters speak with non-English accents, and distinguishing between human and animal characters appears to override the need to convey setting. Clearly, accent conveys more than setting and character ethnicity. Therefore, the results from the other four variables will now be presented.

4.3 Gender and accent

Before the correlation between the gender of characters and their accents is investigated, it is interesting to take note of the balance between male and female characters. As chart 4.7 reveals, over three quarters of Pixar characters are male.

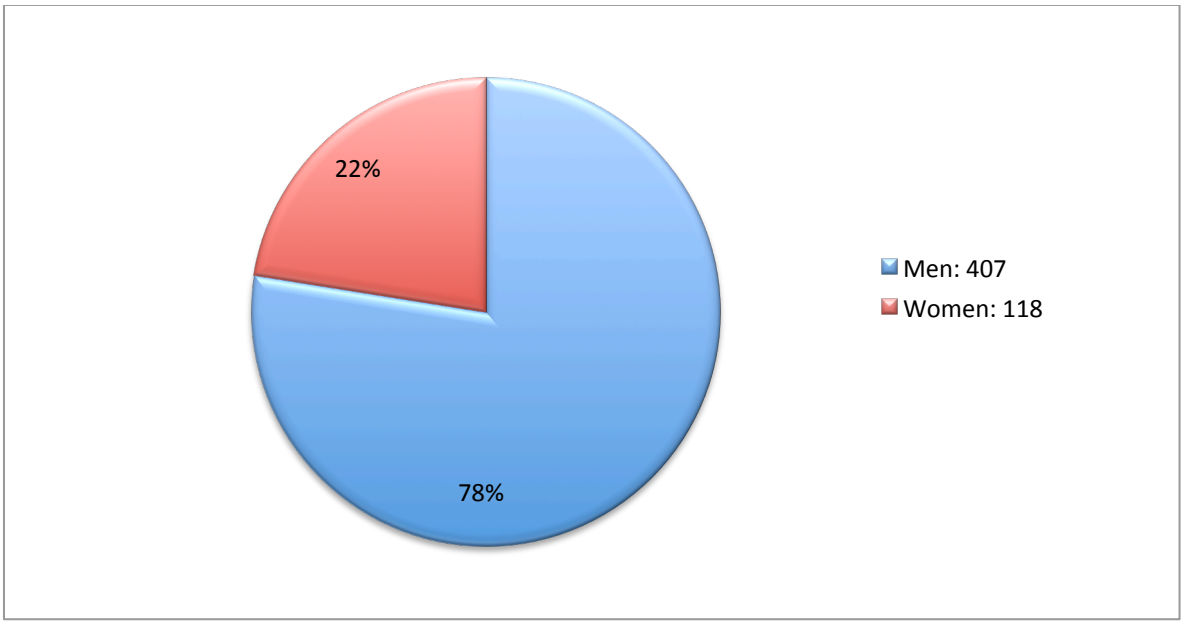
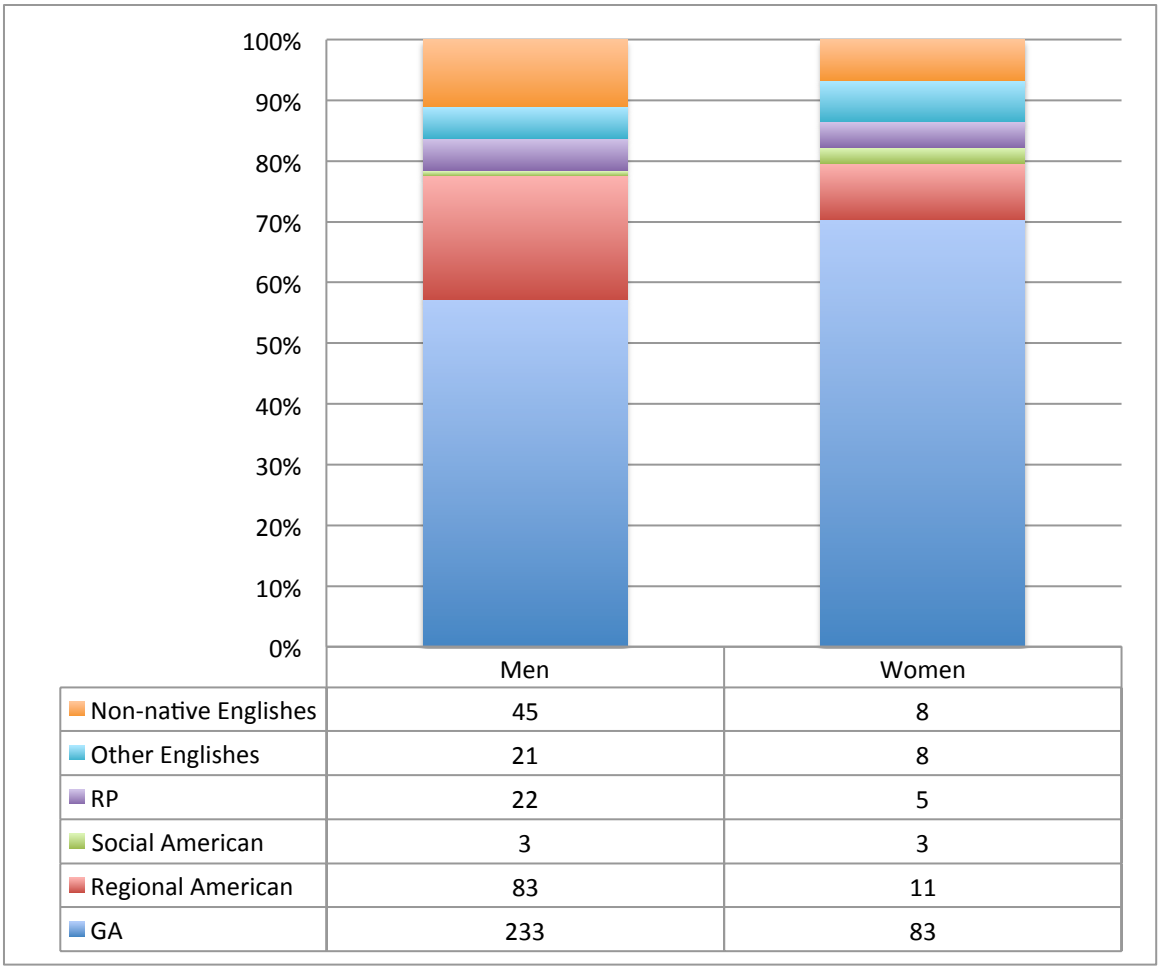


Figure 4.9 The proportion of male and female characters

4.3.1 The correlation between gender and accent

Similar to the skewed balance between male and female characters, the extent to which male and female characters make use of the various accents is also unbalanced. In fact, the pattern that appears is similar to that in real linguistic situations (Chambers, 2009; Meyerhoff, 2011; Van Herk, 2012).



	Men	Women
Non-native Englishes	45	8
Other Englishes	21	8
RP	22	5
Social American	3	3
Regional American	83	11
GA	233	83

Figure 4.10 The correlation between accent and gender

While some smaller differences can be found between male and female use of non-American accents, the biggest differences are found within the use of American accents. On the one hand, more men speak with a regional American accent than women; on the other hand, proportionally more women speak with GA accents than men. Similar patterns have been found in studies of real linguistic situations, where women were found to speak standard language varieties more often than men (Chambers, 2009; Meyerhoff, 2011; Van Herk 2012). Pixar characters seem to adhere to this pattern, with the exception of a larger proportion of female characters who speak American sociolects, for instance Flo from *Cars* (2006) and *Cars 2* (2011). However, it is relevant to note that while 2.5% of the female characters and only 0.7% of the male characters speak American sociolects, the number of male and female characters who speak American sociolects is the same. There are three male and three female characters who speak sociolects, and this only leads to a higher percentage of female characters who speak a sociolect, because, overall, there are fewer female characters. Regardless of a higher percentage of female characters who speak an

American sociolect, the female characters are still more likely to speak with a GA accent and less likely to speak with a non-standard American accent than the male characters.

The results also reveal differences between male and female use of the other accent types. Proportionally more men have non-native or RP accents than women, and women proportionally use more other native English accents. However, there seem to be few reasons for these differences other than chance. For instance, the corpus contains 27 characters with an RP accent, of whom 16 occur in *Cars 2* (2011). All of these are English characters, but only two happen to be female. *Cars 2* (2011) simply does not contain any other female British characters. It appears, therefore, that although there are fewer female than male characters with an RP accent, this is a result of the number of female English characters rather than an attempt by Pixar to avoid female characters with RP accents. The differences between the use of non-native English accents and other native English accents of male and female characters seem similarly based on coincidental differences between the two groups. Therefore, the most important pattern between the accent and gender of characters is a slight tendency for female characters to speak with GA accents and for male characters to speak with regional American accents.

4.3.2 The statistical strength and significance of the correlation

The correlation between the gender of the characters and the accent in Pixar feature animation is significant at a significance level of $p<0.05$. There is, therefore, strong evidence that the pattern between setting and accent is not coincidental. Although the evidence that the correlation between setting and accent is significant is strong, the actual association between these two is altogether less pronounced, as can be observed in the table below:

		Value	Approx. Sig.
Nominal by Nominal	Cramer's V	.162	.017
N of Valid Cases		525	

Table 4.11 The strength and significance of the correlation between accent and gender

A calculation in SPSS yielded a Cramer's V coefficient of 0.162. A Cramer's V value of 0.100 reveals an association of weak strength, while a value of 0.300 points to medium association between variables. The strength of the association between gender and the accents therefore is between weak and medium in strength.

4.3.3 Pixar compared to Disney

A not altogether different use of accent can be found among the male and female Disney characters. While Lippi-Green (1997) does not look into the linguistic possibilities open to all the male and female characters in her corpus, but only at the language use of lovers, mother and fathers, Sønnesyn (2011) investigates the different uses of accent by male and female characters. While the numbers of male and female speakers of each of the accent types are not exactly the same in Pixar and Disney animation, the overall patterns between gender and accent are the same. The graph below illustrates the differences between the accents used by male and female Disney and Pixar characters:

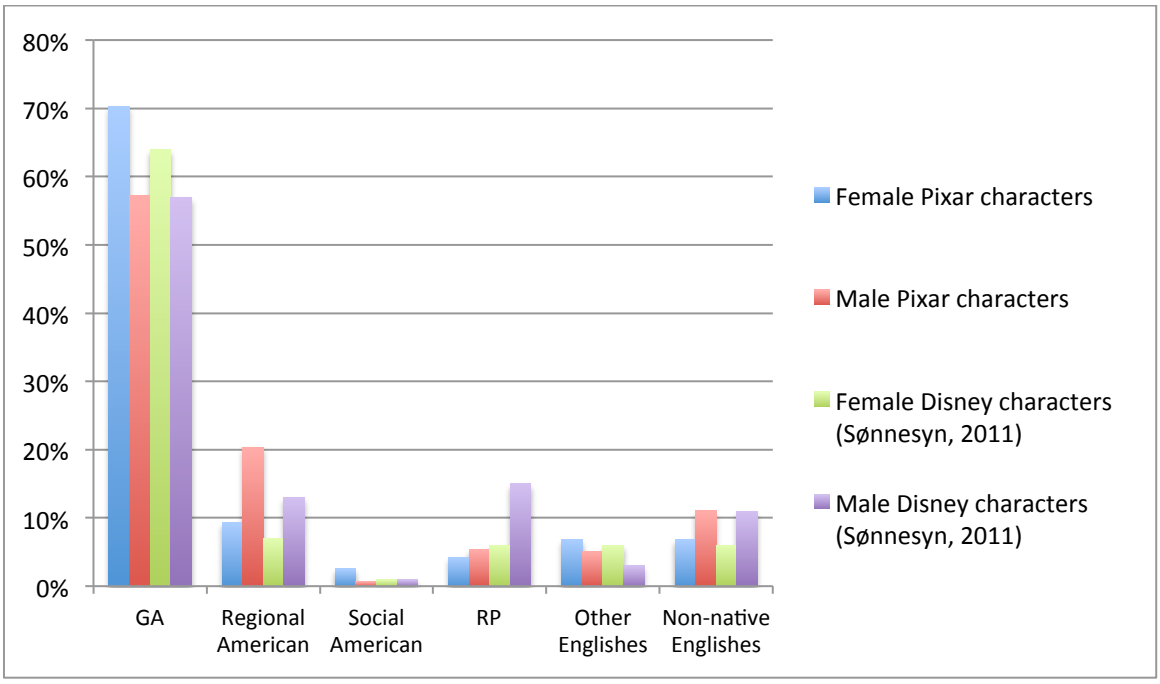


Figure 4.12 The correlation between accent and gender in Pixar and Disney

Much like the female Pixar characters, the female Disney characters more frequently speak with a GA accent than men, who in turn speak more often with a regional American accent (Sønnesyn, 2011, p. 58). Despite some small differences, both Pixar and Disney create patterns in male and female use of accent that are similar to what one could encounter in real linguistic situations. However, differences between male and female use of the various accents seem slightly less pronounced in Disney animation than in Pixar animation. For example, while 13.1% more Pixar women speak a GA accent than Pixar men, this difference is only 7% between female and male Disney characters. However, it is unclear how significant or strong the association between gender and accent is for Disney characters, as Sønnesyn (2011) does not calculate the significance or strength of the correlation between

gender and accent nor provides the necessary data to calculate these values. It is here, therefore, only possible to state that while both Disney and Pixar create correlations between gender and accent, these appear slightly more pronounced in Pixar animation.

4.4 Age and accent

A relatively large number of Pixar characters are adults, while comparatively few characters are children or elderly. The graph below shows the ages of the characters in the corpus:

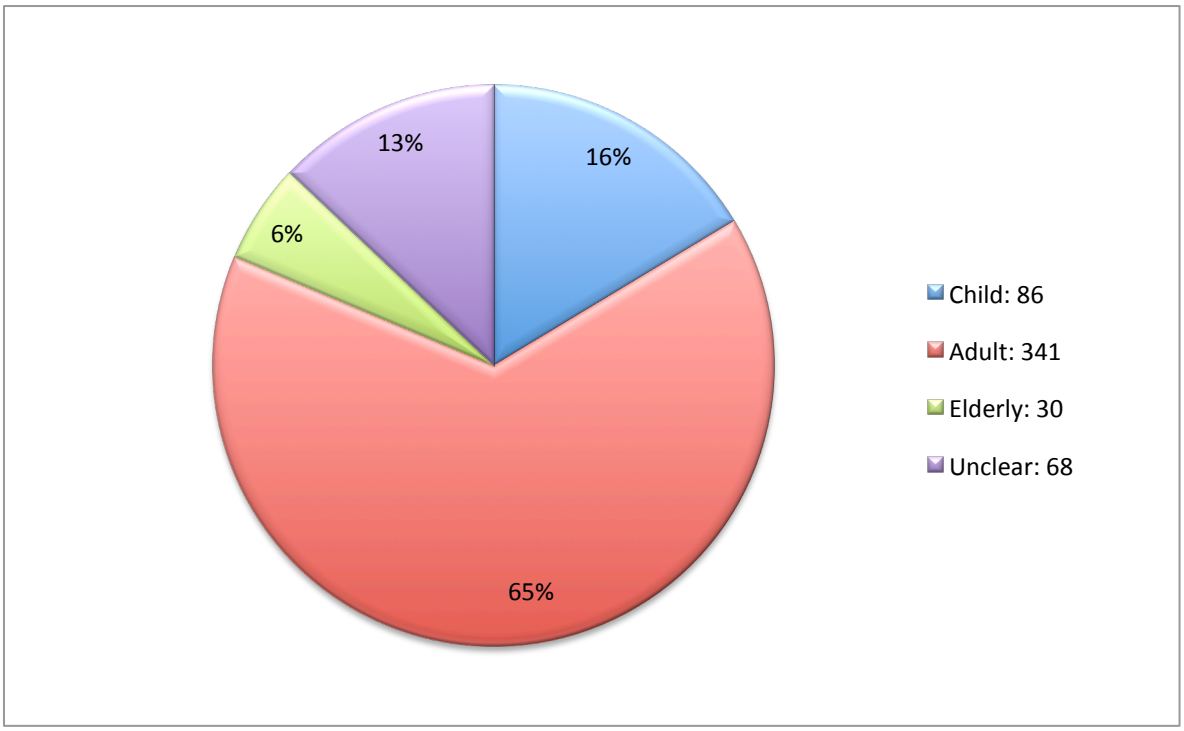
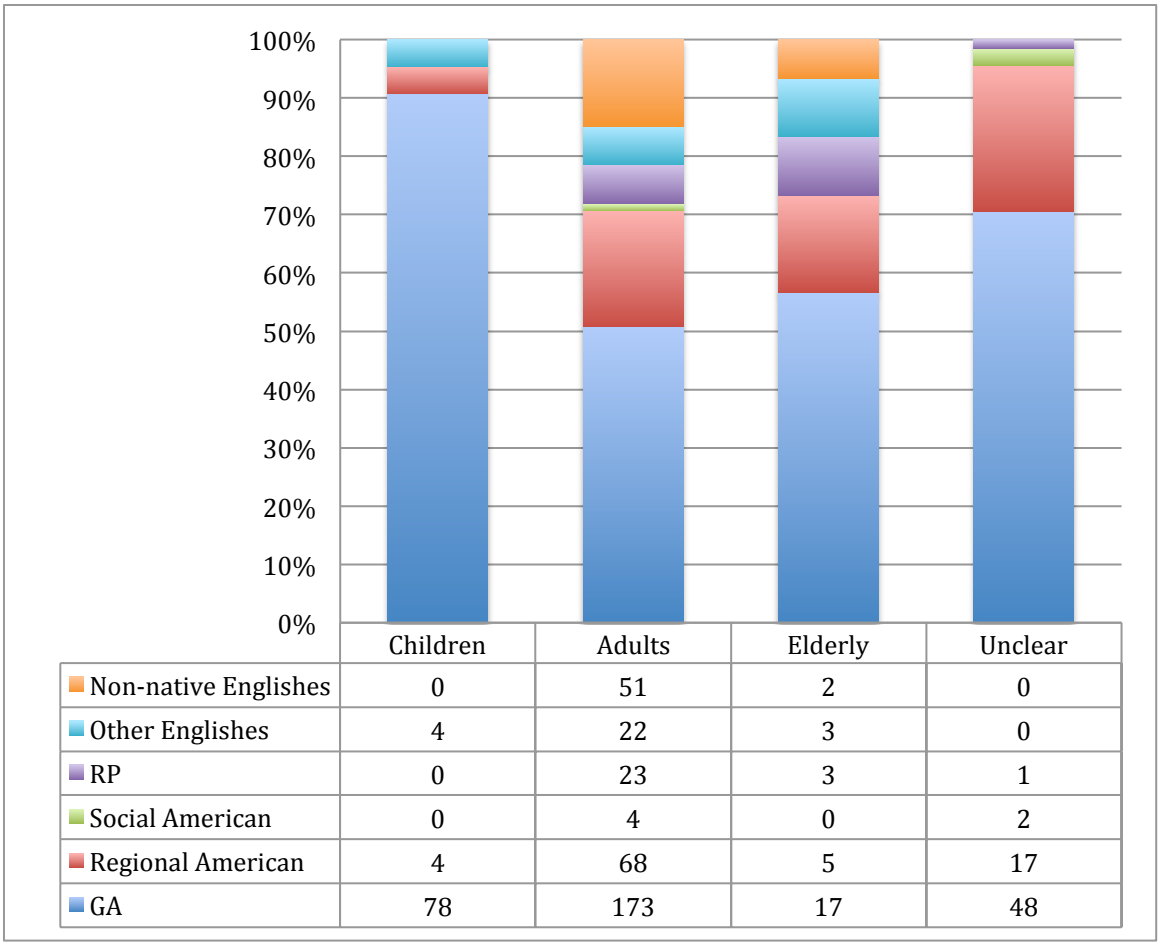


Figure 4.13 The proportions of age groups

4.4.1 The correlation between age and accent

While male and female Pixar characters make more or less realistic use of various accents, no such linguistic realism is present in Pixar's use of accent when it comes to age. Sociolinguistic studies have revealed that people tend make more use of regional and non-standard varieties in older age, while they move away from these varieties in early adulthood due to requirements of the "linguistic market place" or the "talk market" (Eckert, 1998; Chambers, 2009; Meyerhoff, 2011, p. 154). However, the reverse pattern is found among the Pixar characters. Below, the figure illustrates the use of accent by different age groups:



	Children	Adults	Elderly	Unclear
Non-native Englishes	0	51	2	0
Other Englishes	4	22	3	0
RP	0	23	3	1
Social American	0	4	0	2
Regional American	4	68	5	17
GA	78	173	17	48

Figure 4.14 The correlation between accent and age

It becomes evident at first glance that the various accent types are not stratified equally among characters from different age groups. It is particularly noticeable that only the adult character group contains speakers of each of the six accent types. In contrast, the elderly character group contains speakers from five accent groups, while the characters with unclear ages only seem to use accents from four of the groups, and children even fewer.

With only 8 of the 86 child characters speaking with accents other than GA, children are by far the most linguistically restricted group. In fact, the only eight children that speak with non-GA accents are restricted to two films: *Brave* (2012) and *Monsters University* (2013). The four children with accents that fall in the group other Englishes all occur in *Brave* (2012), in which all the human characters speak with Scottish accents. The children in *Brave* (2012) are no exception and also speak with Scottish accents, and it seems likely that these children were given Scottish accents mainly to convey setting and ethnicity. By contrast, the four remaining children with non-GA accents all appear in *Monsters University* (2013) and are all students. They are, therefore, closer to the adult age group than any of the other children in the corpus, which might be why these characters do have non-standard accents. Intriguingly

enough, one of these characters, Mike Wazowski, briefly appears as a young child, and the younger Mike Wazowski, who is voiced by a different voice actor, does not have a regional American accent but speaks with a GA one. It seems, therefore, that Pixar avoids creating child characters with non-GA accents unless accent is an important tool for conveying setting and highlighting the characters' background or unless the characters are on the verge of adulthood.

Similar to the children, characters whose ages are unclear are restricted in their linguistic choices, albeit slightly less so than the children. However, while no characters with undetermined ages speak with non-native or other English accents, this seems to be the result of coincidence rather than design. The majority of the characters in the unclear age group are characters from one of the three *Toy Story* films (1995; 1999; 2010). All three of these films are set in the United States, and none of the characters would have any particular reason to speak with an accent from the non-native or other Englishes group. The same could be said for an RP accent, but there is nonetheless a character with an RP accent in this group. Mr Pricklepants, the character in question, has an RP accent to convey his love of Shakespeare, acting and the theatre. He, therefore, has an RP accent solely for the purpose of character building. It is unlikely that, if characters in this group are given RP accents for the purpose of character building, non-native accents or other Englishes are avoided when they could serve the same purpose.

While the most significant patterns between age and accent are those presented by the children, the accent use of the adults and elderly also needs to be discussed. While there are some differences between the accents used by these groups, these differences are not very significant. While elderly characters are more likely to speak with a GA accent and less likely to speak with regional American accents than the adult characters, this difference in only small. In fact, as there are only thirty elderly characters, one more character with a regional accent rather than GA accent would have made up for the difference. Nor is it very surprising that that there are no elderly speakers of sociolects, as only 6 out of a total of 525 characters speak an American sociolect. The differences between the adult and elderly age group are, therefore, not very significant, and Pixar seems to treat these age groups as linguistically equal. The only age group that seems severely limited in their choice of accent, therefore, are the children

4.4.2 The statistical strength and significance of the correlation

The association between the age of the characters and the accent in Pixar feature animation is significant at a significance level of $p<0.01$. There is, therefore, very strong evidence that the pattern between setting and accent is not coincidental. However, the strength of the association between age and accent is not particularly strong.

		Value	Approx. Sig.
Nominal by Nominal	Cramer's V	.215	.000
N of Valid Cases		525	

Table 4.15 The strength and significance of the correlation between accent and age

As the table above reveals, a calculation in SPSS yielded a Cramer's V coefficient of 0.215. The strength of the correlation is, therefore, somewhere between weak and medium.

Unfortunately neither Lippi-green (1997) nor Sønnesyn (2011) investigated age as a variable, so there is no information available that can reveal whether Disney creates similar patterns between accent and age.

4.5 Accent and the nature of the character

The balance between good and evil characters is not even. In fact, the majority of the characters are not part of the conflict between good and evil at all and can, therefore, not be classified as either good or evil. The proportions of good, evil, mixed and neutral characters are displayed in the chart below:

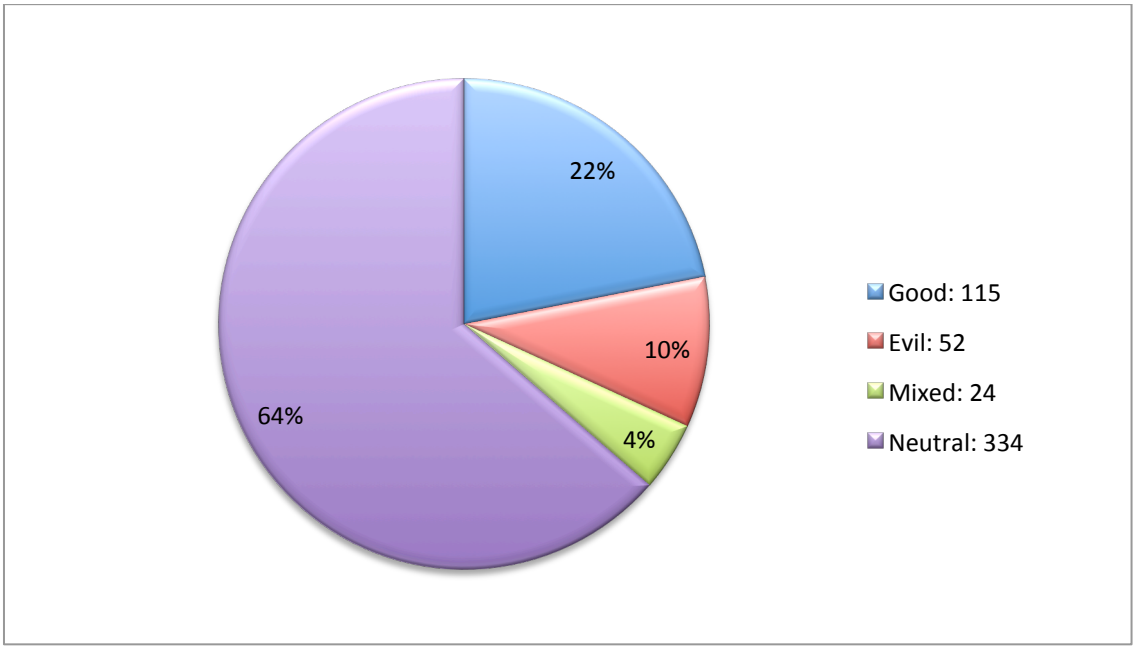
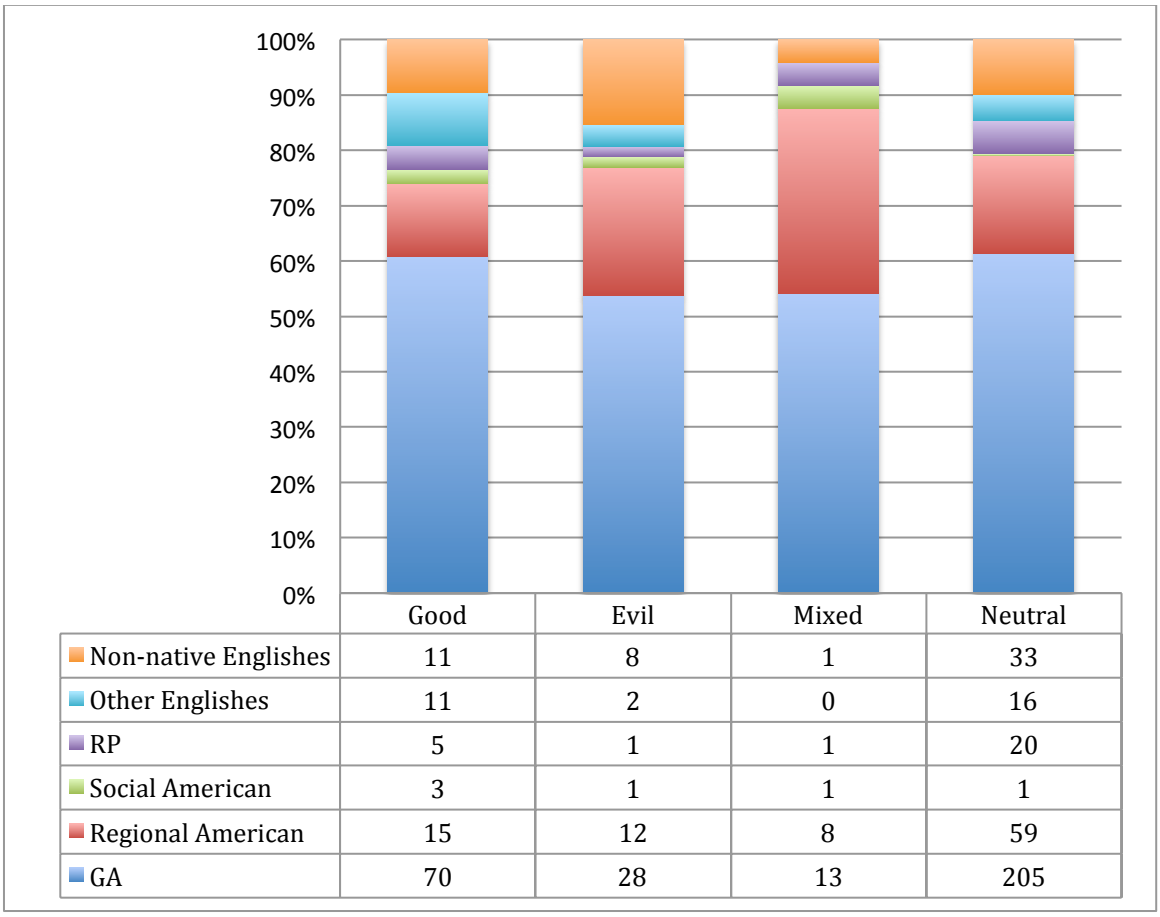


Figure 4.16 The nature of the character

4.5.1 The correlation between the nature of the character and accent

As it is often assumed that linguistic stereotypes appear particularly often in the speech of villains, it was expected that strong correlations exist between the nature of a character and his or her accent ("Why villains", 2003; Dobrow & Gidney, 1998). However, a number of patterns were less strong than expected. For instance, fewer evil characters spoke with non-native accents than expected, while more of the good characters spoke with non-American native English accents. An overview of the spread of accent types among good, evil, mixed and neutral characters is displayed below:



	Good	Evil	Mixed	Neutral
Non-native Englishes	11	8	1	33
Other Englishes	11	2	0	16
RP	5	1	1	20
Social American	3	1	1	1
Regional American	15	12	8	59
GA	70	28	13	205

Figure 4.17 The correlation between accent and the nature of the character

As expected, proportionally more evil characters speak with non-native English accents than good characters. However, regional American English appears to be an even more important tool for creating evil characters. Similarly, characters with mixed natures use more regional American accents than good characters do. In fact this category proportionally uses the most regional American accents of the four. It might be interesting to note that 75% of the evil or mixed characters with regional American accents speak with urban New York City or Boston accents. This suggests that Pixar uses the stereotypes attached to these varieties

to create unsympathetic characters. However, while regional American accents are used to create characters with mixed natures, non-native English accents are not frequently used to create characters with mixed intentions. Therefore, while both non-native English accents and regional American accents are used to create characters with evil or mixed intentions, regional American English accents are more frequently used by Pixar to create characters with questionable motivations than non-native English accents.

Although there is no quantitative research into percentages of villains with RP accents, it is often assumed that villains frequently speak with RP accents, and Pixar villains are not exempt from this expectation ("Why villains", 2003). Therefore, the small number of evil characters with RP and other non-American native English accents is as unexpected as the relatively small number of villains with non-native accents. Only 5.8% of the villains, which corresponds to only three characters, speak with non-American native accents of English. However, it needs to be noted that two villains (Henry Waternoose from *Monsters, Inc.* (2001) and Stinky Pete from *Toy Story 2* (1999)) were excluded from the corpus because their accents contained features of both American and British English. If these had been included and treated as speakers of RP, which is likely the variety they were attempting to imitate, a marginally higher percentage of evil characters would have spoken with RP accents than good characters. However, including these two characters would only have created a difference of 1.12%, which hardly hints at a strong tendency toward creating British-sounding villains. It appears, therefore, that non-native English accents and even more so regional American accents are utilised more frequently to create characters with evil or mixed intentions than British accents are.

4.5.2 The statistical strength and significance of the correlation

The correlation between the nature of the characters and the accent in Pixar feature animation is not significant with a p-value of 0.112. The correlation between nature of the character and accent could, therefore, be coincidental. However, there is nonetheless an association between these two variables albeit only a weak one, as can be seen below:

	Value	Approx. Sig.
Nominal by Nominal Cramer's V	.118	.112
N of Valid Cases	525	

Table 4.18 The strength and significance of the correlation between accent and the nature of the character

The Cramer's V coefficient for the variables accent and the nature of the character is 0.118. While this does not indicate a strong pattern between the two variables, there is nonetheless an association of weak strength.

4.5.3 Pixar compared to Disney

While Disney also seems to make use accents to convey the nature of characters, there are a number of differences in the way Pixar and Disney communicate nature by means of accent.

		Value	Approx. Sig.
Nominal by Nominal	Cramer's V	.170	.002
N of Valid Cases		371	

Table 4.19 The strength and significance of the correlation between accent and the nature of the character in Disney animation

In fact, as is evident form the table above, while the association between accent and nature has a Cramer's V coefficient of only 0.118 for Pixar animation, the Cramer's V coefficient is 0.170 for Disney animation. Although this only results in a small difference of 0.52 between the Disney and Pixar coefficients, it nonetheless indicates that Disney creates a stronger correlation between accent and nature than Pixar does. Furthermore, while the association is not statistically significant for Pixar, it is significant at a significance level of $p<0.05$ for Disney animation. As a result, the patterns between accent and nature are more pronounced in Disney animation than in Pixar animation.

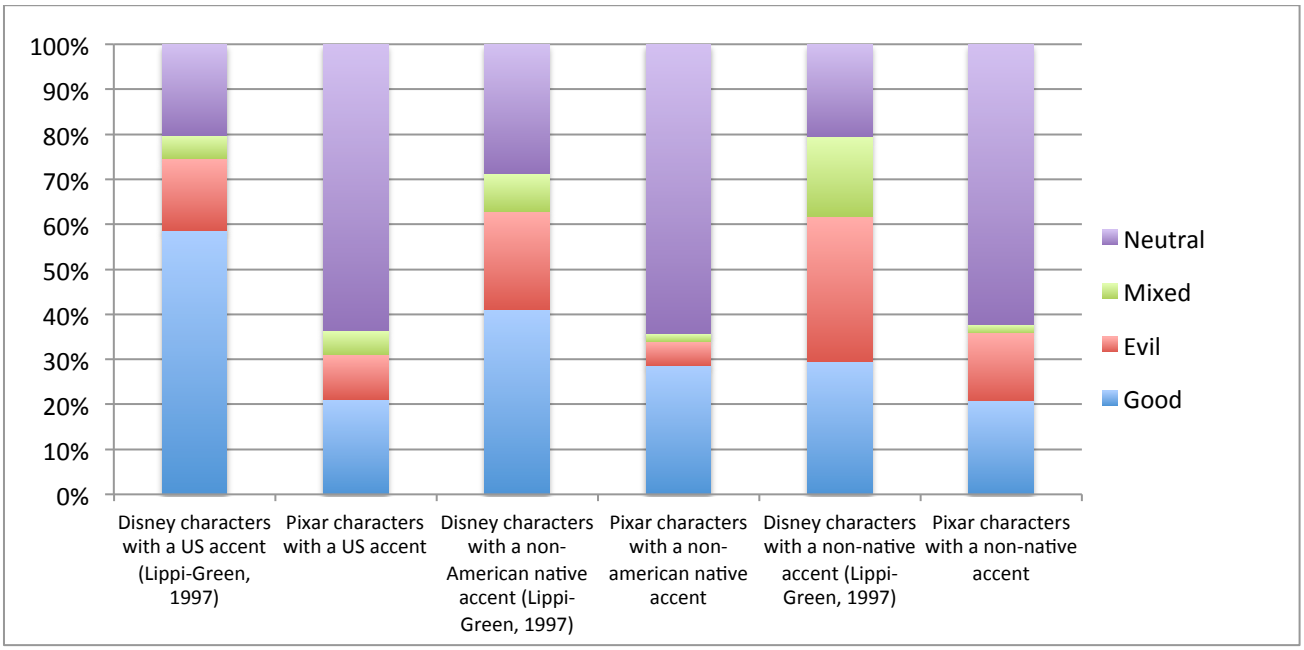


Figure 4.20 The correlation between accent and the nature of the character in Pixar and Disney

As is immediately evident from figure 4.20, the pattern between accent and the nature of characters differs a great deal between Pixar and Disney. Although the graph most clearly illustrates that Pixar overall creates a great deal more characters with GA accents than Disney, the most significant difference between Disney's and Pixar's use of accent with regard to conveying nature is present in the use of non-American native accents. While only 5.8% of Pixar villains speak with non-American native English accents, no fewer than 38.9% of the Disney villains in Lippi-Green's (1997) research spoke with British accents (p. 90). By contrast, only 15.3% of villains in Lippi-Green's (1997) study spoke with non-native English accents (p. 90). This would indicate that Disney makes more use of non-American native English accents to create villains than of non-native English accents. Sadly, Lippi-Green does not reveal how many of the evil characters speak with regional American accents, so it is unclear if this is a tool Disney also uses to create evil characters or whether this use of regional American accents is restricted to Pixar animation.

4.6 Accent and the size of the role of the character

Since each film features only limited numbers of main characters, it is unsurprising that the majority of Pixar characters have supporting or marginal roles. The chart below presents the numbers of characters in each of the three groups:

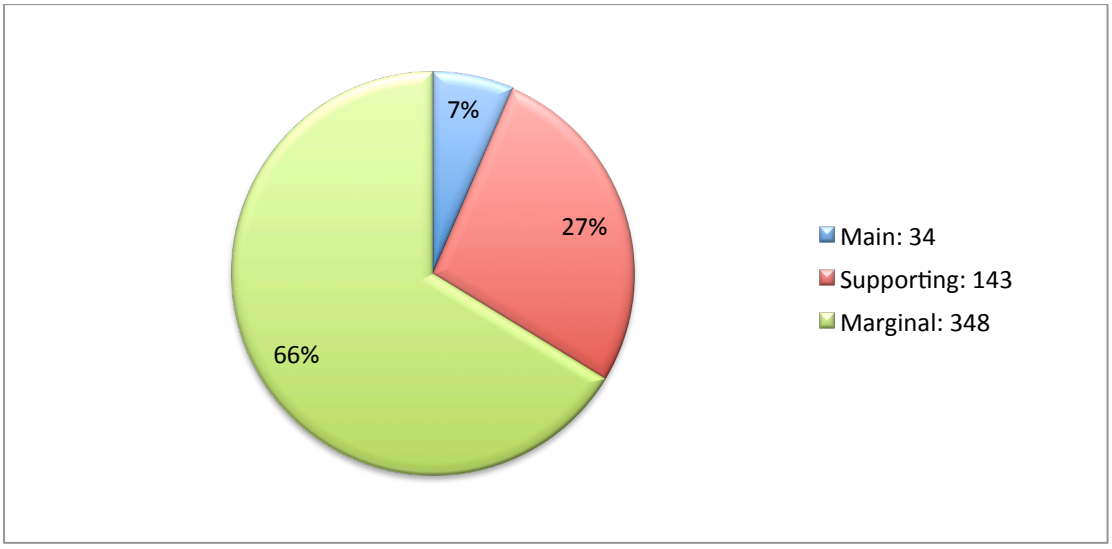
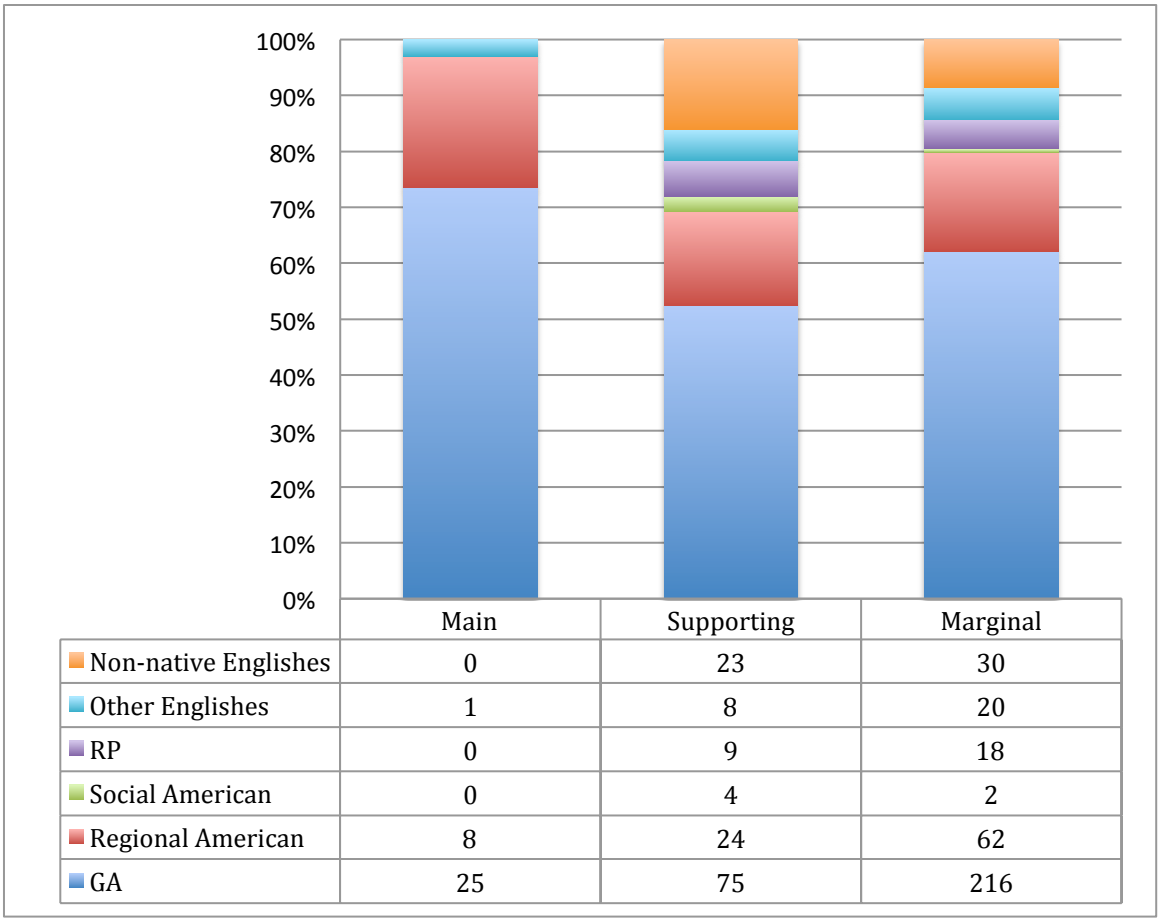


Figure 4.21 The division of characters per size of the role

4.6.1 The correlation between the size of the role of the character and accent

Finally, the results concerning character role will be presented and analysed. Figure 4.22 reveals that there are strong connections between a character's role and his or her accent.



	Main	Supporting	Marginal
Non-native Englishes	0	23	30
Other Englishes	1	8	20
RP	0	9	18
Social American	0	4	2
Regional American	8	24	62
GA	25	75	216

Figure 4.22 The relationship between accent and the size of the role of the character

Even at first glance, it becomes immediately apparent that the majority of the main characters speak with GA accents. Only 9 out of 34 of the main characters speak with accents other than GA. Of these nine, only Merida from *Brave* (2012) is the sole main character in her film, while all of the other characters share the limelight with at least one other, usually GA speaking, main character.

In contrast, supporting and marginal characters are free to use any of the accent types. There are, however, some differences between the use of accent by supporting and marginal characters. For example, there seems to be a slight tendency for supporting characters to speak more often with non-native English accents or use American sociolects, while marginal characters are more likely to speak with a GA accent. These variations, however, are insignificant in comparison to the differences between the accents used by the main characters and those used by the supporting and marginal characters. Pixar, therefore, appears to make use of accent to build character mainly for those characters who are only given a small proportion of the screen time and lines, and as a result rely more strongly on linguistic stereotypes to build character easily and quickly.

4.6.2 The statistical strength and significance of the correlation

The association between the size of the role of a character and their accent is significant at a significance level of $p<0.05$. It is therefore unlikely that the correlation between accent and the size of the character's role is coincidental. However, while there is strong evidence that the relationship between accent and the size of the role is not coincidental, the strength of the association between these variables is not very strong, as is evident from the table below:

		Value	Approx. Sig.
Nominal by Nominal	Cramer's V	.138	.030
N of Valid Cases		525	

Table 4.23 The strength and significance of the correlation between accent and the size of the role of the character

A calculation in SPSS yielded a Cramer's V coefficient of 0.138, which means that the correlation between accent and role size is on the low end of the scale.

Since neither Lippi-Green (1997) nor Sønnesyn (2011) explores the relevance of the size of a character's role no comparison can be made between Pixar and Disney.

5. Discussion and conclusion

5.1 Discussion

Chapter 4 uncovered a number of correlations between accent and the variables setting, age, gender, the nature of the character and the size of the role of the character. For example, female Pixar characters are more likely to speak with standard GA accents than male characters, who in turn tend to speak more often with regional American accents. In fact, this is the most significant difference between the accents used by male and female characters. Age is correspondingly expressed by a distinction between the standard, GA, on the one hand and non-standard regional or non-American varieties on the other hand. Children, and to a lesser extent characters whose ages are unclear, are restricted to fewer accent types, and the majority of these characters speak with GA accents. Main characters are similarly restricted in their accent choices. While supporting and marginal characters make use of accents from each of the six accent groups, an overwhelming majority of the main characters speak with GA accents; in fact, only 9 out of 34 main characters speak with other accents. Each of the six accent groups, on the other hand, are present in every type of setting, with only one exception; there are no speakers of American sociolects present in the films with non-English-speaking settings. However, this does not mean that each accent type is used in equal amounts in each type of setting. Setting, in fact, is largely conveyed by non-native English accents or non-American native accents. For instance, in the films *Brave* (2012) and *Ratatouille* (2007) many of the characters speak with Scottish and French accents, respectively. Finally, the nature of a character is mostly expressed by means of regional American accents and to a lesser extent by non-native English accents. Both the characters with evil and mixed natures make more use of regional American accents than the good or neutral characters, and the evil characters make more use of non-native accents than the any of the other characters.

However, it needs to be noted that not all of the patterns discussed above are equally strong or significant. For instance, while the correlations between accent/setting and accent/age are statistically significant at a significance level of $p<0.01$, the association between nature of the characters and their accents is so weak it is not statistically significant. The nature of a character, the size of the role, gender, age and setting in increasing amounts correlate with accent in Pixar animation. Of the five variables

investigated in this thesis, the nature of characters is therefore the least strongly associated with accent; this is somewhat ironic if one considers that a number of previous studies focus specifically on the correlation between accent and nature (Lippi-green, 1997; Dobrow & Gidney, 1998). Regardless of a number of differences between the strength and significance of the correlations between the variables and the characters' accents, all of the five variables are at least weakly associated with accent.

While the five variables investigated do not correlate with accent to the same extent, there are also similarities in the patterns between accent and setting, gender, age, nature of the character and size of the role that needs to be acknowledged. The most important of these similarities is that a distinction seems to be made between GA and the other accent types. This should not come as a surprise, as it was suggested in Chapter 2 that GA is the most neutral accent choice Pixar could make, and as a result the other accent types are more likely tools for linguistic character building. The contrast between speakers of GA accents and other speakers is most distinctive in patterns regarding age, gender and size of the role. Women, children and main characters are all more likely to speak with GA accents than any other types of characters. As the linguistic intergroup bias, the accessibility hypothesis, the social connotations hypothesis and the enforced norm hypothesis all suggest that GA is the highest-valued language variety for American audiences, it is not surprising that women, children and main characters mostly speak with GA accents (Maass & Arcuri, 1996; van Bezooijen, 1997; Giles & Niedzielski, 1998; Wigboldus, 1998). While women tend to show a similar pattern in real linguistic situations, it is likely that norms regarding American varieties dictate the accents used by children and main characters (Chambers, 2009; Meyerhoff, 2011; Van Herk, 2012). Norms dictate that GA is seen as the "correct" and standard accent and creating more children and main characters with other accents would not agree with those norms (Chambers, 2009). While increased use of non-GA accents for both the children and the main characters would not coincide with language norms, increased use of non-GA accents would be particularly noticeable for the main characters, as they receive the most attention throughout the films.

However, Pixar's seeming unwillingness to create women, children or main characters who speak with non-GA accents does not prevent them from making use of various accents for other character groups. The two variables in which this becomes apparent are setting and nature of the character. For instance, a greater proportion of the characters who occur

in films set completely or partly in non-English-speaking countries speak with non-native English accents than those that occur in films with exclusively English-speaking settings. Films set in English-speaking countries other than United States equally contain a greater percentage of speakers of non-American native accents. The otherness evoked by non-native or non-American varieties is, therefore, used to increase awareness of setting of the film and ethnicities of the characters.

Surprisingly, the otherness of non-American and non-native English accents is not the main tool used to convey the nature of characters. While proportionally more evil than good characters speak with non-native English accents, even more villains and characters with mixed natures speak with regional American accents. This is quite surprising, as the linguistic intergroup bias and accessibility hypothesis would both suggest that non-native accents are more prone to attract negative connotations (Mass & Arcuri, 1996; van Bezooijen, 1997; Wigboldus, 1998). It appears, however, that Pixar instead chooses to make use of accents that are more familiar to American audiences, and the correlation between accent and nature is, therefore, more in keeping with the social connotations hypothesis and the enforced norm hypothesis (van Bezooijen, 1997; Giles & Niedzielski, 1998). As such, Pixar relies most strongly on regional American accents to communicate negative motivations of characters.

Disney, on the other hand, relies mostly on the use of non-native accents to convey the nature of characters. The correlation between accent and nature of the characters in Disney animation uncovered by Lippi-Green (1997) is both more significant and stronger than that in Pixar feature animation. Disney's use of accent to communicate the nature of characters is, therefore, more in keeping with the linguistic intergroup bias and accessibility hypothesis than Pixar's use of accent is. This, however, is only one way in which Disney's use of accent differs from that of Pixar. As was discussed previously, the strongest and most significant correlation in Pixar animation is that between accent and setting. In Lippi-Green's (1997) exploration of Disney animation, however, the correlation between accent and nature is stronger than that between accent and setting. In fact, the correlation between accent and setting is less than half as strong in Disney than Pixar animation.

The fact that Lippi-Green's (1997) study reveals that Disney and Pixar make use of accent in dissimilar ways when it comes to setting, and the nature of characters would suggest that Disney and Pixar use accent to build character differently. However, it needs to be noted

that the films in Lippi-Green's (1997) corpus all antedate the films in the corpus of the present study. The differences between Lippi-Green's results and the findings of the present research could, therefore, be the result of changes over time in the way language is perceived. It is therefore unclear whether the differences between Disney's and Pixar's use of accent are also the result of changes over time or solely of differences between studios. Since Sønnesyn's (2011) research explores neither setting nor nature of character as a variable, this study gives no insight into whether the variation between Disney's and Pixar's use of accent to convey setting of films and nature of characters is the result of changed language attitudes or of differences between the two studios.

On the other hand, Sønnesyn (2011) does present data about the correlation between accent and gender. While the pattern is slightly less pronounced in Disney than in Pixar animation, the overall template of male and female use of the various accent types is the same in Sønnesyn's study and this thesis. This could, therefore, be an indication that the differences between Lippi-Green's (1997) data and the results of this thesis are the result of language attitudes over time. However, as Lippi-Green (1997) and Sønnesyn (2011) investigated different variables, it is difficult to draw conclusions from their results. It, therefore, remains unclear whether Pixar and Disney make use of accent for the purpose of linguistic character building in different ways.

5.2 Conclusion

The aim of this thesis was to investigate whether Pixar feature animation makes use of accent as tool for linguistic character building. It was further of interest of this study whether Pixar's use of accent as a means for character building differs from that in Disney animation. Before these two main questions are answered, five sub-questions that were posed to help answer the main questions will be resolved:

> **Is there a correlation between the settings of Pixar films and the accents of their characters?**

As was expected, the accents used by characters varied according to the setting of the film they occurred in. The most notable pattern is that more characters spoke with non-native and non-American native English accents if they appeared in a film set wholly or partly in a non-English-speaking country or an English-speaking country other than United States, respectively. As such, the otherness conveyed by non-native and non-American

accents were used to communicate the setting of the films and often also the ethnicity of the characters.

Is there a correlation between the use of accent in Pixar films and the gender of the characters?

As hypothesised in 2.5 and not unlike the patterns found throughout the English-speaking world, female Pixar characters tend to make more use of the standard GA accent than male Pixar characters (Chambers, 2009; Meyerhof, 2011; Van Herk, 2012). Male characters, on the other hand, make significantly more use of regional American accents.

Is there a correlation between the use of accent in Pixar films and the age of the characters?

Contrary to the hypothesis, the pattern Pixar creates between the ages of characters and the accents they use is unlike what would be encountered in real linguistic situations. While adults, specifically those who enter the job market, are generally the group that makes most use of standard language varieties, in Pixar animation the child characters are by far the most homogenous group of speakers (Chambers, 2009; Meyerhof, 2011). All but 9 out of the total of 86 children in Pixar features speak with a GA accent. This might hint at avoidance of creating child characters with non-standard accents on Pixar's part. However, it is unclear whether this avoidance is conscious.

Is there a correlation between the use of accent in Pixar films and the nature of the characters?

Much as hypothesised, the various accent types are not evenly distributed among good, evil, mixed and neutral characters. Villains make more use of non-native accents than good characters, but they make even more use of regional American accents. Similarly, characters with mixed natures make more use of regional American accents. In fact, out of the four groups, the characters with mixed natures make most use of regional American accents. This is not at all in keeping with what one would expect from the linguistic intergroup bias and the accessibility hypothesis (Mass & Arcuri, 1996; van Bezooijen, 1997; Wigboldus, 1998). Both these theories would suggest a strong tendency to stigmatise unfamiliar varieties. However, Pixar seems to make use of more familiar stereotypes provided by social connotations and language norms familiar to American language users (Giles & Niedzielski, 1998).

Is there a correlation between the use of accent in Pixar films and the size of the characters' roles?

Not wholly unexpectedly, Pixar's main characters have a strong tendency to speak with GA accents. Both supporting and marginal characters make use of a wide array of accents, while main characters all but a few exceptions speak with GA accents. It is possible Pixar avoids non-GA accents when they create main character, because language norms depend on main characters that speak with "correct" accents (Chambers, 2009). However, it could also be that there is less need to draw on linguistic stereotypes when creating main characters, because they get enough screen time to develop their character non-linguistically; supporting and marginal characters, on the other hand, receive less attention and subsequently promote more linguistic stereotypes than main characters

Do Pixar animated features make use of accent as a means of building character?

The five research questions that were answered above all revealed that accent correlates with non-linguistic variables in Pixar animated features. All of these correlations except for the one between accent and nature of the character are statistically relevant. However, even though the association between accent and nature is not statistically relevant, the Cramer's V coefficient for this pattern indicates that there is nonetheless a correlation between these two variables, albeit not a particularly strong one. While the strength of correlation between accent and the investigated variables varies, Pixar does make use of accents to build character. The varying patterns between accent and the variables have one thing in common: GA is the most neutral accent a character can use and as a result the other varieties are the tools Pixar uses for linguistic character building.

Are there considerable differences between the use of accent in Pixar animation and the use of accent in Disney animation?

No conclusive answer can be given to this question. The variation between Lippi-Green's (1997) results regarding the correlation between accent and setting of the film as well as accent and nature of the character and the present study would strongly suggest that Pixar and Disney make use of accent differently. However, the data of Lippi-Green's (1997) research concern films that pre-date those in the corpus of this thesis. It would, therefore, be possible that those differences are the result of a change in how animation studios make use of accent over time. This possibility could be discarded if Sønnesyn's (2011) more recent data differed significantly from that in the present study. However, modern Disney films

display a pattern between accent and gender that is largely the same as the one that was uncovered in Pixar animation. Since Sønnesyn (2011) did not investigate the variables setting and nature of the character, it is unclear if Disney has changed its use of accent to convey setting or nature. As a result, it is impossible to determine whether there are any significant differences between Pixar's and Disney's use of accent without further research.

5.3 Methodological limitations

In order to analyse the results, it was necessary to create general categories for each variable. Although optimal care was taken to create transparent and objective categories for each of the variables, grouping continuous variables into restrictive groups cannot be called ideal. While gender would not typically be considered continuous, although there are those who argue it is, the other variables are continuous. Age is the most obviously continuous variable, but even the setting of the film, the nature of the characters and the size of roles of the characters are continuous. While rough divisions can be made as to whether a character is good or bad, a character has a main or supporting role, or a film is set in an English-speaking country or some other location, within these groups variation remains; not all evil characters are equally evil nor are all the films set in English-speaking countries set in the same English-speaking country. As a result, the categories that were opted for in this study are more general than might be ideal. This is particularly the case for categories for the variable age: children, adults and elderly. Sociolinguistic studies have revealed that the life stages adolescence and young adulthood are often stages in which language use changes (Chambers, 2009; Meyerhof, 2011). It might, therefore, have been useful to distinguish the age of characters into more than three age groups. However, as age is difficult to determine for an animated character this proved impractical.

Another complication surfaced in the comparison of Pixar's and Disney's use of accent. Although Lippi-Green's (1997) and Sønnesyn's (2011) studies are similar to this thesis, their methodologies and the variables they investigate differ significantly both from each other and from the present study. This made it difficult to comment on the differences between Pixar's and Disney's use of accent. In hindsight it would have been more prudent to investigate both Disney and Pixar in the present study to enable a more reliable and telling comparison between the two studios.

5.4 Implications for further research

A great many angles of linguistic character building have yet to be researched. For example, it would be useful to explore the role language in general and accent in particular in various genres. Action films might well prove to champion different stereotypes than romantic comedies, for instance.

It would further be relevant to investigate the use of accent in productions from different countries. As American film is globally very dominant, the majority of the limited research in existence focuses on American productions. However, as language attitudes differ widely from one nation to another, the way accent is represented in film is likely to vary too. For this reason, it would be worthwhile to investigate the effect the origin of a production company has on the representation of accent in film.

Yet most significant of all would be an exploration of the origins of linguistic character building. It is at this time unclear whether the stereotypes that are used as sources for linguistic character building reflect the attitudes of the viewers and as such change when society's attitude changes. While differences found between Lippi-Green (1997) and Sønnesyn (2011) would suggest that some change does take place, not enough information is available as to whether these changes reflect the attitudes held by society at large. It would, therefore, be intriguing to investigate the use of accent in productions from different eras and compare those to the contemporary language attitudes.

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Index to appendices A to N

Gender:

M=Male

F=Female

Age:

A=Adult

E=Elderly

C=Child

UC=Unclear

Character's nature:

G=Good

E=Evil

M=Mixed

N=Neutral

Character's role:

Main=Main

S=Supporting

Marg=Marginal

Accent:

AAVE=African American Vernacular English accent

Af=African accented English

Au=Australian accent

Ca=Canadian accent

EE=Eastern European accented English

F=Foreign accent of unknown origin

Fr=French accented English

G=German accented English

GA=General American accent

In=Indian or Pakistani accented English

It=Italian accented English

J=Japanese accented English

NE=North Eastern USA accent

RB=Regional British English accent

RP=Received Pronunciation accent

S= Southern USA accent

Sc=Scottish accent

Sp=Spanish accented English

Su=Surfer sociolect

Appendix A: *Toy Story* (1995) characters

Setting: United States.

Character:	Voiced by:	Gender:	Age:	Character's nature:	Character's role:	Accent:
Andy Davis	John Morris	M	C	N	S	GA
Woody	Tom Hanks	M	UC	G	Main	GA
Mr Potato Head	Don Rickles	M	UC	M	S	NE
Hamm	John Ratzenberger	M	UC	M	S	GA
Sergeant	R. Lee Erney	M	UC	N	S	GA
Slinky Dog	Jim Varney	M	UC	M	S	S
Rex	Wallace Shawn	M	UC	M	S	GA
Bo Peep	Annie Pots	F	UC	M	S	S
Mrs Davis	Laurie Metcalf	F	A	N	S	GA
Soldier	?	M	UC	N	Marg	GA
Buzz Lightyear	Tim Allen	M	UC	G	Main	GA
Shark	Jack Angel	M	UC	N	Marg	GA
Lenny the binoculars	Joe Ranft	M	UC	M	Marg	NE
Sid Phillips	Erik von Detten	M	C	E	S	GA
Hannah Phillips	Sarah Freeman	F	C	N	S	GA

Appendix B: *A Bug's Life* (1998) characters

Setting: linguistically undetermined (ant colony and a bug city).

Character:	Voiced by:	Gender:	Age:	Character's nature:	Character's role:	Accent:
Ant 1	?	M	A	G	Marg	GA
Ant 2	?	M	A	G	Marg	GA
Mr Soil	Roddy McDowall	M	A	G	S	RP
Dr Flora	Edie McClurg	F	A	G	S	S
Atta	Julia Louis-Dreyfus	F	A	G	S	GA
Queen	Phylis Diller	F	E	G	S	GA
Thorny	Alex Rocco	M	A	G	S	NE
Ant boy 1	?	M	C	G	S	GA
Dot	Hayden Panettiere	F	C	G	S	GA
Cornelius	David Osman	M	E	G	S	GA
Flik	Dave Foley	M	A	G	Main	GA
Molt	Richard Kind	M	A	M	S	NE
Hopper	Kevin Spacey	M	A	E	S	GA
Rosie	Bonnie Hunt	F	A	G	S	GA
Dim	Brad Garrett	M	A	G	Marg	GA
Fly mother	?	F	A	N	Marg	GA
Fly 1	?	M	A	N	Marg	NE
P.T. Flea	John Ratzenberger	M	A	N	S	GA
Popcorn vendor	?	M	A	N	Marg	NE
Heimlich	Joe Ranft	M	A	G	S	G
Slim	David Hyde Pierce	M	A	G	S	GA
Fly 2	?	M	A	N	Marg	NE
Francis	Denis Leary	M	A	G	S	GA
Gypsy Moth	Madeline Kahn	F	A	G	S	RP
Manny	Jonathan Harris	M	A	G	S	RP
Tuck	Michael Shane	M	A	G	S	EE
Roll	Michael Shane	M	A	G	S	EE
Fly 3	?	M	A	N	Marg	GA
Fly 4	?	M	A	N	Marg	GA
Fly 5	?	M	A	N	Marg	GA
Bug zapper bug	John Lasseter	M	A	N	Marg	GA

Bug zapper bug Harry	Andrew Stanton	M	A	N	Marg	GA
Tor bus	?	M	A	N	Marg	NE
Slug 1	?	M	A	N	Marg	NE
Bouncer wasp	?	M	A	N	Marg	NE
Fly 6	?	M	A	N	Marg	NE
Fly 7	?	M	A	N	Marg	NE
Beetle	?	M	A	N	Marg	NE
Cockroach waitress	Mickie McGowan	F	A	N	Marg	NE
Bug waitress	?	F	A	N	Marg	GA
Slug 2	?	M	A	N	Marg	GA
Fly 8	?	M	A	N	Marg	NE
Harry Mosquito	Rodger Bumpass	M	A	N	Marg	NE
Daisy	?	F	C	G	Marg	GA
Ant boy 2	?	M	C	G	Marg	GA
Ant boy 3	?	M	C	G	Marg	GA
Ant boy 4	?	M	C	G	Marg	GA
Lead Blueberry scout	Ashley Tisdale	F	C	G	Marg	GA
Grasshopper 1	?	M	A	E	Marg	S
Grasshopper 2	?	M	A	E	Marg	GA
Grasshopper 3	?	M	A	E	Marg	GA
Grasshopper 4	?	M	A	E	Marg	GA
Grasshopper 5	?	M	A	E	Marg	GA
Grasshopper 6	?	M	A	E	Marg	GA

Appendix C: *Toy Story 2* (1999) characters

Setting: United States.

Character:	Voiced by:	Gender:	Age:	Character's nature:	Character's role:	Accent:
Buzz Lightyear	Tim Allen	M	UC	G	Main	GA
Rex	Wallace Shawn	M	UC	G	Main	GA
Woody	Tom Hanks	M	UC	G	Main	GA
Sergeant	R Lee Ermey	M	UC	N	Marg	GA
Hamm	John Ratzenberger	M	UC	G	Main	GA
Bo Peep	Annie Pots	F	UC	N	S	S
Mr Potato Head	Don Rickles	M	UC	G	Main	NE
Mrs Potato Head	Esstelle Harris	F	UC	N	S	NE
Andy Davis	John Morris	M	C	N	S	GA
Mrs Davis	Laurie Metcalf	F	A	N	S	GA
Slinky Dog	Jim Varney	M	UC	G	Main	S
Child at yard sale	?	F	C	N	Marg	GA
Mother at yard sale	Mickie McGowan	F	A	N	Marg	GA
Al the toy collector	Wayne Knight	M	A	E	S	NE
Wheezy	Joe Ranft	M	UC	N	S	NE
Jessie the yodelling cowgirl	Joan Cusack	F	UC	N	S	GA
Geri the cleaner	Jonathan Harris	M	E	N	Marg	GA
Al's toy barn employee	?	M	A	N	Marg	NE
Buzz Lighyear 2	Tim Allen	M	UC	M	S	GA
Tour Guide Barbie	Jodi Benson	F	UC	N	Marg	GA
Red Rock 'Em Sock 'Em Robot	Lee Unkrich	M	UC	N	Marg	GA
Blue Rock 'Em Sock 'Em Robot	John Lassater	M	UC	N	Marg	GA

Airline rep	Phil Proctor	M	A	N	Marg	GA
Barbie in bag	?	F	UC	N	Marg	GA
Luggage guy 1	?	M	A	N	Marg	GA
Luggage guy 2	?	M	A	N	Marg	RP
Luggage guy 3	?	M	A	N	Marg	GA

Appendix D: *Monsters, Inc.* (2001) characters

Setting: linguistically undetermined (universe behind our closet doors and some segments in the real world, for example, the Himalayas).

Character:	Voiced by:	Gender:	Age:	Character's nature:	Character's role:	Accent:
Robot boy	?	M	C	N	Marg	GA
Flint	Bonnie Hunt	F	A	N	Marg	GA
Monster Bile	Jeff Pidgeon	M	A	N	Marg	GA
Yellow monster	?	M	A	N	Marg	GA
Mike Wazowski	Billy Crystal	M	A	G	Main	NE
James P "Sully" Sullivan	John Goodman	M	A	G	Main	GA
Betty	?	F	A	N	Marg	GA
Monster floor manager	Steve Susskind	M	A	N	S	NE
Tiny monster wife	?	F	A	N	Marg	GA
Tiny monster husband	?	M	A	N	Marg	NE
Monster child	?	M	C	N	Marg	GA
Toni	?	M	A	N	Marg	It
Blobby	?	M	A	N	Marg	GA
Ricky	?	M	A	N	Marg	GA
Monster Needleman	Daniel Gerson	M	A	N	Marg	GA
Monster Smitty	Daniel Gerson	M	A	N	Marg	GA
Celia	Jenifer Tilly	F	A	N	S	GA
Randall Boggs	Steve Buscemi	M	A	E	S	GA
Roz	Bob Peterson	F	E	G	S	GA
Fungus	Frank Oz	M	A	E	S	GA
Charlie	Phil Proctor	M	A	N	Marg	GA
George Sanderson	Samuel Lord Black	M	A	N	S	Ca
CDA monster 04114	?	M	A	G	Marg	GA

CDA monster 00897	?	M	A	G	Marg	GA
Waiter monster	?	M	A	N	Marg	GA
Shusi chef monster	?	M	A	N	Marg	GA
CDA monster 1	?	M	A	G	Marg	GA
CDA monster 00002	?	M	A	G	Marg	GA
Monster news announcer	?	M	A	N	Marg	GA
Monster witness 1	?	M	A	N	Marg	S
Monster witness 2	?	M	A	N	Marg	S
Monster witness 3	?	M	A	N	Marg	GA
Monster psychologist	?	M	A	N	Marg	G
Frank	?	M	A	N	Marg	GA
CDA monster 00112	?	M	A	G	Marg	GA
CDA monster 2	?	M	A	G	Marg	GA
CDA monster 3	?	M	A	G	Marg	GA
CDA monster 4	?	M	A	G	Marg	GA
Monster 2	?	M	A	N	Marg	GA
Kindergarten teacher monster	?	F	A	N	Marg	GA
The Abominable Snowman	John Ratzenberger	M	A	N	Marg	GA

Appendix E: *Finding Nemo* (2003) characters

Setting: linguistically undetermined (oceans surrounding Australia and some segments in Sydney, Australia).

Character:	Voiced by:	Gender:	Age:	Character's nature:	Character's role:	Accent:
Marlin	Albert Brooks	M	A	G	Main	GA
Coral	Elizabeth Perkins	F	A	N	Marg	GA
Nemo	Alexander Gould	M	C	G	Main	GA
Mother fish	?	F	A	N	Marg	GA
Crab boy	?	M	C	N	Marg	GA
Bob	?	M	A	N	Marg	GA
Ted	?	M	A	N	Marg	GA
Bill	?	M	A	N	Marg	NE
Pearl	Erica Beck	F	C	N	Marg	GA
Tad	Jordan Ranft	M	C	N	Marg	GA
Sheldon	Erik Per Sullivan	M	C	N	Marg	GA
Mr Ray	Bob Peterson	M	A	N	S	GA
Dory	Ellen DeGeneres	F	A	G	S	GA
Bruce	Barry Humphries	M	A	E	Marg	Au
Anchor	Eric Bana	M	A	G	Marg	Au
Chum	Bruce Spense	M	A	G	Marg	Au
Dentist	Bill Hunter	M	A	E	S	Au
Barbara	?	F	A	N	Marg	Au
Bubbles	Stephen Root	M	A	G	S	F
Peach	Allison Janney	F	A	G	S	GA
Jacques	Joe Ranft	M	A	G	S	Fr
Bloat	Brad Garrett	M	A	G	S	GA
Gurgle	Austin Pendleton	M	A	G	S	GA
Deb	Vicki Lewis	F	A	G	S	GA
Gill	Willem Dafoe	M	A	G	S	NE
Nigel	Geoffrey Rush	M	A	G	S	Au
School of Moonfish	John Ratzenberger	M	A	N	Marg	GA

Crush	Andrew Stanton	M	A	G	Marg	Su
Squirt	Nicholas Bird	M	C	N	Marg	GA
Turtle 3	?	M	C	N	Marg	GA
Turtle 4	?	F	C	N	Marg	GA
Turtle 5	?	M	C	N	Marg	GA
Turtle 6	?	M	C	N	Marg	GA
Turtle 7	?	F	C	N	Marg	GA
Turtle 8	?	M	C	N	Marg	GA
Fish 1	?	M	A	N	Marg	GA
Lobster	?	M	A	N	Marg	NE
Swordfish	?	M	A	N	Marg	RP
Female bird	?	F	A	N	Marg	RP
Male bird 1	?	M	A	N	Marg	Au
Male bird 2	?	M	A	N	Marg	Au
Pelican 1	?	M	A	N	Marg	Au
Pelican 2	?	M	A	N	Marg	Au
Crab 1	?	M	A	N	Marg	Au
Crab 2	?	M	A	N	Marg	Au
Fish 2	?	M	A	N	Marg	NE

Appendix F: *The Incredibles* (2004) characters

Setting: United States.

Character:	Voiced by:	Gender:	Age:	Character's nature:	Character's role:	Accent:
Bob Parr "Mr. Incredible"	Craig Nelson	M	A	G	Main	GA
Helen Parr "Elestigirl"	Holly Hunter	F	A	G	Main	GA
Lucius Best "Frozone"	Samuel Jackson	M	A	G	S	AAVE
Old Lady	?	F	E	N	Marg	Au
Police Officer 1	?	M	A	N	Marg	GA
Police Officer 2	?	M	A	N	Marg	GA
Buddy Pine "Syndrome"	Jason Lee	M	A	E	S	GA
Thief	?	M	A	E	Marg	NE
Oliver Sansweet	?	M	A	E	Marg	NE
Reverend	?	M	E	N	Marg	GA
Sansweet's lawyer	?	M	A	E	Marg	NE
Mr Incredible's lawyer	?	M	A	G	Marg	GA
Female politician	?	F	A	E	Marg	GA
Mrs. Hogenson	Jean Sincere	F	E	N	Marg	GA
Gilbert Huph	Wallace Shawn	M	A	E	Marg	GA
Dash's principal	Wayne Canney	M	A	N	Marg	GA
Bernie Kropp	Lou Romano	M	A	N	Marg	NE
Dashiell 'Dash' Parr	Spencer Fox	M	C	G	Main	GA
Boy	?	M	C	N	Marg	GA
Girl	?	F	C	N	Marg	GA
Tony Rydinger	Michael Bird	M	C	N	Marg	GA
Voilet Parr	Sarah Vowell	F	C	G	Main	GA
Mirage	Elizabeth Peña	F	A	M	S	F

Police Officer 3	?	M	A	N	Marg	GA
Rick Dicker	Bud Luckey	M	E	G	S	GA
Boy on tricycle	?	M	C	N	Marg	GA
Edna 'E' Mode	Brad Bird	F	A	N	S	F
Security guard Edna	?	M	A	N	Marg	GA
Kari McKeen	Bret "Brook' Parker	F	C	N	Marg	GA
Mercenary 1	?	M	A	E	Marg	GA
Mercenary 2	?	M	A	E	Marg	GA
Mercenary 3	?	M	A	E	Marg	GA
Mercenary 4	?	M	A	E	Marg	GA
Woman 1	?	F	A	N	Marg	GA
Woman 2	?	F	A	N	Marg	GA
Woman 3	?	F	A	N	Marg	GA
Frank	?	M	E	N	Marg	GA
Ollie	?	M	E	N	Marg	GA
Violet's friend	?	F	C	N	Marg	GA
The Underminer	John Ratzenberger	M	UC	E	Marg	GA

Appendix G: *Cars* (2006) characters

Setting: United States.

Character:	Voiced by:	Gender:	Age:	Character's nature:	Character's role:	Accent:
Lightning McQueen	Owen Wilson	M	A	G	Main	GA
Mack	John Ratzenberger	M	A	N	S	GA
Antenna sales car	?	M	A	N	Marg	GA
Motorhome 1	Larry Benton	M	A	N	Marg	S
Bob Cutlass	Bob Costas	M	A	N	S	GA
Darrell Cartrip	Darrell Waltrip	M	A	N	S	S
Chick Hicks	Michael Keaton	M	A	E	S	GA
Tia	Elissa Knight	F	A	N	Marg	GA
Mia	Lindsey Collins	F	A	N	Marg	GA
Race car	?	M	A	N	Marg	NE
Chick's coach	?	M	A	E	Marg	GA
Not Chuck	Mike Nelson	M	A	N	Marg	GA
Security car	?	M	A	N	Marg	NE
Kori Turbowitz	?	F	A	N	Marg	GA
Cameraman	?	M	A	N	Marg	NE
Chick crew member 1	?	M	A	E	Marg	GA
Journalist 1	?	M	A	N	Marg	GA
Tex	Humpy Wheeler	M	A	N	Marg	S
The King	Richard Petty	M	A	N	S	S
Mrs. The King	Lynda Petty	F	A	N	Marg	S
Rusty Rust-eze	Tom Magliozzi	M	A	N	Marg	NE
Dusty Rust-eze	Ray Magliozzi	M	A	N	Marg	NE
Fan 1	?	M	A	N	Marg	NE
Fan 2	?	M	A	N	Marg	NE
Fan 3	?	M	A	N	Marg	NE
Fred	Andrew Stanton	M	A	N	Marg	GA
Jerry Recycled Bateries	Joe Ranft	M	A	N	Marg	S
Sherriff	Michael Wallis	M	E	M	S	S
Fillmore	George Carlin	M	A	N	S	GA
Sarge	Paul Dooley	M	E	N	S	GA
News announcer	?	M	A	N	Marg	GA
Journalist 2	?	M	A	N	Marg	GA

Junior	Dale Earnhardt Jr.	M	A	N	Marg	S
Jay Limo	Jay Leno	M	A	N	Marg	GA
Sven the Governator	Jess Harnell	M	A	N	Marg	G
Chuck Manifold	?	M	A	N	Marg	GA
Mater	Daniel Lawrence	M	A	N	S	S
Doc Hudson	Paul Newman	M	E	M	S	GA
Ramone	Cheech Marin	M	A	N	S	Sp
Luigi	Tony Shaloub	M	A	G	S	It
Sally Carrera	Bonnie Hunt	F	A	N	S	GA
Flo	Jenifer Lewis	F	A	N	S	AAVE
Lizzie	Katherine Helmond	F	E	N	S	S
Guido	Guido Quaroni	M	A	G	S	It
Miny	Edie McClurg	F	A	N	Marg	GA
Van	Richard Kind	M	A	N	Marg	NE
Helicopter	?	F	A	N	Marg	GA
Journalist 3	?	M	A	N	Marg	GA
Journalist 4	?	F	A	N	Marg	GA
Journalist 5	?	M	A	N	Marg	GA
Security car	?	M	A	N	Marg	GA
Mario Andretti	Mario Andretti	M	A	N	Marg	It
TV crew	?	M	A	N	Marg	GA
Chick crew member 2	?	M	A	E	Marg	GA
Chick crew member 3	?	M	A	E	Marg	GA
Motorhome 2	?	M	A	N	Marg	S
Camper	?	M	A	N	Marg	S
Michael Schumacher	Michael Schumacher	M	A	N	Marg	G

Appendix H: *Ratatouille* (2007) characters

Setting: rural France and Paris.

Character:	Voiced by:	Gender:	Age:	Character's nature:	Character's role:	Accent:
Anton Ego	Peter O'Toole	M	E	N	S	RP
Remy	Patton Oswald	M	A	G	Main	GA
Emile	Peter Sohn	M	A	G	S	GA
Django	Brian Dennehy	M	E	G	S	NE
Gusteau	Brad Garrett	M	A	N	S	Fr
Waiter	?	M	A	N	Marg	Fr
Lalo	Julius Callahan	M	A	N	S	Af
Collette	Janeane Garafolo	F	A	G	S	Fr
La Rousse	James Remar	M	A	N	S	Fr
Alfredo Linguini	Lou Romano	M	A	G	Main	GA
Skinner	Ian Holm	M	A	E	S	Fr
Horst	Will Arnett	M	A	N	S	G
Mustafa	John Ratzenberger	M	A	N	S	Fr
Movie character 1	?	F	A	N	Marg	Fr
Movie character 2	?	M	A	N	Marg	Fr
Francois Dupuis	Julius Callahan	M	A	N	Marg	In
Talon Labarthe	Teddy Newton	M	A	E	Marg	Fr
Restaurant guest 1	?	M	A	N	Marg	GA
Restaurant guest 2	?	F	A	N	Marg	GA
Restaurant guest 3	?	M	A	N	Marg	GA
Pompidou	Tony Fucile	M	A	N	Marg	Fr
Ambrister Minion	Brad Bird	M	E	N	Marg	RP
Git	Jake Steinfeld	M	A	G	S	NE

Texan Gusteau	Brad Garrett	M	A	N	Marg	S
Mexican Gusteau	Brad Garrett	M	A	N	Marg	Sp
Colonel Gusteau	Brad Garrett	M	A	N	Marg	S
Scottish Gusteau	Brad Garrett	M	A	N	Marg	Sc
Journalist	?	M	A	N	Marg	RP
Health inspector	Tony Fucile	M	A	E	Marg	Fr
Rat	?	F	C	N	Marg	GA

Appendix I: *WALL•E* (2008) characters

Setting: linguistically undetermined (post-apocalyptical earth and outer-space).

Character:	Voiced by:	Gender:	Age:	Character's nature:	Character's role:	Accent:
Passenger 1	?	M	A	N	Marg	GA
Passenger 2	?	M	A	N	Marg	NE
Passenger 3	?	M	A	N	Marg	GA
Passenger 4	?	F	A	N	Marg	GA
Passenger 5	?	M	A	N	Marg	GA
Passenger 6	?	M	A	N	Marg	GA
Passenger 7	?	M	A	N	Marg	GA
Passenger 8	?	M	A	N	Marg	GA
John	John Ratzenberger	M	A	N	S	GA
Robot steward	Teddy Newman	M	UC	E	Marg	GA
Mary	Kathy Najimy	F	A	N	S	GA
Captain	Jeff Garlin	M	A	G	S	GA

Appendix J: *Up* (2009) characters

Setting: United States and South America.

Character:	Voiced by:	Gender:	Age:	Character's nature:	Character's role:	Accent:
Charles Muntz	Christopher Plummer	M	E	E	S	GA
Young Carl	Jeremy Leary	M	C	N	Marg	GA
Young Ellie	Elie Doctor	F	C	N	Marg	GA
Carl Fredricksen	Edward Asner	M	E	G	Main	GA
Construction foreman Tom	John Ratzenberger	M	A	N	Marg	GA
Russell	Jordan Nagai	M	C	G	S	GA
Construction worker Steve	Danny Mann	M	A	N	Marg	GA
Police officer Edith	Mickie McGowan	F	A	N	Marg	GA
Nurse George	Donald Fullilove	M	A	N	Marg	GA
Nurse AJ	Jess Harnell	M	A	N	Marg	S
Dug	Bob Peterson	M	UC	G	S	GA
Gamma	Jerome Ranft	M	UC	E	S	GA
Beta	Delroy Lindo	M	UC	E	S	AAVE
Dog 1	?	M	UC	M	Marg	GA
Dog 2	?	M	UC	M	Marg	GA
Dog 3	?	M	UC	M	Marg	GA
Dog 4	?	M	UC	M	Marg	GA
Dog 5	?	M	UC	M	Marg	GA
Dog 6	?	M	UC	M	Marg	GA
Camp master Strauch	Pete Doctor	M	A	N	Marg	GA

Appendix K: *Toy Story 3* (2010) characters

Setting: United States.

Character:	Voiced by:	Gender:	Age:	Character's nature:	Character's role:	Accent:
Mr Potato Head	Don Rickles	M	UC	G	Main	NE
Woody	Tom Hanks	M	UC	G	Main	GA
Mrs Potato Head	Estelle Harris	F	UC	G	Main	NE
Jessie the yodelling cowgirl	Joan Cusack	F	UC	G	Main	GA
Buzz Lightyear	Tim Allen	M	UC	M	Main	GA
Hamm	John Ratzenberger	M	UC	G	Main	GA
Young Andy Davis	Charlie Bright	M	C	N	S	GA
Mrs. Davis	Laurie Metcalf	F	A	N	S	GA
Older Andy Davis	John Morris	M	C	N	S	GA
Molly Davis	Beatrice Miller	F	C	N	S	GA
Rex	Wallace Shawn	M	UC	G	Main	GA
Slinky Dog	Blake Clark	M	UC	G	Main	S
Sergeant	R. Lee Emrey	M	UC	N	Marg	GA
Soldier 1	?	M	UC	N	Marg	GA
Soldier 2	?	M	UC	N	Marg	GA
Barbie	Jodi Benson	F	UC	G	S	GA
Bonnie	Emily Hahn	F	C	N	S	GA
Teacher	?	F	A	N	Marg	GA
Bonnie's mother	Lori Alan	F	A	N	S	GA
Jack in box	?	M	UC	N	Marg	GA
Lotso	Ned Beatty	M	UC	E	S	S
Ken	Michael Keaton	M	UC	M	S	GA
Cleaner	?	M	E	N	Marg	GA
Buttercup	Jeff Gralin	M	UC	N	S	GA
Trixie	Kirsten Schaal	F	UC	N	S	GA
Mr. Pricklepants	Timothy Dalton	M	UC	N	S	RP
Dolly	Bonnie Hunt	F	UC	N	S	GA
Pea in a Pod 1	Amber Kroner	F	UC	N	Marg	GA

Pea in a Pod 2	Brianna Maiwand	F	UC	N	Marg	GA
Pea in Pod 3	Charlie Bright	M	UC	N	Marg	GA
Stretch	Whoopi Goldberg	F	UC	M	Marg	AAVE
Twitch	John Cygan	M	UC	M	Marg	NE
Chunk	Jack Angel	M	UC	M	Marg	NE
Bookworm	Richard Kind	M	UC	N	Marg	NE
Chuckles	Bud Luckey	M	UC	N	Marg	GA
Chatter Telephone	Teddy Newton	M	UC	N	Marg	NE
Garbage man 1	?	M	A	N	Marg	GA
Garbage man 2	?	M	A	N	Marg	GA
Frog	?	M	UC	N	Marg	GA

Appendix L: *Cars 2* (2011) characters

Setting: United States, Tokyo, Italy and London.

Character:	Voiced by:	Gender:	Age:	Character's nature:	Character's role:	Accent:
Leland Turbo	Jason Isaacs	M	A	G	Marg	RP
Crabby	Sig Hansen	M	A	N	Marg	GA
Finn McMissile	Michael Kane	M	A	G	S	RP
Combat Ship	Lloyd Sherr	M	A	E	Marg	NE
Professor Zündapp	Thomas Kretschmann	M	A	E	S	G
Car 1	?	M	A	E	Marg	NE
Grem	Joe Mantegna	M	A	E	S	NE
Acer	Peter Jacobson	M	A	E	S	NE
Mater	Daniel Lawrence	M	A	G	Main	S
Otis	Jeff Garlin	M	A	N	Marg	GA
Luigi	Tony Shalhoub	M	A	G	S	It
Flo	Jenifer Lewis	F	A	G	S	AAVE
Fillmore	Lloyd Sherr	M	A	G	S	GA
Sarge	Paul Dooley	M	E	G	S	GA
Sherriff	Michael Wallis	M	E	G	S	S
Lizzie	Katherine Helmond	F	E	N	Marg	S
Ramone	Cheech Marin	M	A	G	S	Sp
Mack	John Ratzenberger	M	A	N	Marg	GA
Sally	Bonnie Hunt	F	A	G	S	GA
Lightning McQueen	Owen Wilson	M	A	G	Main	GA
Guido	Guido Quaroni	M	A	G	S	It
Mel Dorado	Patrick Walker	M	A	N	Marg	GA
Sir Miles Axlerod	Eddie Izzard	M	A	E	S	RP
Francesco Bernoulli	John Turturro	M	A	N	S	It
Lewis Hamilton	Lewis Hamilton	M	A	N	Marg	RP
Jeff Gorvette	Jeff Gordon	M	A	N	Marg	GA
Holley Shiftwell	Emily Mortimer	F	A	N	S	RP
Wasabi forklift	?	M	A	N	Marg	J
Rod Redline	Bruce Cambell	M	A	G	Marg	NE

Brent Mustangburger	Brent Musburger	M	A	N	Marg	GA
David Hobbscap	David Hobbs	M	A	N	Marg	RP
Darrell Cartrip	Darrell Waltrip	M	A	N	Marg	S
Journalist 1	?	F	A	N	Marg	GA
Siddeley	Jason Isaacs	M	A	N	Marg	RP
Merchant 1	?	M	A	N	Marg	Fr
Merchant 2	?	M	A	N	Marg	Fr
Merchant 3	?	M	A	N	Marg	Fr
Merchant 4	?	F	A	N	Marg	Fr
Tomber	Michel Michelis	M	A	N	Marg	Fr
Uncle Topolino	Franco Nero	M	E	N	Marg	It
Mama Topolino	Vanessa Redgrave	F	E	N	Marg	It
Stephenson the train	?	M	A	N	Marg	RP
Alexander Hugo	Velibor Topic	M	A	E	Marg	EE
Ivan the tow truck	Stanley Townsend	M	A	E	Marg	EE
Victor Hugo	Stanley Townsend	M	A	E	S	EE
Craps Croupier	?	M	A	N	Marg	It
Gambler	?	M	A	N	Marg	GA
Cigarette girl	?	F	A	N	Marg	It
Vladimir Trunkov	Stanley Townsend	M	A	E	Marg	EE
J. Curby Gremlin	John Mainieri	M	A	E	S	NE
Tubbs Pacer	Brad Lewis	M	A	E	Marg	NE
Security car 1	?	M	A	N	Marg	It
Security car 2	?	M	A	N	Marg	It
Press liaison 1	?	F	A	N	Marg	It
Press liaison 2	?	M	A	N	Marg	It
Journalist 3	?	M	A	N	Marg	GA
Security car 3	?	M	A	N	Marg	RP
Car 2	?	M	A	E	Marg	GA
Corporal	?	M	A	G	Marg	RB
Queen	?	F	E	N	Marg	RP
Queen’s guard 1	?	M	A	N	Marg	RP
Queen’s guard 2	?	M	A	N	Marg	RP

Queen's guard 3	?	M	A	N	Marg	RP
Prince Wheeliam	?	M	A	N	Marg	RP
Queen's guard 4	?	M	A	N	Marg	RP
Lord Steward	?	M	A	N	Marg	RP
Minny	Eddie McClurg	F	A	N	Marg	GA
Van	Richard Kind	M	A	N	Marg	NE

Appendix M: *Brave* (2012) characters

Setting: Scotland.

Character:	Voiced by:	Gender:	Age:	Character's nature:	Character's role:	Accent:
Elinor	Emma Thompson	F	A	G	S	Sc
Young Merida	Peigi Barker	F	C	G	Marg	Sc
Older Merida	Kelly Macdonald	F	C	G	Main	Sc
Fergus	Billy Connolly	M	A	G	S	Sc
Lord MacGuffin	Kevin McKidd	M	A	G	S	Sc
Lord Dingwall	Robbie Coltrane	M	E	G	S	Sc
Lord Macintosh	Craig Furgeson	M	A	G	S	Sc
Gordon the Guard	John Ratzenberger	M	A	N	Marg	Sc
Maudie	Eilidih Fraser & Sally Kinghorn	F	A	N	Marg	Sc
Witch	Julie Walters	F	E	N	Marg	Sc
Crow	Steve Purcell	M	UC	N	Marg	GA
Kitchen maid	?	F	A	N	Marg	Sc
Young Macinosh	Steven Cree	M	C	N	Marg	Sc
Wee Dingwell	Callum O'Neill	M	C	N	Marg	Sc

Appendix N: *Monsters University* (2013) characters

Setting: linguistically undetermined (universe behind our closet doors and some segments in the United States).

Character:	Voiced by:	Gender:	Age:	Character's nature:	Character's role:	Accent:
Mrs Graves	Bonnie Hunt	F	A	N	Marg	GA
Young Mike Wazowski	Noah Johnston	M	C	G	S	GA
Monsters, Inc. tour guide	?	M	A	N	Marg	GA
Frank McCay	John Karsinski	M	A	N	Marg	GA
Scarer	?	M	A	N	Marg	NE
Child 1	?	M	C	N	Marg	GA
Child 2	?	M	C	N	Marg	GA
Child 3	?	F	C	N	Marg	GA
Child 4	?	M	C	N	Marg	GA
Mike Wazowski	Billy Crystal	M	C	G	Main	NE
Bus driver	?	F	A	N	Marg	NE
Jay	?	M	C	N	Marg	GA
Kay	?	F	C	N	Marg	GA
Tray photographer	?	M	C	N	Marg	GA
Fay tour guide	?	F	C	N	Marg	GA
Debate monster 1	?	F	C	N	Marg	GA
Debate monster 2	?	F	C	N	Marg	GA
Astronomy monster	?	M	C	N	Marg	GA
Improv monster	?	M	C	N	Marg	GA
Greek council girl	?	F	C	N	S	GA
Greek Council VP	?	M	C	N	S	GA
Student 1	?	M	C	N	Marg	GA
Randall "Randy" Boggs	Steve Buscemi	M	C	M	S	GA
Slug	Bill Hader	M	C	N	Marg	GA
Scare student	?	F	C	N	Marg	NE

Professor Knight	Alfred Molina	M	A	N	S	GA
Dean Hardscrabble	Hellen Mirren	F	A	M	S	RP
James P “Sully” Sullivan	John Goodman	M	C	G	Main	GA
Fear Tech Monster	?	M	C	N	Marg	NE
Big red	?	M	C	N	Marg	NE
Omega Howl frat guy	?	M	C	N	Marg	GA
Johnny Worthington	Nathan Fillion	M	C	E	S	GA
Chet	Bobby Moynihan	M	C	E	S	GA
Don Carlton	Joel Murray	M	A	G	S	GA
Squishy	Peter Son	M	C	G	S	GA
Student 2	?	M	C	N	Marg	GA
Professor Brandywine	?	M	A	N	Marg	GA
Terry	Dave Folley	M	C	G	S	GA
Terri	Sean Hayes	M	C	G	S	GA
Art	Charlie Day	M	C	G	S	GA
Ms. Squibbles	Julia Sweeney	F	A	N	S	GA
PNK Carrie	Beth Behrs	F	C	N	Marg	GA
Librarian	?	F	E	N	Marg	GA
PNK girl 1	?	F	C	N	Marg	GA
PNK girl 2	?	F	C	N	Marg	GA
Security guard 1	?	M	A	N	Marg	GA
Student 3	?	M	C	N	Marg	GA
Student 4	?	F	A	N	Marg	GA
Student 5	?	M	C	N	Marg	GA
Student 6	?	M	C	N	Marg	GA
Little girl	?	F	C	N	Marg	GA
Security guard 2	?	M	A	N	Marg	GA
Security guard 3	?	M	A	N	Marg	NE
Ranger	?	M	A	N	Marg	GA
CDA officer 04114	?	M	A	N	Marg	GA
Angry student 1	?	M	C	N	Marg	GA

Angry student 2	?	F	C	N	Marg	GA
Roz	Bob Peterson	F	E	N	Marg	GA
The abominable snowman	John Ratzenberger	M	A	N	Marg	GA
Merv	?	M	A	N	Marg	GA
MI worker	?	M	A	N	Marg	GA

Appendix O: Example of accent analysis list

Features of GA:	**Presence of features in camp master Strauch's (*Up*, 2009) speech:**
The lexical sets of GA: kit /ɪ/ palm /ɑ/ force /or/ dress /ɛ/ thought /ɔ/ cure /ʊr/ trap /æ/ goose /u/ face /eɪ/ lot /ɑ/ goat /o/ price /aɪ/ strut /ʌ/ nurse /ɜr/ choice /ɔɪ/ foot /ʊ/ near /ɪr/ mouth /aʊ/ bath /æ/ square /ɛr/ schwa /ə/ cloth /ɔ/ start /ɑr/ fleece /i/ north /ɔr/	The vowels used by camp master Strauch: **gi**ve all right ✗ **e**lderly c**a**ll ✗ br**a**nd gradu**a**te gradu**a**te f**o**llowing s**o** b**y** R**u**ssell th**ei**r ✗ ✗ ✗ m**ou**ntaineering ✗ th**ei**r eld**e**rly ✗ **ar**ts extr**e**me ✗
The consonants of GA: /p/ /f/ /h/ /b/ /v/ /m/ /t/ /θ/ /n/ /d/ /ð/ /ŋ/ /k/ /s/ /l/ /g/ /z/ /r/ /tʃ/ /ʃ/ /w/ /dʒ/ /ʒ/ /j/	The consonants used by camp master Strauch: ex**p**lorers **f**or ✗ **b**y co**v**ers ani**m**al ex**t**reme ✗ **n**ew wil**d** **th**eir receiv**ing** **c**overs **s**o fo**ll**owing **g**raduate ✗ **r**eceiving ✗ congratula**t**ions follo**w**ing ba**dg**es ✗ **J**immy
Caught-cot merger	✗
Syncope of penultimate syllable in words such as *family*, *federal* and *happening*	✗
Secondary stress on penultimate syllables of words like *conservatory* and *laboratory*	✗
Rhotic	Camp master Strauch pronounces /r/ in every position
Retroflex r	✗
R-elision after unstressed vowels where the /r/ is followed by another consonant (e.g. *govern* vs *governor*)	✗
T-flapping (i.e. *ladder* and *latter* are homophonous)	✗
T-elision occurs frequently in /nt/ clusters (i.e. *winner* and *winter* are homophonous)	mountaineering /maʊnən'ɪrɪŋ/
Predominantly dark /l/s	All the /l/s in camp master Strauch's speech are dark
Generally lack of /j/-glide before stressed u-vowels unless the vowel is initial or is preceded by a labial or velar sound	✗
Tendency to reduce /lj/-clusters found in words such as *million* to /j/	✗
Lack of glottal reinforcement	✗