

**Variation and Change in English Negation:
A Cross-Dialectal Perspective**

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Abstract

Although negation is a linguistic universal (Dahl 1979; Horn 2001: xiii), the ways in which it is expressed are highly variable within and across languages (Miestamo 2005; de Swart 2010: 245). This thesis focuses on this variation in English, using corpora of informal conversations recorded in Glasgow (Scotland), Tyneside (North East England) and Salford (North West England) to study three variables:

1. *Not-/no*-negation and negative concord
e.g. I **don't** have **any** money / I have **no** money / I **don't** have **no** money
2. Non-quantificational *never* and *didn't*
e.g. I **never** saw / I **didn't** see that programme last night
3. Negative tags
e.g. It's a nice day, **isn't it** / **int it** / **innit**?

This research aims to bridge the gap between two typically distinct sub-fields of linguistics: variationist sociolinguistics and formal linguistic theory. The investigation draws upon formal theory in (i) defining the linguistic variables and their contexts; (ii) generating hypotheses to test using the spoken data; and (iii) interpreting the results of the quantitative variationist analysis in a theoretically-informed manner. The analysis takes a comparative approach (Poplack & Tagliamonte 2001) to examine whether the factors conditioning negation are subject to regional differentiation.

The results demonstrate that all three variables are most significantly constrained by internal factors such as verb type and lexical aspect. Although the relative frequency of variants always differs across geographical space, the underlying system is the same. Discourse-pragmatic factors apply consistently for the *not/no/concord* and *never/didn't* variables, whereas the negative tags are more variable in this regard and are sensitive to social and situational factors. These different strands of evidence together provide support for particular theoretical accounts of how variants are derived from the grammar (*not/no/concord*) and how they have grammaticalised over time (*never/didn't* and negative tags).

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List of Abbreviations

3SG	Third-person singular
AAVE	African American Vernacular English
AIC	Akaike Information Criterion
BNC	<i>British National Corpus</i>
CA	Conversation Analysis
COCA	<i>Corpus of Contemporary American English</i>
COLT	<i>The Bergen Corpus of London Teenage Language</i>
CP	Complementiser phrase
DECTE	<i>Diachronic Electronic Corpus of Tyneside English</i>
DP	Determiner phrase
FDS	Foreigner-directed speech
ICE-GB	<i>International Corpus of English (Great Britain)</i>
[iNEG]	Interpretable negative feature
IP	Inflectional phrase
LF	Logical Form
LIC	<i>Linguistic Innovators Corpus</i>
LOB	<i>Lancaster-Oslo/Bergen Corpus of Written English</i>
LLC	<i>London-Lund Corpus of Spoken English</i>
LSAC	<i>Longman Spoken American Corpus</i>
MP	Minimalist Program
NC	Negative concord
NECTE	<i>Newcastle Electronic Corpus of Tyneside English</i>
NECTE2	<i>Newcastle Electronic Corpus of Tyneside English 2</i>
NEG	Negative marker
NegP	Negation phrase
NPI	Negative polarity item
OED	<i>Oxford English Dictionary</i>
OF	Older female
OM	Older male
Op	Operator
PF	Phonetic Form
P&P	Principles and Parameters
PVC	<i>Phonological Variation and Change corpus</i>

RP	Received Pronunciation
SED	<i>Survey of English Dialects</i>
TLS	<i>Tyneside Linguistic Survey</i>
TP	Tense phrase
UG	Universal Grammar
[uNEG]	Uninterpretable negative feature
vP	Light verb phrase
VP	Verb phrase
YF	Young female
YM	Young male

Transcription Conventions

.	Falling intonation
?	Rising intonation
!	Exclamatory utterance
,	Very short pause (c. <0.5 seconds)
(.)	Short pause (c. 0.5-1 seconds)
(..)	Medium pause (c. 1-2 seconds)
(...)	Long pause (more than 2 seconds)
-	False start
--	Incomplete utterance
[Overlapping speech
@	Laughter
<@> </@>	Utterance punctuated with laughter
“ ”	Reported speech
<unclear>	Unclear speech that could not be transcribed
< >	Uncertain transcription
(<i>italics</i>)	Non-verbal behaviour
((<i>italics</i>))	Researcher comments
[...]	Material omitted

Chapter 1. Introduction and Background

1.1. Overview of thesis

This thesis is a quantitative investigation of how negation is expressed in the dialects of English spoken in Glasgow (Scotland), Tyneside (North East England) and Salford (North West England), using data from pre-existing corpora of informal conversations. Negation as a linguistic phenomenon has been the subject of much scholarly attention, given its status as a ubiquitous concept cross-linguistically (Dahl 1979; Horn 2001: xiii) coupled with its extensive variability in terms of the linguistic forms available to speakers for marking negation, both within and across language varieties (Miestamo 2005; de Swart 2010: 245). In the thesis, I examine how the variation in English is conditioned on different linguistic levels (e.g. morpho-syntactic, semantic, discourse-pragmatic) and social dimensions (e.g. sex, age, locality), and whether there is evidence of linguistic change. I focus on three under-studied aspects of negation: (i) *not-/no*-negation and negative concord; (ii) non-quantificational *never* and *didn't*; (iii) negative tags. The thesis argues in favour of integrating formal linguistic theory into a quantitative variationist analysis of the variation. It demonstrates how such an approach is advantageous for circumscribing the variables of negation and their contexts, formulating theoretically-grounded hypotheses, and interpreting the robustness of linguistic constraints across the dialects, to provide unique insights into the English negation system.

The arguments for this combined approach to the analysis of negation are introduced in section 1.2 with discussion of the structure and meaning of negation in language more broadly. The formal linguistic and variationist sociolinguistic perspectives on variation are summarised in section 1.3, leading to the discussion in section 1.4 of how these approaches complement one another in the study of negation. This is followed by discussion of the benefits of the comparative method (section 1.5) and examining both linguistic and external factors (1.6). The research questions at the centre of this investigation are presented in section 1.7, followed by the linguistic variables in section 1.8 and an overview of the structure of the thesis in section 1.9.

1.2. The nature of linguistic negation

Negation has been central to much discussion and debate in the linguistic literature, particularly from formal theoretical perspectives (Mazzon 2004: 94). The interest in this aspect of language

likely stems from its status as a linguistic, ‘pragmatic’ universal (Dahl 1979; Horn 2001: xiii). Indeed, ‘there is no known language which does not have some means or another of expressing negation’ (Bernini & Ramat 1996: 1). Since it is a fundamental property of language, understanding negation can inform us about the nature of the language faculty (Horn 2010a: 1), thus contributing to ‘the search for order in language’ that is central to linguistics as a discipline (Newmeyer 1983: 41). At the same time, the ways in which negation is expressed are highly variable (de Swart 2010: 245). As Mazzon (2004: 112) notes, ‘purely syntactic approaches are not sufficient to explain the phenomena related to English negation’ since semantic, discourse-pragmatic and other factors also play an important role in conditioning the variation. As such, this thesis argues that there is room for both formal theoretical and variationist sociolinguistic accounts of negation and that integrating insights from the former into the latter can further illuminate how negation works, including its underlying structure, factors conditioning its variability and the mechanisms of language change.

What, then, are the core characteristics of negation? Negation in language can behave as it does in logic, where negation is a truth-functional operator which denies a proposition, i.e. reverses its truth value (Clarke & Behling 1998: 17). This similarity is demonstrated below, in which the affirmative sentence in (1a) can be negated to form (1b). In this prototypical type of linguistic negation, ‘sentential negation’, the negative marker has wide scope over an entire proposition and clause, to give the meaning “it is not the case that...” (Penka 2016: 304–5).

- (1) a. She went to the cinema yesterday (affirmative)
 b. She didn’t go to the cinema yesterday (sentential negation)

Negation in language is, however, much more complex than in logic (Givón 1979; Horn 2001: xiii; Horn 2010a: 1; Holmberg 2002: 121). Unlike logical negation, linguistic negation does not necessarily apply to an entire proposition; it can apply to smaller constituents (‘constituent negation’) where it has narrow scope (Hidalgo-Downing 2000: 30), as shown in (2):

- (2) She went to the cinema, but not yesterday (constituent negation)

Linguistic negation also does not necessarily abide by the logical rule that ‘two negatives make a positive’ (Tomassi 1999: 79). Interpreting a sentence like *I don’t have no money* in a logical sense would result in *don’t* and *no* cancelling each other out, leading to the double

negation reading in (3a). However, in non-standard varieties of English around the world, this same construction can have a negative concord reading, under which ‘negation is interpreted just once, though it seems to be expressed more than once’ (Giannakidou 2000: 87), shown in (3b). Rather than being cancelled, the negation is retained – and in this kind of construction it can even have an emphatic or reinforced quality (Labov 1972a: 810).

(3) a. Double negation

I don’t have no money (“I don’t have no money – I have some money”)

b. Negative concord

I don’t have no money (“I don’t have any money”)

While negation in logic is always expressed by a single, invariable negative operator, the variability in linguistic negation is clear even when considering just one single phenomenon like negative concord (as above). Languages do not necessarily have negative concord (e.g. Standard English), but those that do have one of two types: strict or non-strict. Strict negative concord requires a negative indefinite to co-occur with a negative marker, as in languages including Greek, Hungarian and Slavic varieties (Giannakidou 2012: 330). As the examples from Czech in (4) show, if the negative prefix *ne-* is omitted, the sentences become ungrammatical, because the negative indefinite requires the marking of negation elsewhere in the structure, no matter where the indefinite is positioned.

(4) Strict negative concord (e.g. Czech)

a. Milan *(ne-)vidi nikoho.

Milan NEG.saw n-body

‘Milan doesn’t see anybody.’

b. Dnes *(ne-)volá nikdo.

Today NEG.calls n-body

‘Today nobody calls.’

- c. Dnes nikdo *(ne-)volá.
 Today n-body NEG.calls
 ‘Today nobody calls.’

(Zeijlstra 2008: 154)

In contrast, non-strict negative concord languages such as Spanish and Italian permit the use of negative indefinites without an additional negative marker (Penka 2011: 17). Example (5a) shows that when there is a post-verbal negative indefinite (here it is *nadie*), the negative marker *no* is required pre-verbally, otherwise the sentence becomes ungrammatical. Examples (5b) and (5c) meanwhile show that negative indefinites in pre-verbal position cannot occur with the negative marker *no*. Example (5c) also demonstrates that pre-verbal negative indefinites and post-verbal negative indefinites can occur in the same clause (Penka 2011: 17).

(5) Non-strict negative concord (e.g. Spanish)

- a. *(No) vino nadie.
 NEG came n-person
 ‘Nobody came.’
- b. Nadie (*no) vino.
 n-person NEG came
 ‘Nobody came.’
- c. Nadie (*no) ha comido nada.
 n-person NEG has eaten n-thing
 ‘Nobody has eaten anything.’

(Penka 2011: 17)

This strict/non-strict negative concord distinction is found not only between languages, but also between dialects of a single language. Some varieties of non-standard English allow strict negative concord, shown in (6), e.g. African American Vernacular English (AAVE) (Labov 1972a: 786; Martin & Wolfram 1998: 18; Anderwald 2002: 106). Most non-standard varieties of English only permit the non-strict type, as in (7).

(6) Strict negative concord in English

a. Chris didn't see nothing

'Chris saw nothing'

b. Nobody hasn't come

'Nobody came'

(7) Non-strict negative concord in English

a. Chris didn't see nothing

'Chris saw nothing'

b. Nobody has(*n't) come

'Nobody came'

(adapted from Zeijlstra 2004: 145)¹

Examples (4)-(7) show that the way in which negative concord operates in different varieties of English reflects cross-linguistic variation. This reinforces the general consensus that 'there is no syntactically significant distinction to be drawn between 'language' and 'dialect' and no justification for neglecting the latter' (Kayne 2000: 7; see also Adger & Trousdale 2007). That said, generativist syntacticians' focus on acceptability judgements of a standard language, often their own intuitions, has led to emphasis on research into the syntax of standard languages over non-standard dialects (Hinskens *et al.* 2005: 17; Adger & Trousdale 2007: 261–2; Britain 2007: 80). While there is substantial literature on variation in negation across dialects of languages such as Dutch (e.g. Zeijlstra 2004; van der Auwera & Neuckermans 2004) and Italian (e.g. Zanuttini 1997; Poletto 2000), for example, the same cannot be said of English, perhaps because 'vast realms of English syntax vary little' (Adger & Trousdale 2007: 261). However, 'variation does occur and it is highly significant for the development of theories of language' (Adger & Trousdale 2007: 262). Indeed, accounts of negation in dialectal English with a formal orientation have made successful advances in this regard by

¹ Zeijlstra (2004: 145) notes that *Nobody has*(n't) come* pertains in non-strict negative concord varieties of English. The asterisk placement indicates that the omission of *n't* renders the sentence ungrammatical, but the asterisk should be placed inside the bracket as it is the insertion of *n't* that leads to the sentence becoming ungrammatical.

integrating quantitative variationist sociolinguistic analysis and formal linguistic theory (Smith 2000; Adger & Smith 2005). Within the realm of variationist sociolinguistics, cross-dialectal investigations have been more abundant. In the UK, a range of negation phenomena have been found to vary across space in terms of their frequency and linguistic distribution, e.g. negative concord (Cheshire *et al.* 1993; Anderwald 2005), non-standard use of negative auxiliaries (Anderwald 2003), auxiliary-/not-contraction (Tagliamonte & Smith 2002; Yaeger-Dror *et al.* 2002) and the negative tag *innit* (Krug 1998; Pichler & Torgersen 2009).² Some studies have included these and other negation phenomena as part of largescale corpus-based investigations of how multiple variables pattern geographically, in the UK and beyond (Anderwald 2002; Kortmann & Szmrecsanyi 2004; Szmrecsanyi 2013).

Formal linguistic theory and variationist sociolinguistics are two typically disparate fields of study – yet, as the discussion so far has shown, both have advanced our knowledge of how variation in negation is structured underlyingly. Variationist work has also revealed its patterning on geographical and social dimensions. These two approaches can complement each other in the analysis of variation as we need knowledge of the underlying structure of negation to understand how variability arises from the grammar (Fasold 2013: 185). At the same time, through the quantitative variationist analysis of internal and external factors together, we can disentangle these effects from one another. In the following section, I summarise how variation is traditionally viewed and studied within formal linguistic theory and variationist sociolinguistics respectively, before explaining how a combined approach will further elucidate our understanding of negation, in section 1.4.

1.3. Perspectives on linguistic variation

Formal linguistic theory and variationist sociolinguistics have traditionally been at opposite ends of the spectrum in terms of their perspectives on the nature of language and their approaches to the analysis of variation. Their key positions and theories are summarised in this section so as to highlight the distinctions between the two. In section 1.4, I explain how we can successfully bridge the gap between the two in a quantitative analysis of morpho-syntactic variation.

² Similar investigations in the USA have uncovered geographical trends in contraction and the use of non-standard verb forms such as *ain't* (Yaeger-Dror *et al.* 2002; Grieve 2011).

1.3.1. Formal syntactic theory

Formal syntactic theory in the generative grammar tradition was pioneered by Noam Chomsky in the 1950s and 1960s (Chomsky 1965). Central to the paradigm is the notion that language is ‘a state of the faculty of language’ (Chomsky 2006: 175). It is therefore concerned with the *competence* side of the *competence-performance* distinction,³ which contrasts the internal linguistic rules that are used to generate grammatical sentences with our production and use of these sentences in everyday speech:

Linguistic theory is concerned primarily with an ideal speaker-listener, in a completely homogeneous speech-community, who knows its language perfectly and is unaffected by such grammatically irrelevant conditions as memory limitations, distractions, shift of attention and interest, and errors (random or characteristic) in applying his knowledge of the language in actual performance.

(Chomsky 1965: 3)

This focus on the language of an ideal speaker-listener is an abstraction deemed necessary for the scientific study of language, because it assists in the discovery of general principles common to all languages (Universal Grammar, henceforth UG) that will hold even when all of language’s additional complexities are taken into consideration (Cattell 2007: 69). Chomsky (1965: 4) acknowledges this in his initial definition of the *competence-performance* distinction: ‘[t]o study actual linguistic performance, we must consider the interaction of a variety of factors, of which the underlying competence of the speaker-hearer is only one’. The generativist conception of language as an internal object is reflected in the generativists’ chosen methods and data, most often acceptability judgements from native speakers elicited by introspection or from participants (Newmeyer 1983: 48). These methods are assumed within generativist linguistic theory to be ‘the ultimate standard that determines the accuracy of any proposed grammar’ (Chomsky 1965: 21).

It is no surprise given these theoretical underpinnings that variation has traditionally not been of prime concern to generativists (Cornips 2006: 85). That said, the Principles and Parameters (henceforth P&P) framework (Chomsky 1981) introduced a way of accounting for language variation within the generativist paradigm. P&P stipulated that in addition to the invariant principles of UG, there are also parameters that act like switches, which take different settings

³ The *competence-performance* distinction bears similarity to Saussure’s (1916) *langue-parole* distinction and Chomsky’s (1986) *I-language* vs. *E-language* dichotomy.

depending on the language input a child is exposed to during acquisition (see Chomsky 1986: 146, who credits this switchboard metaphor to James Higginbotham). Although this switchboard view of variation has largely fallen out of favour and some have criticised and abandoned the notion of parameters altogether (Newmeyer 2004; Boeckx 2014), parametric theory is not incompatible with the current Minimalist Program (MP, Chomsky 1995) as it can be considered as arising from under-specification within UG (Holmberg, in press). The parametric approach therefore paved the way for more analysis of variation within formal linguistics.

The MP developed to address the question of the extent to which language ‘could be the direct result of optimal, computationally efficient design’ (Boeckx 2006: 4). Within the MP, under the Borer-Chomsky Conjecture (based on Borer 1984; Chomsky 1995), ‘[a]ll parameters of variation are attributable to differences in the features of particular items (e.g., the functional heads) in the lexicon’ (Baker 2008: 353). Under this approach, what we typically think of as ‘morpho-syntactic variation’ only arises from properties of lexical items and ‘[o]ptionality arises in the mapping from the syntactic module to PF [phonetic form], not in the syntactic module itself’ (Barbiers 2014: 199).⁴ This neatly reduces the amount of variation that must stem from internal properties of UG, since lexical items have to be learned from the input in language acquisition anyway (Borer 1984: 29). The results of this thesis concerning the internal constraints on negation, namely verb type (Chapter 3) and lexical aspect (Chapter 4), are consistent with this understanding of the locus of variation.

1.3.2. Variationist sociolinguistics

In contrast to the generativist perspective, variationist sociolinguists see language as ‘an instrument of social communication’ (Labov 2001: 3) and therefore primarily concerning *performance* rather than *competence* in terms of Chomsky’s (1965) dichotomy. Variationist sociolinguistics has its roots in the work of William Labov in the 1960s and 1970s. His pioneering study in Martha’s Vineyard, Massachusetts identified that variation in the realisation of diphthongs correlated with speakers’ attitude towards the community (Labov 1963: 309). His subsequent New York City study revealed that phonetic variation was conditioned by a variety of linguistic and social factors, including phonetic environment,

⁴ I continue to use the term ‘morpho-syntactic variation’ in this thesis to refer to such variation because this is a widely used and accepted term in linguistics across disciplines and, in itself, does not make any claims as to the locus of variation.

social class, age and style (Labov [1966] 2006). These studies were among the first to demonstrate that linguistic variation is not random but is structured on both linguistic and social dimensions – i.e., there is ‘orderly heterogeneity’ (Weinreich *et al.* 1968). Variationist sociolinguistics is therefore concerned with ‘the interplay between variation, social meaning and the evolution and development of the linguistic system itself’ (Tagliamonte 2006: 5).

The emphasis that variationist sociolinguists place on language use, especially in speech, is naturally reflected in their choice of data and methods. The most frequently used data collection method is the sociolinguistic interview, where participants are recorded either one-to-one with a fieldworker or in a group setting. The interview is designed to elicit speakers’ most natural, spontaneous speech, the vernacular, defined as ‘the style which is most regular in its structure and in its relation to the evolution of language [...], in which the minimum attention is paid to speech’ (Labov 1972b: 112). Central to variationist analysis is the selection of a linguistic variable, which is ‘a set of alternative ways of “saying the same thing”’ (Labov 1972c: 94) consisting of at least two variants that are ‘identical in referential or truth value’ (Labov 1972d: 271). The ways in which this variation patterns according to various independent variables (both linguistic and external) are analysed using quantitative methods, which are fundamental to the variationist sociolinguistic enterprise (Guy 2014). These typically include relative frequencies (i.e. the percentage at which one variant is used out of the total number of occurrences of all variants (the variable) overall in a given dataset) and regression modelling to account for the fact that variation is constrained by multiple factors at a time (Tagliamonte 2012) (see further Chapter 2, section 2.7).

Formal theoretical syntacticians and variationist sociolinguists therefore take opposing stances in their perspective on what language is, how it is structured and how to proceed with the analysis of morpho-syntactic variation. However, the two approaches have a common goal: to understand the structure underlying linguistic variation. As such, I argue in the following section that an approach which pays dividend to both stances offers many advantages in the analysis of morpho-syntactic variation.

1.4. Advantages of a variationist approach to language variation and change which integrates formal syntactic theory

An approach to variation and change which combines formal theory and variationist analysis has been advocated by several scholars over the past two decades (Wilson & Henry 1998;

Cornips & Corrigan 2005a, b; Adger & Trousdale 2007). The advantages of this approach are evident in defining the linguistic variables and their variable contexts (1.4.1), as well as testing hypotheses in spoken language using qualitative and quantitative methods (1.4.2). In the following sections, I explain how these advantages apply to the analysis of morpho-syntactic variation and, to some extent, discourse-pragmatic variation, as pursued in this thesis.

1.4.1. Defining the linguistic variables and the variable contexts

Formal insights into linguistic phenomena can assist the variationist sociolinguist in defining the variable and delimiting its context(s) of use. The definition of the linguistic variable as ‘a set of alternative ways of “saying the same thing”’ (Labov 1972c: 94) is easily applied to phonetic variation, since individual sounds do not have any semantic meaning (Lavandera 1978). However, its application to morpho-syntactic, lexical or discourse-pragmatic variation was initially deemed controversial by some scholars. Although Sankoff (1973: 58) noted that ‘[t]he extension of probabilistic considerations from phonology to syntax is not a conceptually difficult jump’, others argued that morpho-syntactic, lexical or discourse-pragmatic items cannot be referentially equivalent since they have intrinsic meaning of their own (Bolinger 1977; Lavandera 1978; Silva-Corvalán 1986). To account for variation on levels other than phonology, the requirement that variants of a variable be referentially or truth-conditionally equivalent was expanded to also allow variants with ‘functional comparability’ (Lavandera 1978: 181), the same ‘deep structure’ (Rosenbach 2002: 23) or ‘underlying similarity’ (Dines 1980: 17; see also Pichler 2010: 590; Waters 2016). The latter notion allows for differences in style and discourse-pragmatic function of variants, for example, to be included as predictors of the variation rather than grounds for seeing items as not belonging to the same variable (Pichler 2010). For example, in her study of English spoken in Berwick-upon-Tweed, North East England, Pichler (2013) uses derivational equivalence to define the IDON’T KNOW⁵ variable (consisting of *I don’t know*, *I dono*, *I dunno*, *I divn’t knaa* and *I dinnae ken*), which allowed her to analyse discourse-pragmatic function as a predictor of the variation in her quantitative analysis.

⁵ Throughout this thesis, SMALL CAPITALS are used to denote a construction or verb type. *Italics* are used to refer to a specific form of that construction or verb type. For example, BE refers to the entire set of forms in the verb’s paradigm, while *is* and *are* refer to their respective forms. Tags represented in small capitals, like ISN’T IT, refer to all of their potential phonetic realisations. Individual realisations are, as before, depicted in italics, e.g. *isn’t it*, *int it*, *innit* (see Chapter 5).

Given these criteria that variants of a linguistic variable be either referentially, functionally or derivationally the same, researchers must carefully select and justify their definition of the variable. Furthermore, one must delimit ‘the envelope of variation’ or ‘the variable context’ – in other words, decide ‘where does the speaker have a choice between forms?’ (Walker 2013: 442). Such decisions are a fundamental part of any variationist analysis, as they determine how the variation is conceptualised and ultimately affect the analysis, the results and how the results are interpreted (Walker 2015: 30). The process requires identifying where the variable can and cannot occur, excluding tokens that may appear to be part of the same functional system but in fact constitute other linguistic phenomena, and excluding contexts that permit only one variant all or most of the time (Tagliamonte 2006: 86–8). These decisions are made in accordance with the ‘principle of accountability’:

any variable form (a member of a set of alternative ways of “saying the same thing”) should be reported with the proportion of cases in which the form did occur **in the relevant environment** [emphasis mine], compared to the total number of cases in which it might have occurred.

(Labov 1972c: 94)

As noted above, one of the difficulties in this process is that tokens of a form may on the surface appear to be part of a certain variable, but actually belong to a different one. For example, in Tagliamonte and Smith’s (2006) investigation of variation between the deontic modals (expressions of obligation) *MUST*, *HAVE TO* and *HAVE GOT TO* in varieties of UK English as in (8), it was necessary to exclude tokens of these same forms that have epistemic modality as in (9), since this is a different linguistic function which developed at a later date.

- (8) Deontic modals
- a. MUST If you join the club, you must go to church
 - b. HAVE TO It has to be natural to work
 - c. HAVE GOT TO You're told you've got to speak properly

- (9) Epistemic modals
- a. MUST I says there must be a better life than this somewhere
 - b. HAVE TO There has to be something more than this
 - c. HAVE GOT TO I says 'Thou's got to be Dearham's lass

(Tagliamonte & Smith 2006: 343, 352)

To take another example, Wilson and Henry (1998) note that many sociolinguists would consider the two examples in (10) as belonging to the same phenomenon of singular concord and distinguish between the existential in (10a) and the plural NPs in (10b) as part of a construction type or verb type constraint on the variation. However, Wilson and Henry (1998) argue that under a P&P approach these two phenomena of singular concord would arise from two different parameters. Evidence that they provide in favour of such an account is that French allows singular concord with existentials (11a) but not with plural DP subjects (11b). Applying this to English would capture the fact that many dialects with constructions like (10a) do not have (10b) and would also make it less puzzling as to why the former is becoming more widespread while the latter is reducing in frequency (Wilson and Henry 1998).

- (10) a. There's books on the table
 b. The doors is closed
- (11) a. Il y a trois livres sur la table
 'There is (lit. has) three books on the table'
 b. *Les étudiants a trois livres
 'The students has three books'

(Wilson & Henry 1998: 11)

As Barbiers (2005: 235) argues, 'it is the task of sociolinguists to describe and explain the patterns of variation that occur within a linguistic community given the theoretical limits of this variation uncovered by generative linguistics'. My analyses of *not-/no-*negation and

negative concord (Chapter 3) and non-quantificational *never* and *didn't* (Chapter 4) in particular integrate formal theoretical observations to identify which linguistic forms are in alternation with one another (i.e. which forms constitute variants of the same variable) and in which contexts. My analysis of negative tags focuses instead on relationships between phonetic reduction and discourse-pragmatic function (Chapter 5) and the effect of the interviewer on their realisation (Chapter 6) – analyses which are further removed from syntax/semantics and more concerned with usage-based interactional and situational effects. While formal observations are less relevant to this particular variable, they are nevertheless useful in establishing where tags can and cannot appear in the clause when defining the variable context.

1.4.2. Testing hypotheses in spoken language data using qualitative and quantitative methods

The scientific study of language involves formulating hypotheses based on our existing knowledge base. In constructing these hypotheses, there is an understandable tendency to focus on the state of knowledge within one's own field, since these studies are likely to share a similar outlook and approach to analysis. This may explain why formal linguistic theory and variationist sociolinguistics have remained largely distinct fields of study (Wilson & Henry 1998). However, if we are to understand more about the nature of linguistic variation and change, it is worthwhile to test hypotheses generated from generativist linguistics using variationist sociolinguistic methods and, *vice versa*, account for certain sociolinguistic observations by identifying the internal linguistic mechanisms that underlie them.

Native-speaker judgements contribute to my investigation of morpho-syntactic and discourse-pragmatic phenomena, as considering the meaning, function and distribution of tokens is important in defining the variable and its context as described in section 1.4.1. Native-speaker judgements allow researchers to ascertain the structure and mechanisms of language, granting insight into not just what is possible in a given language but also what is *not* possible. No corpus can do this – the absence of an item in a corpus does not necessarily mean that it is not part of speakers' grammars (Baker 2013: 25). Intuitions also guarantee data on linguistic phenomena that are rare in speech (Schütze & Sprouse 2013: 29). However, relying only on the judgements of a single speaker, as some generativist research does, raises questions about the reliability of this method (Wasow & Arnold 2005), especially since 'it is entirely likely that no two speakers of English have exactly the same syntactic judgements' (Kayne 2000: 8).

Even in samples of acceptability judgements from more than one speaker, variability may arise due to extraneous factors relating to the task (e.g. the linguistic context in which a test item is situated, which the analyst did not control for) or relating to the participant (e.g. their level of linguistic training), as discussed at length in Schütze (2016 *inter alia*). To overcome these kinds of issues, researchers focusing on dialectal variation have made advances in the development of more systematic, reliable methods of collecting judgement data (Cornips & Poletto 2005; Buchstaller & Corrigan 2011a, b). There have also been calls for acceptability judgements to be supplemented with data from other sources such as linguistic corpora (Cornips & Corrigan 2005b: 19).

The analysis of speech opens up the study of morpho-syntactic variation as an entirely internal, autonomous entity to consider its interface with dimensions of language outside the internal grammar. Using large electronic corpora ‘has made possible unrestricted access to the observation of language in use’ (Tognini-Bonelli 2001: 5), which lends itself well to quantitative methodology to test hypotheses statistically and identify trends in language use both synchronically and diachronically. These techniques allow for the testing of multiple hypotheses simultaneously in regression analysis to ascertain their relative importance in conditioning the variation observed, which grants us a window into the areas of gradience and non-categoricity in language. Although certain linguistic items may not always occur with sufficient frequency in a corpus to run reliable statistical analyses, qualitative analysis is always at our disposal to examine how variants are used in interaction to achieve particular linguistic or conversational goals (Cheshire 2005a).

An approach which integrates insights from formal linguistic theory into a variationist analysis strikes a balance between paying due attention to the internal constraints on variation and language as it is actually used. It would help to combat criticisms that variationist work sometimes lacks sufficiently detailed or linguistically-informed explanations of why particular predictors are included in quantitative analyses of variation (Henry 2002). In turn, it would address the criticism that the generativist tradition downplays the importance of language performance in linguistic theory and ignores external factors that may impact upon speakers’ language choices (Hymes 1974). By testing hypotheses from intuition data in spoken data, we can ascertain the correspondence between competence and performance to see whether internal constraints are manifested in patterns of language use even when additional factors come into play in determining speakers’ choice of variant.

1.5. The comparative method

My analysis of variation in the expression of negation in the dialects of English spoken in Glasgow, Tyneside and Salford proceeds using the comparative method, a type of approach that has been used in sociolinguistics to compare patterns of language variation and change in different datasets (see Poplack & Tagliamonte 2001; Tagliamonte 2013a, b). The purpose of the comparison depends on the research questions of each study, but the method is often employed to: (i) track variation and change in a single variety over time using corpora collected at separate points in time (Rickford *et al.* 2007; Barnfield & Buchstaller 2010; Buchstaller *et al.* 2010; Buchstaller 2011; D’Arcy 2012; Fehringer & Corrigan 2015); (ii) compare languages or dialects to track their historical roots (Poplack & Tagliamonte 2001); or (iii), as pursued in this thesis, establish how variation is conditioned and how changes have progressed in different dialects (Tagliamonte & Smith 2002, 2006; Buchstaller 2006; Buchstaller & D’Arcy 2009; D’Arcy *et al.* 2013; Tagliamonte & Denis 2014; Tagliamonte *et al.* 2014; Tagliamonte 2016).

The frequency of variants in each dialect under investigation can reflect ‘how far linguistic change has progressed’ (Tagliamonte 2013a: 186), but this is less important than the underlying linguistic system of constraints on the variation. Just as typological approaches to linguistic phenomena aim to identify generalisations and core properties of the world’s languages, comparative sociolinguistic studies examine whether the internal constraints of a phenomenon apply and operate in the same way in different dialects (Tagliamonte 2013a: 186). In this vein, the method bears some similarity to the approach of comparative microparametric syntax, in which closely-related languages are compared with the aim of accounting for their shared properties and, from this, establishing the principles of UG (Kayne 2000: 3). For variationist sociolinguists, such areas of correspondence between dialects indicate structural similarity, whereas differences can reveal how the dialects are positioned with respect to a linguistic change (Tagliamonte 2013a: 186).

1.6. Examining the role of both linguistic and external factors in language variation and change

Both internal and external factors contribute to the patterns of variation and change that we observe in natural language, but the relative emphasis on one or the other in research differs according to scholars’ disciplines and preferences. The generativist search for shared

properties of UG leads to a focus on internal constraints only, whereas variationist sociolinguists are interested in the role of both linguistic and social factors in variation and change (see Wilson & Henry 1998). Demographic categories such as age, sex and social class are among the most frequently analysed independent social variables in variationist studies because of their potential to correlate with patterns of linguistic variation and change, which has been demonstrated ever since the earliest sociolinguistic analyses of phonological variation (see, e.g., Labov 1972d, 1990; Trudgill 1972, 1974). Although social effects are sometimes not as strong for morpho-syntactic variation as they are for phonological variation (Meyerhoff 2013: 32–4), age, sex and social class are relevant social dimensions for the patterning of many syntactic variables (e.g. Cheshire 1982; Tagliamonte & D’Arcy 2009) and discourse-pragmatic variables (e.g. Cheshire 2005b; Tagliamonte 2008; Tagliamonte & D’Arcy 2009; Pichler 2013). Variation on different levels of linguistic structure can also vary across geographical space (Britain 2013; Szmrecsanyi 2013). The myriad of potential external factors that may condition linguistic variation makes this a fruitful area for research, but Labov (1972d: 251) warns against overestimating the importance of external factors, stating that ‘[l]inguistic and social structure are by no means coextensive’. Associations between broad social categories and language variation are also descriptive rather than explanatory (Eckert 2000; Dodsworth 2014: 273). However, investigating the role of these external factors in variation and change in different datasets, as done in the present investigation, allows for the assessment of how robust these effects are across varieties. Investigating these factors in addition to linguistic constraints aligns with the observation that ‘[w]e cannot fully explain language only as an internal object, any more than we can fully explain language only as an external object’ (Wilson & Henry 1998: 14).

1.7. Research questions

Focusing on variation in the expression of negation in Glasgow, Tyneside and Salford English, my thesis centres around four key research questions, presented in turn below.

1. How is variation in English negation constrained by linguistic factors?

Negation is relevant to different levels of the grammar: (i) syntax, as it can have its own functional projection cross-linguistically (Zeijlstra 2004), (ii) semantics, in that it reverses the truth/falsity of a given proposition (Holmberg 2002: 121), and (iii) pragmatics, as it has been called a ‘pragmatic’ universal (Dahl 1979; Horn 2001: xiii). My choice of variables, explained

fully in section 1.8, reflects the variability of negation on these and other levels. The *not-/no-* negation and negative concord variable and the non-quantificational *never* vs. *didn't* variable are more firmly situated in the syntax than my third variable, which concerns the phonetic realisation of negative tags. The negative tags investigation is therefore less related to the morpho-syntactic derivation of the tag but rather phonetic reduction that consequently applies to these items generated from the grammar. Each of the three variables has their own set of linguistic conditioning factors, on dimensions of syntax, semantics, discourse-pragmatics and phonology. The investigation will therefore uncover whether certain types of linguistic factors are more pertinent to variables on particular levels of language structure, to further our understanding of language production and the language faculty.

2. *Does variation in English negation pattern according to external factors?*

As discussed in section 1.6, morpho-syntactic variables can be less sensitive to variation along social dimensions than phonetic variables (Meyerhoff 2013: 32–4). Furthermore, '[v]ariables closer to surface structure frequently are the focus of social affect' (Labov 1972d: 251). My investigation will address this issue through analysing the patterning of two morpho-syntactic variables (*not-/no-*negation and negative concord; non-quantificational *never* and *didn't*) and a discourse-pragmatic variable (negative tags) according to speaker age, speaker sex and locality. I also test the potential influence of the interviewer on speakers' realisation of negative tags in Chapter 6.

3. *To what extent do these linguistic constraints on negation operate consistently across Glasgow, Tyneside and Salford English?*

Few studies of English negation have focused on its variation across geographical space (see section 1.2). My analysis contributes to this gap in our knowledge by comparing how variables of negation pattern across communities, to help establish which types of factors (e.g. syntactic, semantic, discourse-pragmatic) that affect the variation apply consistently in these dialects and which have localised effects. Such insights will reveal which aspects of grammar are shared between varieties of English and which are more malleable.

4. *Is there any evidence of ongoing linguistic change in negation in each dialect?*

Examining how each linguistic variable patterns according to linguistic and external factors in each dialect provides a window into ongoing change, allowing us to identify the communities where a change is most advanced and those where it has yet to reach its full potential.

Comparisons can be made to see whether variation on a particular level of linguistic structure is particularly prone or resistant to change and whether the communities are always ranked in the same way in terms of their conservative or innovative status in this respect. This insight informs us about the typical mechanisms and trajectories of different types of linguistic change.

1.8. The linguistic variables studied in this thesis

As discussed earlier, negation has many intriguing properties. It is highly variable in terms of the ways it is expressed within and between language varieties, yet this variability is also highly structured. It is constrained by syntax, but it is also sensitive to other levels of linguistic structure including semantics and discourse-pragmatics. The changes that negation undergoes in the world's languages are remarkably consistent and display universal tendencies. Negation is therefore ideal for the investigation of the interplay between constraints on various levels of linguistic structure and how these operate in different English dialects. The range of negation phenomena in English alone means that there are many different linguistic variables to choose from. The three variables studied in this thesis were selected to address the research questions outlined in section 1.7.

The first variable is *not-/no*-negation and negative concord, which concerns the expression of negation with a negative polarity item (NPI) of the form *any-*, as in (12). The distribution of NPIs under negation is one of the most heavily-debated aspects of syntactic theory, in part because analyses must attempt to reconcile many different issues, including the distribution of NPIs in various sentence types (both with and without negation) and accounting for cross-linguistic variation (see, e.g., Krifka 1991; Progovac 1994; Hoeksema 2010; Zeijlstra 2004). The expectation that the variable is predominantly constrained by internal factors was the impetus for my analysis, where I present two alternative syntactic accounts of the variation that make different predictions about the distribution of variants according to verb type and the presence of additional auxiliary verbs. The hypotheses generated from these two accounts are subsequently tested in my spoken corpora. Discourse status (old vs. new), which was

found to be relevant to the variation in previous research, is also considered, alongside social factors which can provide insight into the state of the previously-identified change from *no*-negation towards *not*-negation (Tottie 1991a, b; Varela Pérez 2014).

(12) *Not/no*-negation and negative concord

- a. *Not*-negation e.g. I **didn't** see **anything**
- b. *No*-negation e.g. I saw **nothing**
- c. Negative concord e.g. I **didn't** see **nothing**

The results regarding the progress of the change tentatively suggest that Tyneside may be lagging behind the other communities, but the syntactic and discourse-pragmatic constraints on the variation are robust between the communities. The results support an account of the variation where *not*-negation and negative concord have the same underlying structure consisting of a negative marker in NegP (which in the latter case enters into an Agree relation with the post-verbal indefinite), whereas *no*-negation is marked within the post-verbal indefinite DP and moves to NegP for sentential scope. The alternative proposal, where *no*-negation is also derived via Agree with a covert operator in NegP, is not as strongly supported.

The second variable studied in this thesis is the alternation between non-quantificational *never* and *didn't*, shown in (13), which has received relatively little scholarly attention as a variable. However, Lucas and Willis (2012) outline in detail the formal properties of *never* and observe that it is grammaticalising from a universal quantifier over time to develop non-quantificational uses, of which one is standard and the other (a subsequent innovation) is non-standard. My analysis of the alternation between *never* and *didn't* reveals that *never* has retained its preference for particular semantic-syntactic contexts of use as it grammaticalises, but that it has developed new functions in the process. While the contexts in which standard non-quantificational *never* is used are inherently associated with counter-expectation (even when *didn't* is used instead), *never* as a non-standard negator is, on the other hand, found to be associated with explicit denials.

(13) Non-quantificational *never* and *didn't*

- a. Non-quantificational *never* e.g. He **never** called Kate at 6pm
- b. *Didn't* e.g. He **didn't** call Kate at 6pm

The third and final variable studied is the realisation of negative tags, shown in (14). This variable stands in contrast to the previous two since it is discourse-pragmatic in nature. The analysis examines whether reduction in phonetic form and particular changes in discourse-pragmatic function, two characteristic processes of grammaticalisation (Brinton & Traugott 2005: 100), pattern in tandem with one another and consistently across the communities. I trace the trajectories of change for this variable in each community, finding that while linguistic factors are consistent across dialects, the form-function associations and relevance of social factors differ cross-dialectally, reflecting how advanced each locality is with respect to the change.

(14) Negative tags

- | | |
|-----------------------|---|
| a. Full variants | e.g. That's right, isn't it? / He did, didn't he? |
| b. Reduced variants | e.g. That's right, int it? / He did, dint he? |
| c. Coalesced variants | e.g. That's right, innit? / He did, dinne? |

The negative tag analysis leads on to an investigation of interviewer effects on the variation in the Tyneside data in Chapter 6. The results reveal that the interviewer's relationship with their interviewees, as well as the interviewer's dialect of English, influence the extent to which interlocutors reduce their negative tags. The analysis demonstrates how situational factors can impact upon the frequency of variants, but that the linguistic and social constraints remain the most significant factors affecting the variation.

1.9. Overview of thesis

The research in this thesis demonstrates the overarching importance of internal constraints, i.e. syntactic and semantic factors, in accounting for variation in negation. Discourse-pragmatic factors also contribute greatly to the variation, exhibiting consistent effects between the dialects when these effects relate to information status (i.e. marking discourse-old vs. new information; expressing counter-expectation or contradiction vs. no counter-expectation). Negative tags are much more variable with respect to their form-function associations, which reflects the more interpersonal nature of their functions and is indicative of different stages of grammaticalisation in each locale. The patterning of *not/no/concord* and non-quantificational *never/didn't* according to social factors is suggestive of particular trajectories of change in each community, but these are not as significant or robust as their distribution on internal dimensions. The impact of external factors on the distribution of variants becomes more

significant with respect to the discourse-pragmatic variable of negative tags, the variants of which are defined on a phonetic basis.

The structure of this thesis is as follows. Chapter 2 provides details of my data sources for the analysis of the variation, namely three pre-existing corpora of regional varieties of English spoken in Glasgow, Tyneside and Salford. The chapter explains how the speaker samples were selected from these corpora to maximise comparability between the three regional datasets. Also included are details of how the variable tokens were extracted, coded and analysed, with discussion of the qualitative and quantitative methods of analysis. Following this are the three chapters of analysis on each of the variables above: *not-/no*-negation and negative concord (Chapter 3); non-quantificational *never* and *didn't* (Chapter 4); negative tags (Chapter 5). The results of the analysis in Chapter 5 leads to further exploration of the impact of interviewer effects on negative tag realisations, presented in Chapter 6. Chapter 7 concludes the thesis by collating the findings of my investigation and highlighting their theoretical implications.

Chapter 2. Data and Analysis

2.1. Introduction

As Chapter 1 outlined, the present investigation takes an approach which integrates formal linguistic theory into a quantitative variationist analysis to provide unique insights into variation and change in English negation. As the concepts that are appealed to in the formal theoretical aspects of my analysis naturally differ depending on the linguistic phenomenon under study, I introduce these at the relevant points of the respective analysis chapters: most substantially, section 3.3 of Chapter 3 for *not-/no-*negation and negative concord, and sections 4.2, 4.4 and 4.5 of Chapter 4 for non-quantificational *never* and *didn't*. This chapter presents details of my data and the methods of sociolinguistic analysis chosen for this investigation. A robust methodology is required to maximise the reliability of results and provide a precedent for potential future studies. The cross-dialectal approach central to this thesis necessitates the careful selection of materials and samples in order to facilitate systematic, reliable comparison between datasets.

Section 2.2 outlines the socio-historical background of the three localities under study – Glasgow, Tyneside and Salford – and their respective varieties of English. Section 2.3 introduces the three corpora used in the investigation of these language varieties and presents the speaker samples extracted from each. Section 2.4 explains the processes involved in extracting and coding the data for my three dependent variables. This is followed by explanation of the methods of qualitative analysis (2.6) and quantitative analysis (2.7) adopted for the investigation, before concluding in section 2.8.

2.2. The localities and their varieties

As already noted, this investigation of variation in the expression of negation in English focuses on the varieties spoken in three communities in Northern Britain: Glasgow in Scotland, Tyneside in the North East of England, and Salford in the North West of England. As depicted in Figure 2.1, Glasgow is approximately 240km north-west of Tyneside, while Salford is approximately the same distance from Tyneside in a south-westerly direction.



Figure 2.1: Map of localities⁶

Glasgow, Salford and Tyneside are appropriate locations for my investigation of variation across space because they share similar socio-historical backgrounds. As described below, all three are large urban post-industrial centres with relatively high indices of deprivation compared to other parts of the UK.⁷ Furthermore, the varieties spoken in these areas have similar status as urban, regional varieties with relatively low prestige (Coupland & Bishop 2007). These points of similarity are beneficial to my comparative analysis as it increases the likelihood that any differences found in their respective patterns of linguistic variation reflect actual regional linguistic differences rather than differences on other dimensions, such as social class. Indeed, although all three dialects are varieties of UK English, they have linguistic features that differentiate them (Hughes *et al.* 2013). Comparing how negation behaves in each dialect will uncover the extent to which the factors affecting its use are

⁶ © OpenStreetMap contributors (openstreetmap.org). Data available under the Open Database License (opendatacommons.org) and cartography licensed as CC BY-SA 2.0 (creativecommons.org), with location and distance detail built upon the original. See openstreetmap.org/copyright.

⁷ The figures for Glasgow are from the Scottish Index of Multiple Deprivation (The Scottish Government 2012) while the figures for Tyneside and Salford are from the English Indices of Multiple Deprivation (Office for National Statistics 2015). These two data sources are not necessarily comparable but are used here because there is no UK-wide equivalent.

widespread in English, addressing research questions at the centre of this study (see section 1.7).

2.2.1. Glasgow

Glasgow is a city and broader metropolitan area in the West Central Lowlands of Scotland. Based on mid-2014 estimates, it has a population of around 600,000 people, making it the most populous city in Scotland (National Records of Scotland 2014) and the fourth most populous in the UK (Jones 2014). Glasgow has an industrial heritage whereby textiles, engineering, iron/steelworks and coalmining formed prominent industries in the 19th century (Butt 1996: 96). After the economic depression of the 1930s and throughout the rest of the 20th century, however, the prevalence of heavy industry declined (Pacione 1981: 193). Nowadays, Glasgow scores highly in the Scottish Index of Multiple Deprivation, having contributed the highest national share of datazones in the top-10% most deprived areas in Scotland (The Scottish Government 2012).

The variety of English spoken in Glasgow and the surrounding area is often referred to as the ‘Glasgow dialect’ or ‘Glaswegian’. The dialect can be considered a variety of Scottish English, which itself has been understood as forming a continuum from ‘Broad Scots’ to ‘Scottish Standard English’, with the former associated more with working class speakers (Miller and Brown 1982: 4). As the distinctions between Broad Scots, Scottish Standard English and English English ‘are not discrete, but fuzzy and overlapping’ (Stuart-Smith 2008: 48), I use neutral terminology, ‘Glasgow dialect’, the ‘variety spoken in Glasgow’ or ‘Glasgow English’ to refer to this speech variety spoken in Glasgow and the surrounding area.

2.2.2. Tyneside

Tyneside is an urban area in the North East of England, consisting of the city of Newcastle upon Tyne and the districts of Gateshead, North Tyneside and South Tyneside. Although the city of Newcastle upon Tyne is small compared to Glasgow (with c.280,000 residents), the Tyneside area as a whole has a population of around 775,000, making it the 7th most populous built-up area in England (Office for National Statistics 2011a). Like Glasgow, Tyneside is steeped in industrial history. The region is particularly famous for its coalmining and shipbuilding in the 18th to 20th centuries (Purdue 2012). It also scores highly on the English government’s Indices of Multiple Deprivation 2015. Newcastle upon Tyne is ranked 30th of

326 local authority districts in terms of the proportion of neighbourhoods it contributes to the top-10% most deprived areas in England (Office for National Statistics 2015).

The variety of English spoken in Tyneside is commonly referred to as ‘Geordie’ (also a name for its native residents) or ‘Tyneside English’. Tyneside English shares many linguistic features with other varieties spoken in the North East of England, i.e. those spoken in Northumberland, Wearside, County Durham and Teesside, which is why these varieties are often studied together as ‘North East English’ (Beal 2004a; Griffiths 2004; Beal *et al.* 2012). North East English is linguistically distinct from dialects spoken elsewhere in the North of England (Trudgill 1990), but there are additional linguistic differences within areas of the North East of England (see Beal 2000: 352), which is why this thesis focuses on the language of Tyneside only rather than the North East of England as a whole.⁸

2.2.3. *Salford*

Salford is a city and broader metropolitan area in the North West of England with a population of around 235,000 (Office for National Statistics 2011b). The area forms part of Greater Manchester, which is the 2nd most populous built-up area in England with c.2,555,000 residents (Office for National Statistics 2011a). From the late 19th century up to the late 1960s, industry in Salford was thriving at Salford Docks, a major port (Raco *et al.* 2007: 125). However, Salford suffered the same decline in industry that Glasgow and Tyneside suffered. As a result of ‘changing shipping technology and trade patterns’ (Raco *et al.* 2007: 125), the docks closed in 1982. The docks area has, however, undergone major regeneration since then – ‘Salford Quays’ now hosts commercial, residential and recreational facilities (Roodhouse 2006: 82) and is also home to the MediaCityUK site used by companies including national television channels and the University of Salford (Media City UK 2016). On the English Indices of Multiple Deprivation 2015, Salford ranks similarly highly (16th) to Newcastle (30th) out of the 326 local authority districts in terms of the proportion of neighbourhoods it contributes to the top-10% most deprived areas in England (Office for National Statistics 2015).

⁸ People from parts of the North East other than Tyneside, especially Sunderland (Wearside), also may not necessarily identify with the ‘Geordie’ identity that is so intrinsic to Tyneside (Beal 2004b; Burbano-Elizondo 2008: 106; Pearce 2009).

‘Salford English’ as a variety is rarely discussed in its own right, but Salford resides in the Greater Manchester area in which the Manchester dialect, also called ‘Mancunian’ or ‘Manc’, is spoken. Findings from perceptual dialectology indicate that Greater Manchester comprises several sub-areas that have distinctive linguistic characteristics and identities. Carrie and Drummond (2015) asked participants from Greater Manchester to draw lines on a map of the county to indicate where they thought that people spoke differently and to write down words that described their opinions of each area. The Salford area was one of five major parts of Greater Manchester that were distinguished, with the words ‘rough’, ‘broad’, ‘strong’, ‘common’ and ‘scally’⁹ used to describe it. The findings led Carrie and Drummond (2015) to conclude that the perceived language variation within Greater Manchester is influenced by social stereotypes about speakers living in the different areas. Because of these potential linguistic and identity differences between Salford and other parts of Greater Manchester, in this thesis I refer to the variety of English spoken by people from Salford as the ‘Salford dialect’, the ‘variety spoken in Salford’ or ‘Salford English’ rather than ‘Manchester English’.

Comparing the three varieties of English spoken in Glasgow, Tyneside and Salford is illuminating because they share certain linguistic properties as Northern UK dialects but there is potential for variation in the realm of negation in particular. For example, Scottish varieties of English have distinctive features of negation not found in other Northern English dialects (e.g. *no* meaning “not” and *-nae* as a cliticised negator like *n’t* (Anderwald 2003)), as does Tyneside (e.g. *divn’t*, Beal *et al.* 2012).

2.3. The corpora and samples

Having summarised the socio-historical and linguistic background of Glasgow, Tyneside and Salford, I now introduce the corpora that were used for the analysis of negation in the three localities. These are the *Sounds of the City* corpus (Stuart-Smith & Timmins 2011-14), the *Diachronic Electronic Corpus of Tyneside English* (Corrigan *et al.* 2010-12) and the *Research on Salford English* corpus (Pichler 2011-12). These three independent electronic corpora contain recordings of informal conversation with native speakers of the respective local dialects. An essential part of any comparative work of this nature is to maximise comparability between the different datasets (D’Arcy 2011) and, as such, socially-stratified

⁹ *Scally* is a dialect word that refers to a ‘young working class person’, particularly ‘a roguish, self-assured male’ who is ‘typically regarded as boisterous, disruptive, or irresponsible’, or even ‘a chancer’ or ‘a petty criminal’ (“scally, *n.*”, OED Online).

samples of speakers were selected from each corpus in a principled way. Sample selection was guided by my research questions which focus on the linguistic constraints on negation and its distribution according to external factors in the different dialects. The samples are stratified according to speaker age for its potential to reveal ongoing linguistic change as well as speaker sex as a possible correlate of linguistic variation (see section 2.5.2 for full details of the choice of external factors). This section explains the background of these corpora, the demographic of the speaker samples, and their comparability.

2.3.1. *Glasgow: Sounds of the City corpus*

The Glasgow data was recorded in 1997 and 2003¹⁰ as part of *The Glasgow Speech Project* at the University of Glasgow (Stuart-Smith & Timmins 2006). These recordings now constitute part of the *Sounds of the City* corpus.¹¹ Speakers were recorded in self-selected dyads matched for age, sex and social class. The majority of the recordings were made by the same fieldworker, who left the room for each one. Participants talked freely about topics of their choice for 25-55 minutes. Although speakers occasionally refer to the presence of the microphone, the style and content of the speech (often addressing personal issues) suggests that the speakers were comfortable with the recording situation, as Macaulay (2009: 86–7) also remarks with respect to the same set of recordings. As such, the effect of the Observer’s Paradox (Labov 1972d: 209) appears to be minimal.

The sub-sample of recordings selected for my analysis are conversations between speakers who had been born and/or raised (and continued to reside) in the working class area of Maryhill in the North West of the City of Glasgow, which consists of ‘Maryhill proper, the Wyndford estate, Ruchill, and Possil towards the city centre’ (Stuart-Smith *et al.* 2007: 230). The Maryhill area is a tight-knit community with ‘relatively low active or passive mobility’ (Stuart-Smith *et al.* 2007: 230). The younger speakers from this community are aged 13-14 (those recorded in 1997) or 14-15 (those recorded in 2003) and were invited to participate through their school (the recording venue), which was classed as an ‘urban working class’ institution based on criteria including the percentage of exam passes, students pursuing further education and students receiving clothing grants (Stuart-Smith 1999: 188). The adults were all

¹⁰ ESRC grant (R000239757) awarded to Jane Stuart-Smith for the project ‘Is TV a contributory factor in accent change in adolescents?’ (2002-2005).

¹¹ Leverhulme Trust grant (RPG-142) awarded to Jane Stuart-Smith for the project ‘Fine phonetic variation and sound change: A real-time study of Glaswegian’ (2011-2014).

within the bracket of 40-60 years old at the time of recording (individual ages are not available) and were invited to participate through institutions where the researchers had existing contacts, such as a women’s centre (Stuart-Smith *et al.* 2007).

Although middle-class speakers were also recorded as part of the same project (Stuart-Smith *et al.* 2007), these recordings are not used in the present work. This is because the corpora to which the Glasgow data is compared either contain few middle-class speakers (the Tyneside corpus – see section 2.3.2) or none at all (the Salford corpus – see section 2.3.3). My samples therefore consist of only working class speakers, which is desirable for a study of dialectal variation such as my own, since working class speakers tend to produce non-standard variants at higher frequencies than middle-class speakers (Trudgill 1972: 19; Labov [1966] 2006). The 2003 data also featured recordings between 10-11 and 12-13 year-olds (Macaulay 2005: 24–5; Stuart-Smith & Timmins 2006: 173), but these are similarly not used in the present study. Only the 14-15 year-olds were chosen from the 2003 recordings since they are closest in age to those recorded in 1997 (13-14 years old). This selection of ages is appropriate given that speakers aged between 15 and 24 have the highest frequencies of innovative variants (Guy 2011: 182). Appendix A shows the sub-corpus of speakers that constitute my Glasgow data: 16 recorded in 1997 and 24 recorded in 2003. Speaker NKOF4 was recorded twice because her conversational partner in gsp_int15 withdrew consent for their speech to be used for research purposes. Table 2.1 below collapses these speakers into social groups, age and sex, to show the overall social stratification of the sample.

Age	Sex		Total
	M	F	
13-15	10	10	40
40-60	10	10	

Table 2.1: Summary of Glasgow sample

2.3.2. *Tyneside: The Diachronic Electronic Corpus of Tyneside English (DECTE)*

DECTE (Corrigan *et al.* 2010-2012) is an archive of sociolinguistic interviews recorded with speakers born, raised and living in the North East of England. The corpus brings together materials from three separate sub-corpora (the *Tyneside Linguistic Survey*, *Phonological Variation and Change* corpus and the *Newcastle Electronic Corpus of Tyneside English 2*)

recorded in the 1970s, 1990s and 2007-present, respectively.¹² The recordings used in the present work were selected from those made in 2007-2011 because these are most comparable to the recording dates of the materials from Glasgow (1997, 2003) and Salford (2011-12). Each sociolinguistic interview was recorded by a different student fieldworker with two interviewees, speakers of Tyneside English, who know each other personally. The fieldworkers used an interview schedule that they constructed based on Tagliamonte (2006), but they were encouraged to go ‘off-schedule’ and allow the interviewees to talk amongst themselves as much as possible, with a view to eliciting vernacular speech and reducing the impact of the Observer’s Paradox (Labov 1972d: 209).

Although DECTE contains recordings from speakers across the North East of England, my Tyneside sample comprises speakers who had been born in the boroughs of Newcastle upon Tyne, Gateshead or North Tyneside and lived in one of those areas at the time of recording. This selection was made due to potential differences in language use and identity between speakers from different parts of the North East, as mentioned in section 2.2.2.¹³ In selecting speakers from DECTE, I endeavoured to maximise comparability between the three datasets representing the three varieties under investigation. Firstly, only same-sex pairs of interviewees were chosen from DECTE, because the speakers in the Glasgow and Salford corpora also formed same-sex pairs. Secondly, only working class speakers were chosen. Speakers’ social class was established by consulting the demographic information provided in the corpus metadata, just as for Glasgow and Salford. I selected only speakers who had been categorised as ‘working class’ and whose occupation, parents’ occupation and education supported this interpretation when these were considered in conjunction with the classifications in the *Standard Occupational Classification 2010* (Office for National Statistics 2010). Thirdly, speakers were chosen to be close in age to the younger (13-15) and older (40-60) Glasgow speakers. A direct match was not possible because DECTE does not include speakers as young as 13-15 and has a relatively low percentage of 40-60 year-olds. Since university students conduct the interviews, there is a natural bias towards speakers

¹² The TLS (see Pellowe *et al.* 1972) and the PVC corpora (see Milroy *et al.* 1999), formed the original *Newcastle Electronic Corpus of Tyneside English* (NECTE, see Allen *et al.* 2007). NECTE2 was the subsequently-developed monitor corpus (Corrigan and Buchstaller 2007-2010).

¹³ The Tyneside conurbation also includes the borough of South Tyneside (see section 2.2.2), but speakers from this area were not included in the sample because it was deemed desirable for the selected speakers to be from a relatively small geographical area. Furthermore, South Tyneside is comparatively closer to Sunderland, where Wearside English is spoken, than Gateshead and North Tyneside are.

under the age of 25 (e.g. their friends and flatmates). To ensure that there was a sufficient number of speakers in the Tyneside sample, it was therefore necessary to expand the range of ages that comprise ‘younger’ and ‘older’ speakers respectively, resulting in a final sample of younger speakers aged 18-25 and older speakers aged 43-78. Full details are given in Appendix B but Table 2.2 provides a summary where the speakers are grouped into social categories of age and sex.

Age	Sex		Total
	M	F	
18-25	12	9	21
43-78	6	7	13
Total			34

Table 2.2: Summary of Tyneside sample

2.3.3. *Salford: Research on Salford English (RoSE) Corpus*

The third and final dataset is from the *Research on Salford English* (RoSE) project (Pichler 2011-12), a collection of recordings undertaken in 2011-12 with speakers born and raised in the metropolitan area of Salford¹⁴ and living there at that time. Six fieldworkers (undergraduate English Language students at the University of Salford) recorded conversations with pairs of speakers, all of which happen to be same-sex. The fieldworkers generally left the room at the start of the interview, leaving the two speakers to talk together. On other occasions, the fieldworker was present for a short period of conversation at the beginning but left the room before returning for a short time at the end. In other recordings, the fieldworker remained throughout the entire recording. Although this inconsistency in interviewer practice is not ideal, the topic of conversation was relatively free in all cases, resulting in a relatively relaxed context. Even when the fieldworker was present, she engaged the speech in natural conversation about everyday topics as a low-key participant, encouraging vernacular speech and reducing the effect of the Observer’s Paradox (Labov 1972d: 209).

The corpus contains 18 recordings in total but one had to be excluded from my sample because a group of people interrupted the recording and joined in the conversation with the

¹⁴ One speaker, Joshua, was born in the city of Manchester rather than Salford.

two participants, with the consequence that this interaction had a different dynamic from the others in this corpus and from the Glasgow and Tyneside recordings. A few interviewees had lived outside the Greater Manchester area for a period, but only for a maximum of 3 years for University study. Therefore, these speakers were retained in the sample. The speakers were considered working class based on the information that they provided regarding their occupation and educational level, again considered in conjunction with the occupational groupings in the *Standard Occupational Classification 2010* (Office for National Statistics 2010). The demographic details for each informant are given in Appendix C. One speaker, Emily, was recorded twice in subsequent years – thus, although there are 17 interviews, there are 33 different speakers. The summary of the sample, showing the number of speakers in the different sex/age groups, is given in Table 2.3.

Age	Sex		Total
	M	F	
17-27	6	6	12
38-63	9	12	21
Total			33

Table 2.3: Summary of Salford sample

2.3.4. *The final sample and cross-corpus comparability*

Using pre-existing corpora for comparative sociolinguistic analysis inevitably results in some inconsistencies in the samples from each. Individual corpora are constructed according to different principles and with different research questions in mind, naturally impacting upon the data (Tognini-Bonelli 2001: 59; D’Arcy 2011). It is impossible to control for every factor that may affect speakers’ language use, particularly situational factors pertaining to the interview context (Buchstaller 2011: 66). That said, ‘an analysis that is done in full awareness of the existence of such factors can yield interesting and diachronically reliable results’, i.e. in tracking variation and change over time (Barnfield & Buchstaller 2010).

Inevitably, some remaining areas of imbalance exist in the final sample, but as Table 2.4 shows, these are relatively minor. Although the number of younger and older speakers differs within and between the Tyneside and Salford datasets, the number of speakers satisfies recommendations for at least 5 per cell (Meyerhoff *et al.* 2015: 22). Moreover, although the precise age range of the ‘younger’ and ‘older’ speakers differs per locality, the average ages

of these groups in Tyneside and Salford (where ages are exact and averages can therefore be calculated, unlike in Glasgow where we only know that the speakers are between 40 and 60) are clearly differentiated. The Glasgow data exhibits perfect symmetry between the cells.

Locality	Recording Year	Age	Sex		Total
			M	F	
Glasgow	1997, 2003	Younger 13-14	10	10	20
		Older 40-60	10	10	20
		Total			40
Tyneside	2007-11	Younger 18-25 (Average 20.7)	12	9	21
		Older 43-78 (Average 58.8)	6	7	13
		Total			34
Salford	2011-12	Younger 17-27 (Average 21.7)	6	6	12
		Older 38-63 (Average 50.8)	9	12	21
		Total			33

Table 2.4: Final sample

The frequency of variants could be affected by factors pertaining to each individual interview situation, which Chapter 6 addresses through empirical investigation. The results show that the frequency of speakers' negative tags as full, reduced or coalesced is affected by the interviewer's variety of English and their relationship with the interviewees, but the core constraints of the negation system retain their significance and reflect the system underlying the variation in usage (see Poplack & Tagliamonte 2001: 93–94).

2.4. Dependent variables, variable contexts and extracting tokens

Variationist sociolinguistic analysis is concerned with the quantitative patterning of linguistic variables, defined as 'alternative ways of "saying the same thing"' (Labov 1972c: 94). As discussed in section 1.4.1, although this notion of the variable was originally considered problematic for the analysis of syntactic or discourse-pragmatic variation where the variants

(unlike phonetic variants) have their own semantic meaning (see Bolinger 1977; Lavandera 1978; Silva-Corvalán 1986 *inter alia*), analyses of these kinds of variation such as my own have proceeded according to a revised conception of the linguistic variable under which the variants have the same referential meaning or function (Dines 1980: 17; Rosenbach 2002: 23). The dependent variables analysed in this thesis, as described in section 1.8 and Chapters 3-6 respectively – *not-/no*-negation and negative concord, non-quantificational *never* and *didn't*, and negative tags – were initially extracted automatically using *AntConc* concordance software (Anthony 2011). As each of my three corpora used a different transcription protocol, my concordance search terms had to include alternative spellings and representations to capture potential orthographic variation (e.g. *no one*; *noone*). Even with this measure in place, however, there is the risk that relevant tokens would be missed due to errors in transcription or the list of alternative spellings not being exhaustive. After all, transcription procedures reflect the aims of each individual research project (Ochs 2006). To overcome this issue, for each dependent variable I listened to all of the individual audio files in the sample to check that (i) no relevant examples had been missed by the automatic extraction; (ii) the tokens that had been automatically extracted did actually exist in the audio; and (iii) that the transcription of the token and its discourse context was correct. This improves the reliability of my analysis as it does not rely solely on the original transcription.

Some of the audio files from DECTE had only been part-transcribed (e.g. 30 minutes of a 45-minute recording). To maximise the number of tokens available for analysis, I listened to the non-transcribed portions to include tokens from there. Listening to the audio files was essential in establishing the precise realisation of the negative tags (e.g. *isn't*, *int it* or *innit*, see Chapters 5 and 6) as well as identifying discourse-pragmatic functions for each variable (see section 2.5.1).

Extracting tokens is only part of the procedure in preparing for the analysis, as many tokens will fall outside the variable context circumscribed for each dependent variable (see section 1.4.1). The decisions regarding the inclusion/exclusion of tokens naturally differ from variable to variable, so they are explained in detail in each analysis chapter. However, certain types of token were consistently removed from every variable context, following standard variationist sociolinguistic practice (Tagliamonte 2006). These are listed below alongside examples from the negative tag data for illustrative purposes.

Tokens where the variant was ambiguous, e.g. tokens that occurred in parts of the sound file where the transcription was uncertain as indicated by < >:

- (15) It feels dead funny without her, <**dunnit**>? [NKYF2, Glasgow]¹⁵

Tokens in false starts:

- (16) it's still there now isn't it wh- where his daughter used to stay at ours **didn't he did-d- didn't she** <unclear> **didn't she** [MD/59, Tyneside]

Tokens in direct quotes, because it is not clear whether the quoted speech repeats the original speaker's utterance exactly or is a paraphrase by the current speaker:

- (17) so she went "Well yeah that's the trend now **innit**?" [Janet, Salford]

Tokens spoken on the telephone, because they belong to a distinct speech scenario outside the interview context and only one person's contributions to the conversation can be heard:

- (18) (*on the telephone*) I had about thirteen and a half but I took a day off **didn't I** with you? [Rebecca, Salford]

2.5. Selecting and coding independent variables

Each of my three dependent variables (*not-/no*-negation and negative concord; non-quantificational *never* and *didn't*; negative tags) was analysed in relation to independent variables that were selected for their potential to affect the variation – both linguistic factors (section 2.5.1) and external factors (section 2.5.2). By including both types of factor in the same regression model (see section 2.7.2), we can establish their significance, direction of effect and strength relative to each other.

¹⁵ Examples from the three datasets are taken *verbatim*, followed by square brackets in which the pseudonym or code for the speaker is given (unless this is provided underneath the text itself, as is the case for longer extracts) along with indication of the dataset from which the example was taken (Glasgow, Tyneside or Salford). All names and other potential identifiers have been changed to preserve anonymity.

2.5.1. Linguistic factors

The linguistic factors chosen as independent variables in my analyses were primarily identified through consultation and synthesis of previous linguistic literature. Factors such as verb type (see Chapter 3) and lexical aspect (see Chapter 5) were coded by closely inspecting each token in its immediate linguistic context. Coding discourse-pragmatic function of various types (see Chapters 3-6) required careful consideration of not only the immediate sentence context of a token, but much longer stretches of discourse. The qualitative methods involved in identifying and coding these functions are explained in section 2.6.

2.5.2. External factors

The first of three external factors analysed as potential predictors of my dependent variables is locality. As Britain (2012: 23) notes, '[i]n the public imagination, geographical origin is the primary differentiator of language variation'. Indeed, it is 'one of the most frequently adduced correlates of linguistic variation' (Johnstone 2004: 65). In comparing patterns of variation between communities that speak different dialects of the same national variety (in this case, British English), we gain insight into which constraints on the variation are consistent cross-dialectally and which are susceptible to localised effects, as well as ascertaining the progress of any ongoing change in different communities. Locality was coded as 'Glasgow', 'Tyneside' or 'Salford' corresponding to the corpus from which each token had been extracted.

The second independent variable featured in every analysis is speaker sex, a classic sociolinguistic variable included here given its propensity to correlate with linguistic variation. Men tend to use more non-standard variants than women in cases of stable variation (Labov 1990, 2001: 266), in what is 'perhaps the most strikingly consistent finding of all to emerge from sociolinguistic dialect studies in the industrialised western world' (Chambers & Trudgill 1998: 61). In cases of linguistic change, however, women often use incoming variants more often than men (Labov 1990, 2001: 274, 292). These are tendencies rather than rules – as Labov (1990: 245) notes, 'there is no way to predict in any given case whether men or women lead at the beginning of a linguistic change'. In this thesis, the variable of speaker sex was coded in a binary manner as 'male' vs. 'female'. That is not to say that a binary classification of sex is suitable for all sociolinguistic studies; ethnographic sociolinguistic research has highlighted the importance of speakers' self-imposed social categories in the

analysis of language variation (Eckert 1989, 2000). Binary classifications of sex/gender have also received some criticism for masking differences within and similarities between male and female groups (Bucholtz 2002; McElhinny 2003). However, I use a binary classification of speaker sex in the present study, for three main reasons. Firstly, my study is based on data from pre-existing speech corpora, so it is not possible to take an ethnographic approach for in-depth exploration of social constructs in my analysis of linguistic variation. Secondly, my research is primarily quantitative, which requires the data to be classified into distinct groups. Thirdly, previous quantitative variationist research that has used a binary classification of sex has found this construct to be a relevant factor in the use of many linguistic variables on various levels of structure including phonetic (e.g. Trudgill 1974), syntactic (e.g. Cheshire 1982) and discourse-pragmatic (e.g. Tagliamonte 2008; Pichler 2013).

The third external variable which is analysed with respect to all three dependent variables is speaker age, chosen because it enables the comparison of linguistic variation in the speech of people born at different points in time to see whether there is evidence of change (Labov [1966] 2006). Since my data is synchronic, my analysis uses the widely-implemented ‘apparent time’ construct (Bailey *et al.* 1991; Labov 1994; Cukor-Avila & Bailey 2013), under which ‘generational differences are compared at a single point and are used to make inferences about how a change may have taken place in the (recent) past’ (Tagliamonte & D’Arcy 2009: 61). In my study, age was coded as ‘younger’ vs. ‘older’. As described in section 2.3, ‘younger’ consists of speakers aged 13-27 while ‘older’ consists of those aged 38-78. Though the use of two age groups does not allow for the investigation of potential age-grading (i.e. where speakers use non-standard variants to a lesser extent in middle age – see Sankoff & Laberge 1978: 241), this is a necessary compromise because of the nature of the corpus data, e.g. the Glasgow corpus containing only speakers aged 13-15 and 40-60 with no information about the individual speakers’ ages. Stability in the patterns between the ‘younger’ and ‘older’ groups in my data would suggest stable variation over time, whereas distinctive patterns between the two groups could suggest either stable age-based differentiation (potentially age-grading) or change in progress (see Labov 2001: 76). In this latter case, previous accounts of the variable in question and other lines of evidence from my own analyses will assist in interpreting the trends.

The analysis in Chapter 6 explores the effect of two additional independent variables in the Tyneside data (the interviewer-interviewee relationship and the interviewer’s variety of English) to examine whether having different interviewers conduct each of the recordings in

DECTE impacts upon the interviewees' realisations of negative tags as phonetically full, reduced and coalesced variants. Details of how these situational factors were coded are given in Chapter 6.

2.6. Qualitative analysis

As mentioned in section 2.5, analysing the discourse-pragmatic function of linguistic items necessitates close inspection of the discourse context. The starting point for such analyses is to consider how previous accounts of discourse-pragmatic function have characterised the variation. With the negative tags in particular (see Chapter 5), there is a large body of work emphasising the multifunctionality of these items. There are differences between the sets of functions that researchers have identified within each study, dependent on their theoretical disposition and data. However, these differences are typically rather superficial, concerning the terminology used and positing two separate functions as compared to one broader function (see Pichler 2013: 173). The previously attested functions therefore form a useful starting point for the analysis of discourse-pragmatic functions in my own data.

Limiting the analysis only to pre-existing categories could, however, result in the failure to identify other relevant functions of these items (see Pichler 2013: 173). I therefore analyse the tokens in my data on a one-by-one basis according to principles of Conversation Analysis, which is concerned with 'the systematic analysis of the talk produced in everyday situations of human interaction: talk-in-interaction' (Hutchby & Wooffitt 2008: 11). Developed from the work of Harvey Sacks, Emanuel Schegloff and Gail Jefferson (e.g. Sacks *et al.* 1974; Schegloff *et al.* 1977), CA uncovers how this talk-in-interaction is organised into units, e.g. openings and closings, turns and repair sequences. A central assumption of CA is that talk is 'always fitted to what has gone before, what a recipient is doing in the moment, and what can be anticipated from a recipient upon completion of a current turn' (Maynard 2013: 25). The object of study is the talk in its immediate conversational context, with no enforcement of existing theoretical assumptions or external observations, e.g. about the social setting in which the talk is situated (Johnstone 2000: 80). Under this kind of approach taken in my analysis, if a given token did not appear to fit into any previously-defined function category, my set of functions was re-evaluated. As the analysis of negative tags in Chapter 5 demonstrates, some previous functions identified in the literature were re-defined slightly to account for their specific use in my data, or were removed because they were not present in my samples. In other cases, a token's function cannot be identified unambiguously, so it was

excluded from further analysis. This procedure strikes an appropriate balance between ‘top-down’ and ‘bottom-up’ analysis, since it incorporates insights from prior research on discourse-pragmatic function but leaves room for re-defining the previously posited categories based on qualitative analysis of the tokens in their discourse context (see Woods 2014: xi; Pichler & Hesson 2016).

The CA view is that function arises ‘only by virtue of its sequential arrangement with other parts of talk’ (Schiffrin 1994: 340). This reflects the overall focus of CA on the organisation of utterances in interaction, not linguistic structure (Sidnell 2015: 167). The sequencing of units of talk certainly is relevant to the expression of function, e.g. in turn-holding and topic closing (see Pichler 2013 on I DON’T KNOW). However, this view ignores the contribution of syntax and semantics, as well as prosodic features, to discourse-pragmatic function. Sequential features (e.g. turn position), linguistic features (e.g. polarity) and prosodic features (e.g. tone) all contribute to the function of tags (Kimps *et al.* 2014), for example. As well as paying attention to the immediate utterance context, it was also necessary to attend to the broader turn unit and surrounding turn units. Having access to the audio files allowed for investigation of important prosodic features such as rising and falling intonation which contribute to discourse-pragmatic function (Cutler *et al.* 1997). Furthermore, prosody correlates with the position of linguistic items in the clause, as Dehé and Braun (2013) and Pichler (2016) demonstrate for tags. Access to the audio therefore assisted in establishing the clause position of the negative tags (Chapters 5-6) as well as *not-/no*-negation and negative concord (Chapter 3) and non-quantificational *never* and *didn’t* (Chapter 4). This was important because all of the variable contexts are at least partly circumscribed with respect to their position in the clause (see the individual chapters for further details).

2.7. Quantitative analysis

Quantitative analysis is fundamental to variationist sociolinguistics (Tagliamonte 2006: 12; Guy 2014) – one of the reasons why the field has been traditionally polarised from formal syntactic theory (see section 1.3). In this thesis, quantitative analysis is used to establish the linguistic and external factors that determine how negation is expressed in English. The two main types of method used are relative frequency (2.7.1) and regression analysis (2.7.2).

2.7.1. *Relative frequency*

The relative frequency of a variant is calculated by counting how many times it occurs in a given (sub-)sample and dividing it by the number of times that it could have occurred, i.e. the number of instances of the *variable*, under the principle of accountability (see section 1.4.1). These distributional analyses are central to variationist sociolinguistics as they provide an indication of how the choice of linguistic variant is affected by independent factors (Tagliamonte 2006: 193). In this thesis, relative frequencies are calculated for cells that contain at least 10 tokens. Percentages are occasionally calculated where there are fewer than 10 tokens, to show the general tendency, but these values are presented in brackets to show that they may be less reliable.

Observing differences in the relative frequency of a variant between one context and others, however, does not necessarily mean that the use of the variant is affected by that context – the result could have arisen by chance. As such, I use a Pearson chi-squared test to establish the statistical significance of the result. The chi-squared test generates a p-value denoting the probability that the distribution was obtained even though the null-hypothesis (that the context has no effect on the variation) should actually be accepted (Gorman & Johnson 2013). The analyses in this thesis adopt the standard variationist threshold whereby $p < 0.05$ is the relevant level of statistical significance, i.e. there is only 5% likelihood that the distribution was obtained even though the null-hypothesis is true (Guy 1993: 236). However, with certain types of distribution, it is not appropriate to use the chi-squared test. Chi-squared tests assume that, for a given distribution, ‘no cell has an expected value less than 1, and no more than 20% of the cells have an expected value less than 5’ (Boslaugh 2013: 131). If these criteria are not met, the p-value is unreliable. Thus, where there is (near-)categorical use of one variant in a particular context, or the total number of observations is small, I refrain from using a chi-squared test.

While relative frequency and the chi-squared test show how variation is affected by various factors, this is only part of the picture. Many independent variables affect variation at the same time, which relative frequency and the chi-squared test cannot account for (Guy 1993: 237). The analysis of variation therefore ‘calls for techniques that take into account the effects of multiple hypotheses simultaneously’ (Walker 2013: 449), such as regression.

2.7.2. *Regression analysis*

Regression techniques were first used in variationist sociolinguistics in the 1970s, with the advent of the ‘variable rule’ and *Varbrul* software (Cedergren & Sankoff 1974; Rousseau & Sankoff 1978; Sankoff & Labov 1979; Guy 1988). The aim was to ‘describe the combined effect of all the features in the environment on the application probability of a rule’ (Rousseau & Sankoff 1978: 58) using fixed-effects multiple logistic regression, a statistical modelling technique that measures the impact of several independent variables on a dependent variable (Johnson 2009). Although the notion of the variable rule is no longer used in sociolinguistics (Fasold 1991), the *Varbrul* software remained popular, as was its repackaged version *Goldvarb* (Sankoff *et al.* 2005). However, recently there has been a shift in variationist sociolinguistics away from these tools (and the fixed-effects models that they generate) towards ‘mixed-effects’ logistic regression in the statistical program *R* (R Core Team 2014) and its user-friendly interface *Rbrul* (Johnson 2009).

These mixed-effects models offer statistical advantages. Fixed-effects models can only include fixed effects – those with distinct variants that ‘are replicable across different data sets, at different times in different places’ (Tagliamonte 2012: 137), including most linguistic factors (e.g. subject type, tense) and external factors (e.g. age, sex). These cannot model random effects, i.e. those ‘drawn from a larger population’ that generally cannot be replicated across studies, such as the individual speaker (Johnson 2009: 365). Fixed-effects models assume that tokens in a model are independent observations, yet speakers differ in the amount of tokens they produce and the extent to which they use a particular variant, meaning that the data is nested (Johnson 2009). In a hypothetical dataset analysing sex, age and social class, every token from John, a working class older male, will necessarily be coded as ‘working class’, ‘older’ and ‘male’. This nesting effect causes fixed-effects models to ‘overestimate – potentially drastically – the significance of external effects’, such as sex, age and social class (Johnson 2009: 363). Mixed-effects models allow for the inclusion of speaker as a random effect, producing more accurate estimates and p-values (Gorman & Johnson 2013), increasing the researcher’s confidence in the significance of any fixed factors (Walker 2013: 454). Each of the mixed-effects logistic regression analyses in this thesis include speaker as a random effect for this reason. In line with standard practice, the effect is noted with a value for the standard deviation, where higher values indicate greater inter-speaker variation in the use of the dependent variable (Johnson 2014).

As Tagliamonte (2012: 132) notes, ‘the nature of the statistical model requires that the factors being tested are orthogonal – that they are independent’. I therefore followed standard variationist practice of carefully studying cross-tabulations of results for two factors at a time (e.g. a cross-tabulation of verb type and function) to check that they were orthogonal before including them in a regression model. In the analysis of interviewer effects in Chapter 6, cross-tabulations revealed potential interactions between variables which were catered for through an ‘interaction group’ in the model.

The models in this thesis are all mixed-effects multiple logistic regressions generated using the *lme4* package (Bates *et al.* 2015) in *R* (R Core Team 2014). The output of these analyses yields a number of values relevant to a variationist analysis. The first set of values are the AIC (Akaike Information Criterion), Log Likelihood and Deviance, which are all measures of how well the overall model fits the data (Fahrmeir *et al.* 2013). These are provided in my results tables for reference purposes only.

My models use *R*’s default setting, ‘treatment coding’, where the researcher must, for each independent variable, select a reference level that acts as a baseline to which the other levels of that variable are compared (Levshina 2015: 146). This differs from the ‘sum coding’ used in *Goldvarb* and the default in *Rbrul* where levels of a factor are given factor weights – values from 0 to 1 that indicate a favouring (>0.5) or disfavouring (<0.5) effect. Using treatment coding, if a factor ‘verb type’ was coded as ‘BE’ vs. ‘HAVE’ and ‘lexical verb’ and the latter was selected as the reference level, the effect of ‘BE’ and ‘HAVE’ on the dependent variable would be depicted relative to ‘lexical verb’. The strength of the effect is represented in each level’s result for the ‘estimate’, a value from $-\infty$ to $+\infty$ calculated in log-odds (Johnson 2009: 361). Positive estimates show that the context favours the application value, i.e. the variant of the dependent variable that the researcher selected to measure, while negative estimates show a disfavouring effect. The larger the integer, the stronger the effect. The levels of factors can be ranked in a ‘constraint hierarchy’, allowing for the comparison of the ranking and strength of factors across varieties in comparative studies of language variation like my own (Tagliamonte 2006: 241). The intercept estimate meanwhile represents the mean log odds for all of the reference levels of the different factors (Tagliamonte & Baayen 2012: 149).

There is another important point of comparison in these models – the level of significance (Tagliamonte 2006: 236). The models include p-values which ‘tell us whether the coefficient is significantly different from zero’ (Baayen 2008: 89). These figures are converted to a

significance level as indicated by the following standard notation: . = < 0.1, * = <0.05, ** = <0.01, *** = <0.001. Sum coding provides one significance value for a factor as a whole (e.g. ‘verb type’), whereas treatment coding provides more detailed insight into the relationships between levels of the factor, as significance values are generated for each level in relation to the reference level.

In addition to the estimate and significance values, my regression results tables also include the Standard Error and Z-values, following standard presentational practice in variationist sociolinguistics (see Tagliamonte & Baayen 2012: 148). The standard error is ‘a measure of the uncertainty about the estimate’, where larger values reflect greater uncertainty (Tagliamonte & Baayen 2012: 149). Z-values are calculated by ‘dividing the estimate by its standard error’ and are used to derive the p-value (Tagliamonte & Baayen 2012: 149). Also included in my tables are the columns ‘N’ and ‘%’ for the total number of tokens per level and the relative frequency of the variant that was selected as the application value of the dependent variable, respectively.

2.8. Conclusion

This chapter has presented details of the data sources used in my investigation of variation in English negation – three regional corpora of Glasgow, Tyneside and Salford English. Though any comparative study of pre-existing corpora requires some compromise, because every corpus is different, this chapter has demonstrated that the selection of socially-stratified speaker samples from each corpus maximises the comparability between them. The methods of data extraction and coding have been introduced to foreground the more detailed, variable-specific explanations in the analysis chapters for each: *not/no*-negation and negative concord (Chapter 3), non-quantificational *never* and *didn’t* (Chapter 4) and negative tags (Chapters 5 and 6). The qualitative and quantitative analysis of the discourse-pragmatic functions of these items, alongside other linguistic and external variables, will enable me to disentangle the significance and relative impact of these factors in the patterns of variation and uncover the underlying structure of the grammar.

Chapter 3. *Not-Negation, No-Negation and Negative Concord*

3.1. Introduction

Not-negation, *no*-negation and negative concord are three means of marking negation in a predicate containing an indefinite pronoun or determiner of the form *any*-. These *any*- forms belong to a group of words and expressions called NPIs, which are licensed only in specific contexts, most prototypically negation (Krifka 1991: 150; van der Wouden 1997: 4). This chapter examines the relative importance of syntactic, discourse-pragmatic and external factors in the selection of these variants in the dialects of English spoken in Glasgow, Tyneside and Salford.

In *not*-negation, shown in (19), the negative marker *not* or *-n't* appears on the verb, which scopes over an indefinite DP with the form *any*-. *No*-negation, on the other hand, has negation that appears to be incorporated into the indefinite DP, realised as a *no*- form, as in (20). In addition to these two Standard English variants, there is a non-standard alternative: negative concord. Negative concord, as described in section 1.2 and shown in (21), is the phenomenon whereby ‘negation is interpreted just once, though it seems to be expressed more than once’ (Giannakidou 2000: 87). Thus, although in (21) there appear to be two surface instantiations of negation (*n't* on the verb and a negative indefinite, *no*), it is interpreted as having the same truth conditional meaning as (19) and (20).¹⁶

(19) *Not*-negation
She hasn't got **any** money.

(20) *No*-negation
She's got **no** money.

(21) Negative concord
She hasn't got **no** money.

¹⁶ As noted in section 1.2, sentences with two instantiations of negation can sometimes have a ‘double negation’ reading where there are two negatives in the interpretation (e.g. *she doesn't have no money*=‘she has some money’). Examples with this meaning fall outside the present variable context since they differ in meaning to *not*-negation, *no*-negation and negative concord.

Previous accounts have referred to *not*-negation and *no*-negation as ‘analytic vs. synthetic’ (Poldauf 1964), ‘syntactical vs. morphological’ (Dahl 1979) and ‘*any*-negation’ vs. ‘*no*-negation’ (Childs *et al.* 2015), respectively. *No*-negation has alternatively been called ‘NEG-incorporation into indefinites’ (Klima 1964), ‘negative postposing’ (Labov 1972a) and ‘negative rightshifting’ (Bolinger 1977). I will adopt the terms *not*-negation and *no*-negation throughout since these labels refer specifically to the forms *not* and *no* that mark negation with indefinites. Following Tottie (1991b: 89), I will use these terms to apply ‘to all indefinite items incorporating NEG and not just the determiner *no*’, thus including *nothing*, *nobody*, etc. as presented in section 3.6.

Quantitative variationist research into negation with indefinite items has overwhelmingly focused on either (i) *not*-negation vs. *no*-negation only, or (ii) negative concord only. The analyses of type (i) tend to be corpus-based comparisons of *not*- and *no*-negation in written and spoken genres of standard varieties of English (Tottie 1991a, b; Peters 2008; Peters & Funk 2009; Varela Pérez 2014). Negative concord does not feature in these studies because Standard English does not permit this non-standard, stigmatised feature (Anderwald 2002: 101). Although negative concord was lost from the standard centuries ago (see section 3.2), it remains widespread in non-standard varieties of English as a ‘vernacular universal’ (Chambers 2004, 2012). As such, the studies of type (ii) have primarily focused on the frequency and distribution of negative concord in dialects of English worldwide (Kortmann & Szmrecsanyi 2004; Szmrecsanyi 2013). There have also been many formal analyses positing the underlying structure and constraints of negative concord (e.g. van der Wouden 1997; Zeijlstra 2004; Horn 2010b *inter alia*; Blanchette 2013). However, to my knowledge, the only variationist sociolinguistic study to date which considers variation between three variants of *not*-negation, *no*-negation and negative concord is Childs *et al.* (2015), where we analyse the variable in two areas of Northern Britain (North East England and York, North Yorkshire) and two locales in Ontario, Canada (Belleville and Toronto).

In this chapter, I analyse *not*-negation, *no*-negation and negative concord as three variants of a single linguistic variable, as supported by observations from previous studies including Labov (1972a), Weiß (2002) and Zeijlstra (2004). My investigation incorporates argumentation from formal syntactic theory into a quantitative variationist analysis, as knowledge of the syntactic structure of the variants allows for more careful delimitation of the variable context, i.e. which tokens ought to be included in the final sample and which should not because they are not semantically equivalent and/or arise due to different syntactic operations. The analysis

explicitly tests two different accounts of how the three variants are derived. Under Account 1, the variants have the same underlying structure with a negative marker/operator in NegP which *no*-forms agree with (based on Zeijlstra 2004), while Account 2 posits a different structure for *no*-negation where negation is marked inside the indefinite post-verbal DP and moves to NegP to receive sentential scope (based on Kayne 1998; Svenonius 2002; Zeijlstra 2011). These two accounts make different predictions about the distribution of *not*-negation, *no*-negation and negative concord, which I test via quantitative variationist analysis of the corpus data to assess which theory best accounts for the variation. This analysis will also reveal the relative strength of linguistic (and social) factors on the variation to shed light on the current status of the diachronic change from *no*-negation to *not*-negation identified in previous research (Tottie 1991a, b; Varela Pérez 2014). The aims of the chapter are as follows:

- (i) to establish the extent to which *not*-negation, *no*-negation and negative concord are conditioned by the same internal linguistic factors (verb type and the complexity of the verb structure) and discourse factors (whether the proposition expressed is discourse-old or new) cross-dialectally in Glasgow, Tyneside and Salford English;
- (ii) to explore whether external effects (speakers' sex, age and locality) offer evidence of a long-term change in progress from *no*-negation to *not*-negation;
- (iii) to use distributional and regression analysis to evaluate the evidence in favour or against two potential syntactic structures for *no*-negation.

Section 3.2 summarises the origins of these three variants and their competition throughout the history of English. Section 3.3 presents discussion of the syntax of negation in English including arguments for each of the two accounts of the variation. Previous research on *not*/*no*-negation is summarised in section 3.4, followed by summary of studies into negative concord in section 3.5, since they have typically been investigated separately in previous work. Section 3.6 gives detailed description of my variable context and data extraction while the coding procedures are explained in section 3.7. Section 3.8 presents the results of the quantitative analysis of the variable in the data from Glasgow, Tyneside and Salford, before the discussion in section 3.9.

3.2. Historical background

To understand the present-day use of *not*-negation, *no*-negation and negative concord, it is first useful to consider their relationship and development throughout the history of English. The English negation system has undergone a number of changes over time in what is known as Jespersen's Cycle (Jespersen 1917), a series of stages whereby negative markers weaken then strengthen in meaning (van Kemenade 1998; van Gelderen 2010; Wallage 2012). In Old English, sentential negation was typically marked with the particle *ne* which appeared pre-verbally (Fischer *et al.* 2000: 308–9). During this period, *ne* could be followed post-verbally by an adverb including those with an incorporated negative such as *nawiht/nowiht*, *nauht/nouht* or *na/no*, which could add emphasis (Jespersen 1940: 127; Rissanen 1998: 190). The particle *ne* was 'pronounced with so little stress that it was apt to disappear altogether' (Jespersen 1917: 9), which led to the post-verbal element *not* (derived from *nawiht*) becoming compulsory in Middle English, e.g. *I ne seye not* ("I don't say") (Zanuttini 1997: 12).¹⁷ The English language therefore changed from marking negation with a single element (Stage 1 of Jespersen's Cycle) to having negative concord (Stage 2). At Stage 3, the second element became the negator and the first element was optional. At this time, in the late 15th and 16th centuries, negative concord was declining and the use of *not*-negation 'was a selective process from above in terms of the speaker-writer's education and social status' (Nevalainen 2009: 580). By the final stage of Jespersen's Cycle, in the Early Modern English period, the first element was lost completely and *not* became the sole marker of negation on the verb, which has prevailed in modern Standard English (Wallage 2012: 4).

As characterised by Stages 2 and 3 of Jespersen's Cycle from the late 12th century to the end of the 14th century, negative concord was the *de facto* means of expressing negation in Standard English (Ingham 2013: 143). Scholars traditionally thought that the construction began to decline in use at the start of the Early Modern English period because of the influence of the prescriptive grammars of Latin (a language without negative concord) that were published during that period (Anderwald 2002: 114). However, recent corpus-based analyses have shown that the reduction in the frequency of negative concord started as early

¹⁷ As Aitken (1979: 87–88) notes, Early Northern Middle English developed into two major varieties: Early Scots and Northern Middle English. In Scotland, *not* and *-n't* were not used until after the 16th Century. Up until that time, speakers of Scots varieties used their equivalents, *no* and *-na*, respectively. After this period, the Scottish English negation system followed similar trajectories to the standard variety spoken in southern England.

as the 14th and 15th centuries, continuing to around 1600 (Mazzon 1994: 164; Iyeiri 2002a, b; Nevalainen 2009: 580), after which the construction was eventually lost from the standard. Prescriptive grammars therefore helped to further advance a change that was already well in motion (Mazzon 1994; Nevalainen 2009: 581), though the reason behind the initial decline is unknown.

Not-negation is the newest variant of the three studied in this chapter (Tottie 1991a, b; Nevalainen 1998). Tottie's (1991a) analysis of the Old English and Early Modern English materials in the *Helsinki Corpus of English Texts* in conjunction with the *Lancaster-Oslo/Bergen Corpus of Written English* (LOB) and *London-Lund Corpus of Spoken English* (LLC) (which contain materials from the mid-1950s to the mid-1980s) tracked the trajectory of change for *no*-negation and *not*-negation. Results suggested that pre-verbal *ne* was first replaced by *not* and later the development of *no*-negation into *not*-negation began 'when *not* was fully available in late Middle English or Early Modern English' (Tottie 1991a: 461). The inception of *not*-negation appears to have led to a gradual diachronic decrease in *no*-negation, supported by corpus-based analysis revealing a reduction in the frequency of *no*-negation since the 17th century (Tottie 1991a: 462). Varela Pérez's (2014) analysis of the variation is consistent with this interpretation as he observed a 7.5% decline in the frequency of *no*-negation between the *Survey of English Usage* (SEU) spoken materials (from the late 1950s up to the early 1970s) and the spoken component of the Great Britain sub-corpus of the *International Corpus of English* (ICE-GB) from the early 1990s. He also finds some apparent-time evidence for the change (though significant only in the SEU data) as 18-25 year-olds use *no*-negation less than those aged 46+, but the effect is not consistent as 26-45 year-olds use *no*-negation less than both the 18-25 and 46+ year-olds. Although Varela Pérez (2014) does not posit an age-grading explanation for these trends, this is in keeping with Childs *et al.*'s (2015) evidence of age-grading in their data from North East England and York, North Yorkshire which they propose may reflect the prestige that *not*-negation had when it was first adopted by more educated and higher social class speakers (Nevalainen 2009: 580).

The literature therefore suggests that English has been experiencing a longitudinal change from *no*-negation to *not*-negation. Both of these variants are available in Present-Day Standard English, while in non-standard varieties there is three-way competition between *not*-negation, *no*-negation and negative concord. My analysis explores whether there is evidence of this change in the Glasgow, Tyneside and Salford dialects.

3.3. The syntax of negation with negative indefinites in English

I begin this section with discussion of theoretical accounts of negative concord in English (3.3.1). This is followed by the presentation of two potential accounts of the variation between *not*-negation, *no*-negation and negative concord, including the hypotheses derived from each (3.3.2) which will be tested in my quantitative analysis.

3.3.1. Accounting for negative concord in English

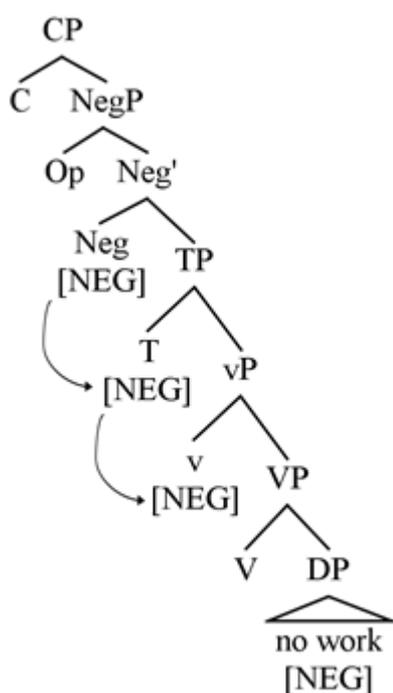
As noted in section 3.1, Standard English does not permit negative concord, meaning that sentences like *he didn't see nothing* receive a double negation interpretation (“he saw something”). However, Zeijlstra (2004: 278) proposes that English is ‘underlyingly an NC [negative concord] language’. A number of observations support such a conclusion. Firstly, ‘all languages with a preverbal negative marker are NC [negative concord] languages’ and English fits into this group because of its enclitic *n't*, which is considered a pre-verbal marker given that it attaches to the finite verb (Zeijlstra 2004: 145). Secondly, NPIs of the form *any-* that occur with *not*-negation are underlyingly similar to the *no* forms that arise in negative concord constructions in other languages (Zeijlstra 2004: 278). Thirdly, double negation is rare (Zeijlstra 2004: 278) and some have suggested that it requires an additional focus operator on the negative indefinite (Biberauer & Roberts 2011; Puskás 2012; Blanchette 2013).¹⁸ Negative concord, on the other hand, is one of the most widespread and frequently occurring features of non-standard Englishes (Chambers 2004, 2012; Kortmann & Szmrecsanyi 2004). Even speakers who use negative concord almost categorically can style-shift and use another variant (Labov 1972a: 806). Furthermore, speakers of Standard English who do not use negative concord can still interpret it – in fact, it is reportedly easier to parse than double negation (Coles-White 2004). These observations are consistent with the proposal that negative concord can be generated in all varieties of English and it is simply not realised in Standard English due to external standardisation pressures (Weiß 2002: 138; Blanchette 2013). English in fact has an unusual status typologically as it is in a transitional stage from a double negative system to a negative concord system (Zeijlstra 2004: 146).

¹⁸ As Anders Holmberg points out (personal communication, 19 November 2014), sentences with both *n't* and *not* such as *you can't not like her* may be an exception and not require focus. Such examples also cannot be interpreted as negative concord.

Syntactic accounts of negative concord have to account for the fact that two seemingly negatively-marked items only contribute a single instance of negation in the meaning. One of the major approaches, the NEG-criterion theory (Haegeman 1995), suffers in this regard. Developed from the *wh*-criterion (May 1985; Rizzi 1996), the NEG-criterion is a syntactic constraint under which negative concord arises as a result of Spec-Head agreement between the negative indefinite in specifier position and the negation that resides in the head position of NegP (Haegeman 1995). However, if negative indefinites are semantically negative, it is not clear why negative concord constructions are interpreted as having a single instance of negation rather than two (Penka 2011: 34–5).

Blanchette (2013) can account for this under her proposal that negative concord involves feature-spreading and merge. As shown in (22), the head of NegP is marked [NEG]. The feature spreads to the head of TP (which NegP dominates) and, from there, to little-*v*. This feature spreading results in the creation of ‘The [Neg] Chain’. A verb that has a DP complement with *no* (as in *no*-negation) is considered a further instantiation of [NEG] that is separate from the [Neg] Chain. The Chain and the instance of [NEG] in the DP *no work* are merged separately, but because they reside in the same phrase, ‘the interpretive module reads these separately merged features as a single negation’ (Blanchette 2013: 20). However, while Blanchette (2013: 23) claims that the process is ‘compositional in the sense that the negative component of the expression is transferred over to the semantic module’ and the negation is ‘a single negative object’, the mechanism behind this is unclear.

(22) The NEG-Chain (see arrows) and the second instantiation of [NEG] in *no work*



(Blanchette 2013: 19-20)

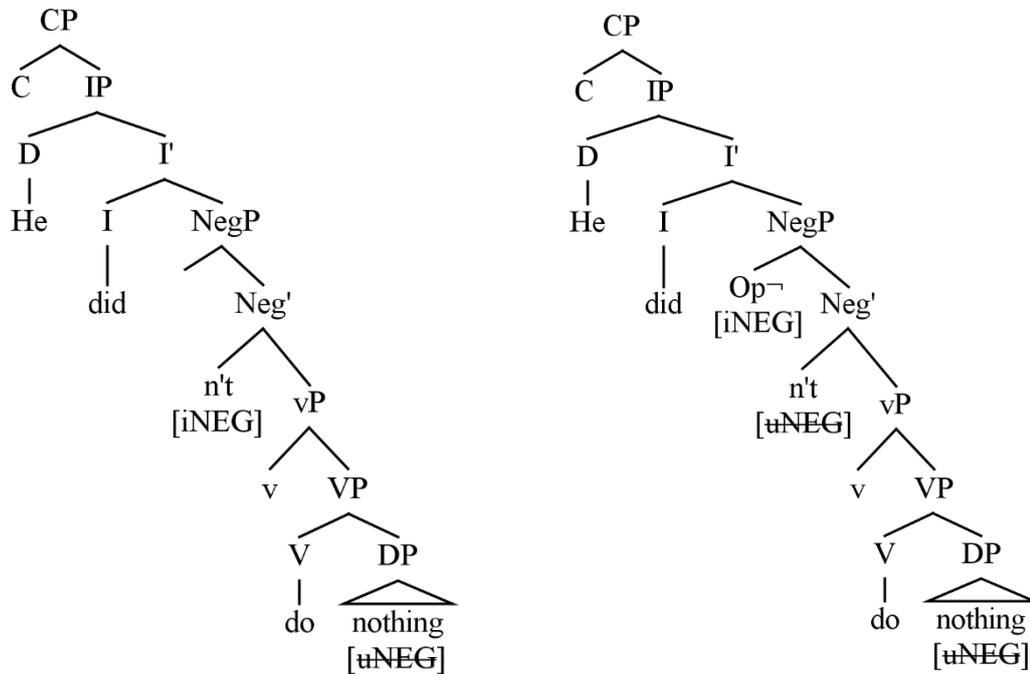
This problem can be overcome in an analysis which assumes that there is only one interpretable negative feature in a negative concord construction. The interpretable feature enters a syntactic relation with one or more uninterpretable negative features lower in the syntactic tree, e.g. via movement and feature-checking (Weiß 2002) or Multiple Agree (Zeijlstra 2004). Zeijlstra (2004) proposes that in strict negative concord languages (see section 1.2), negative markers and negative indefinites have an uninterpretable negative feature, [uNEG]. These forms are not semantically negative, but they must enter into an Agree relation with a c-commanding negative operator in SpecNegP which has the feature [iNEG], to have their uninterpretable feature checked and deleted. Therefore, negative concord ‘is the result of multiple Agree between Op_{\neg} , the negative marker and any present n-words’ (Zeijlstra 2004: 249). In non-strict negative concord languages (see section 1.2), the process operates in the same way but the negative marker has the feature [iNEG] as it is ‘the realisation of the negative operator’ (Zeijlstra 2004: 258).¹⁹ Indefinites ‘introduce a free

¹⁹ If the negative operator is in SpecNegP in strict negative concord varieties, then the proposal that the negative marker in non-strict varieties is ‘the realisation of the negative operator’ (Zeijlstra 2004: 258) may suggest that the negative marker will again be in SpecNegP. However, this would conflict with the assumption that *n’t* is the head of NegP (Zeijlstra 2004: 175). Hedde Zeijlstra (personal communication, 17 December 2014) notes

variable that needs to be bound by an existential closure' and therefore have to be bound by the [iNEG] operator for [uNEG] to be deleted (Zeijlstra 2004: 237). Below is a structural representation of non-strict and strict negative concord in English under this analysis.

(23) a. Non-strict negative concord

b. Strict negative concord



(adapted from Zeijlstra 2004: 258)

The postulation of a covert operator must be adequately restricted so as to prevent an apparently affirmative sentence from being interpreted as having the same meaning as its corresponding negated sentence (Penka 2011: 50). Zeijlstra (2004) accounts for this, arguing that NegP is only present in languages with syntactic negation (i.e. [uNEG] features) and NegP is projected when there is a negative head marker with [uNEG] that needs checking. Zeijlstra (2004) demonstrates the typological breadth of the theory by applying it to several languages including English, French, Dutch, Bavarian and Czech, which differ in terms of their current stages in the Jespersen Cycle and, as such, behave differently with respect to negation phenomena.

that the negative operator does not necessarily need to be in SpecNegP and that the fundamental distinction between strict and non-strict negative concord is that in the former *n't* is an agreement marker with [uNEG] but in the latter it is a negative operator with [iNEG].

3.3.2. *The derivation of not-negation, no-negation and negative concord*

As outlined in section 3.3.1, accounts of negation which assume that negative indefinites are inherently negative have been criticised for not being able to straightforwardly explain why these same items do not express negation in negative concord constructions (see Penka 2011: 34–5; Zeijlstra 2004, 2011; Tubau 2016: 150). Account 1 and 2 presented in this chapter take a different approach, proposed by Zeijlstra (2004, 2011): negation is the result of a negative operator with an interpretable negative feature, which must agree with other items within its c-command domain that have uninterpretable negative features. As is ideal for comparative purposes, Account 1 and 2 differ in only one fundamental respect. While Account 1 assumes that *no*-forms in both *no*-negation and negative concord are licensed by a negative operator in NegP, Account 2 assumes that *no*-forms are licensed in the same way as in Account 1 for cases of negative concord, but DP-internally for *no*-negation. If English is ‘underlyingly an NC [negative concord] language’ (Zeijlstra 2004: 278), *not*-negation, *no*-negation and negative concord might have the same underlying syntactic structure, as assumed in Account 1. However, some have argued for an analysis more in line with Account 2 (Kayne 1998; Svenonius 2002; Zeijlstra 2011; Tubau 2016). Testing these two particular alternatives therefore allows us to establish whether the *no*-forms that appear in *no*-negation and negative concord are the same (Account 1) or constitute two different items (Account 2).

Although he leaves the matter for further research, Account 1 is in line with Labov’s (1972a: 813–4) suggestion that it may be viable ‘to combine negative postposing [*no*-negation] and NEGCONCORD into a single rightward transformation’. Furthermore, evidence from VP-ellipsis would suggest that *any*- and *no*- forms are derived from the same structure. If (24a) was pronounced whole, a response from an interlocutor might be (24b) – either the full sentence or the equivalent with VP-ellipsis (*there seldom is*). It is generally assumed that VP ellipsis requires the meaning of the elided VP to be recoverable from the antecedent VP (Merchant 2001: 26–9; Aelbrecht 2010: 1). However, notice that in (24a) the bracketed indefinite is *no one* while in (24b) it is *anyone*. The form *no one* in (24a) can therefore be derived from *anyone* plus a covert negation which is not copied under VP-ellipsis because it is in NegP, outside the VP (Weiß 2002: 137).

- (24) a. There was [no one around]
 b. There seldom is [anyone around]

(Weiß 2002: 137)

Negative elliptical answers pose a problem for the above analysis. For example, a response to the question *what did Mary see?* could be *nothing* (i.e. *Mary saw nothing*). Assuming that negation is marked covertly within NegP leads us to say that the negation has been elided, i.e. [*Mary NEG saw*] *nothing*. However, *nothing* cannot be licensed by an elided negation, because there is not an antecedent for it (see Watanabe 2004) - the question *what did Mary see?* is not marked for negation. As Watanabe (2004) explains, proposing that the negation has been elided is problematic because it prevents us from distinguishing between an affirmative and a negative. If the answer to *what did Mary see?* was *elephants*, this analysis would incorrectly imply that we could interpret *elephants* as meaning [*Mary didn't see*] *elephants*. Watanabe (2004) argues that this issue can be overcome if we assume that negative indefinites are inherently negative. However, additional mechanisms have to be postulated to account for the non-negative meaning of these same indefinites in negative concord,²⁰ which have been criticised (see Penka 2011: 34–5; Zeijlstra 2004, 2011; Tubau 2016: 150).

Under Account 1 in which negative indefinites are not inherently negative, we must assume, as Zeijlstra (2004: 259, 271) proposes, that *no*-forms used as fragmentary answers and pre-verbally have [uNEG] and are immediately c-commanded by a covert negative operator. The covert operator is a ‘last resort’ inserted only in structures where [uNEG] features are present and require checking (Zeijlstra 2004), which allows for the affirmative and negative alternatives described above to be differentiated. This introduces another issue: under

²⁰ This is also true of other languages such as Spanish, where *nadie* can feature in negative concord as in (i) but also in elliptical answers as in (ii).

- (i) No vino nadie.
 Not came n-body.
 ‘Nobody came.’

- (ii) Q: A quién viste?
 Whom saw-2S
 ‘Who did you see?’

A: A nadie.
 n-body
 ‘Nobody.’

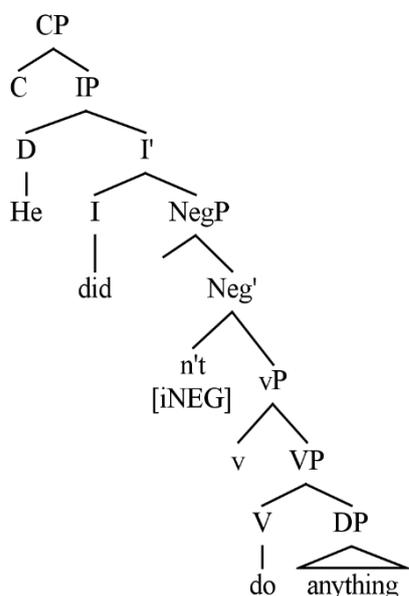
(Herburger 2001: 289, 300)

Account 1, we would need to analyse negative indefinites in pre-verbal position and in elliptical answers as marked for negation covertly within the DP, unlike negative indefinites in a non-elliptical post-verbal context where the covert operator would be in NegP. This inconsistency between the position of the covert negation in these three cases (pre-verbal, elliptical answers and post-verbal) would incidentally not arise in Account 2, in which we can assume DP-internal negation for all three. Pre-verbal negation and elliptical answers fall outside the variable context for the variationist analysis of *not*-negation, *no*-negation and negative concord pursued in this chapter, so these are not investigated empirically here. However, if Account 2 appears to be the best fit for the data on *not*-negation, *no*-negation and negative concord, the above observations about pre-verbal and elliptical answers having DP-internal negation would strengthen the support for that account even further.

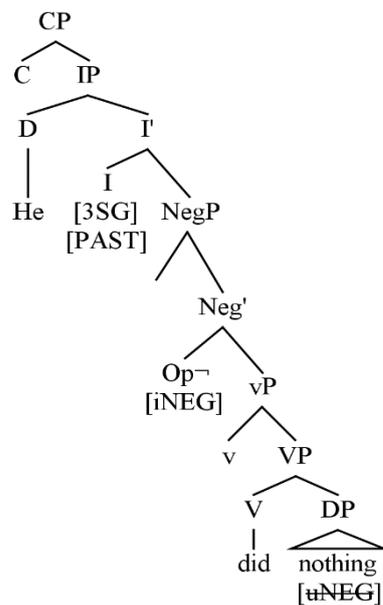
Under Account 1, the derivation of *not*-negation, *no*-negation and negative concord can be conceptualised according to Zeijlstra's (2004) proposal that there is a covert negative operator in NegP with the feature [iNEG] that other syntactically (but not semantically) negative elements with [uNEG] agree with to have their uninterpretable feature deleted. The three variants therefore have a negative marker *not/n't* or operator in NegP and an underlying indefinite NPI in the predicate. The indefinite NPI is a free variable requiring existential closure which, for constructions with *anything/nothing*, for example, is depicted as *(x)thing* (Zeijlstra 2004: 237; Biberauer & Roberts 2011). The realisation of the indefinite depends on whether it enters the Agree relation with the negative operator. If it does not, the default spell-out is *anything*, as in (25a). If it does enter the Agree relation, it is spelled out as *nothing*, in either *no*-negation (25b) or negative concord (25c).

(25) Account 1: The three variants²¹

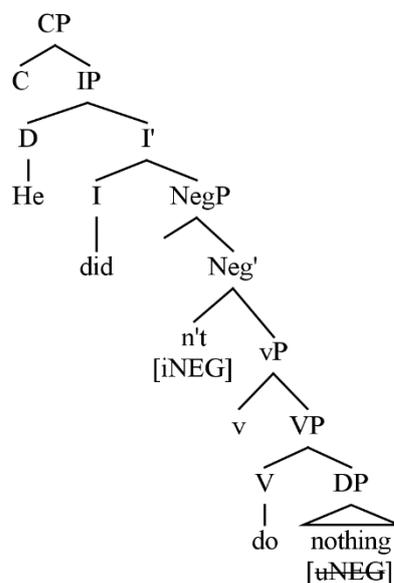
a. *Not*-negation



b. *No*-negation²²



c. Negative concord



It follows that the three variants are semantically equivalent, as supported by Labov (1972a: 813–4) and Blanchette (2013: 32), unless there is some interfering element/constraint. For example, subordinate clauses will host their own operator, which explains why negation with indefinites is clause-bound (Labov 1972a; Zeijlstra 2004: 264). Tokens of this kind are among those removed from the variable sample (see section 3.6.3). Based on Account 1 depicted in (25), I hypothesise the following:

Hypothesis based on Account 1: No-negation and negative concord will be dispreferred when there is material between the negative operator and the target form(s), i.e. the indefinite item(s).

Harvey (2013) suggests that BE and HAVE favour *no*-negation and other verbs favour *not*-negation because the latter do not move to I. He assumes that in cases of *no*-negation such as *you have nobody*, *have* moves to I, *no* is in SpecNegP and *nobody* remains low in the DP.

²¹ The ‘non-strict’ analysis is presented in (25) because it is the prototypical type in English (Labov 1972a: 786; Anderwald 2002: 108).

²² Although it is conceivable that in (25b) the operator could reside in SpecNegP as it does in cases of strict negative concord, it is represented here as the head of NegP for consistency with (25a) and (25c) where *n't* (the realisation of the operator) is the head of NegP, in line with standard assumptions (see Zeijlstra 2004: 175).

Sentences like *you don't see anybody* meanwhile feature *do*-support and the verb *see* remains in the VP between the negative marker and indefinite item. Harvey (2013) proposes that *no*-negation would be more difficult to derive for the latter example, because the lexical verb interferes between the negative marker and the DP.

These observations can be captured under Account 1 in the knowledge that constructions with intervening material or that involve greater syntactic distance between a controller and target promote lack of subject-verb agreement (Pietsch 2005: 129; Corbett 2006: 235–6; Buchstaller *et al.* 2013; Childs 2013). Since *no*-negation and negative concord are derived through Agree between a negative marker/operator and the lower indefinite(s), we expect this same distinction between main verbs which, under standard assumptions (Pollock 1989; Lasnik 2000), raise to I (BE and optionally HAVE)²³ and those that do not raise but remain in the VP (which I term 'lexical verbs'). In (26a), BE must raise to I²⁴ for tense and agreement and the lower copy in V is deleted at PF, thus not pronounced. Lexical verbs such as *see* remain in V, as shown in (26b), as their tensed forms are selected from the lexicon and their features are checked against those in I only at LF. Since *saw* constitutes additional material between the operator and the indefinite in the syntax in (26b) (material which is not present in (26a)), the Agree relation is expected to be more difficult to obtain in the latter context.²⁵ This leads to the prediction that both *no*-negation and negative concord will be dispreferred with lexical verbs compared to functional verbs (BE, HAVE). Similarly, one would expect that in constructions containing auxiliary verbs, where the main verb (regardless of type) remains in the VP, there would also be comparatively lower rates of *no*-negation and negative concord.

²³ The verb HAVE can sometimes behave like BE and raise (e.g. *I haven't any money*) and sometimes behaves like a lexical verb (e.g. *I don't have any money*) (Pollock 1989; Hughes *et al.* 2013: 22–3). HAVE can also be used in construction with GOT, forming an alternative stative possessive variant. Although an in-depth analysis of the syntactic status of HAVE vs. HAVE GOT is beyond the scope of this thesis, the two verb types will be analysed separately to examine whether they behave similarly with respect to *not*-negation, *no*-negation and negative concord.

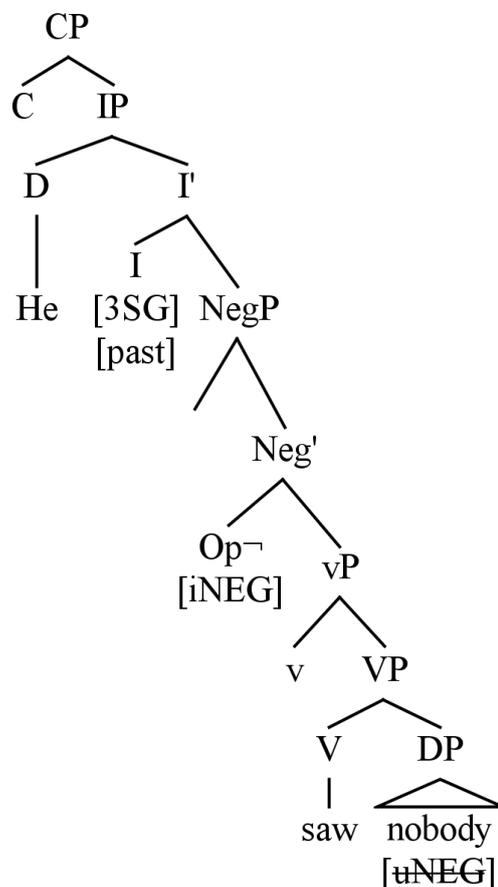
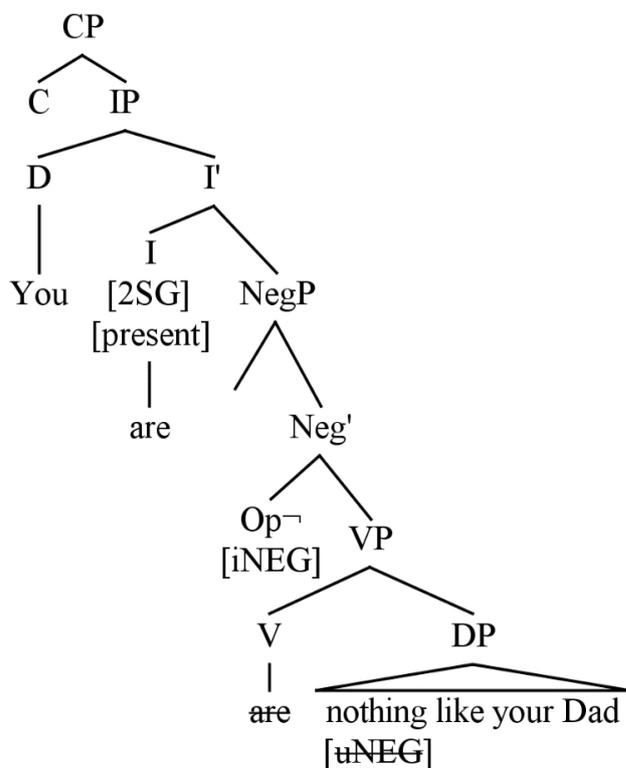
²⁴ Following the Head Movement Constraint (Travis 1984), BE in (26a) will have raised via the head of NegP. This does not affect the argument here since there is no lexical material between NegP and the indefinite.

²⁵ Under the v-V hypothesis (Chomsky 1995 following Hale & Keyser 1993), there is also an abstract transitivity light verb in (26b) between the negative operator and the indefinite, which is absent in (26a).

(26) Account 1: *No*-negation with BE and lexical verbs

a. BE, e.g. *You are nothing like your Dad*

b. Lexical, e.g. *He saw nobody*



In an alternative analysis, henceforth ‘Account 2’, *no*-negation differs in its derivation from the other two variants. Under this proposal, *no*-negation is the result of negative marking within the indefinite DP, followed by movement (Kayne 1998; Svenonius 2002).²⁶ Zeijlstra (2011) pursues a similar analysis which is consistent with the observation in Zeijlstra (2004: 38) that words like *nothing* in *he does nothing* are negative indefinites ‘that always introduce a negation and that bind a variable within the domain of negation’. However, this seems contrary to Zeijlstra’s (2004) suggestion that English is essentially a negative concord language. If *nothing* always introduces negation, how can we account for its use in negative

²⁶ Kayne (1998) proposes that this movement is overt in English (like Norwegian) and that the correct word order arises due to remnant movement of the VP, while Svenonius (2002) argues that the movement is covert in English. Account 2 which I propose here assumes covert movement, in line with English quantifier raising (May 1977) and following the general economy principle that LF movements are ‘less costly than overt operations’ (Chomsky 1995: 198).

concord constructions where it does not contribute negative meaning of its own? A possible explanation is that English *no*-forms are ambiguous (Herburger 2001) or have two distinct forms (Déprez 1997; Tubau 2016). Specifically, *no*-forms can be strong quantifiers that require raising, as in *no*-negation, or remain in the VP, as in *not*-negation and negative concord (Déprez 1997: 119). This can account for ambiguous sentences such as *John would be happy with no job* (credited to Rochemont 1978: 73) where under one reading there is no job with which John would be happy (sentential negation) and under the other reading John would be happy if he did not have a job (constituent negation). Herburger (2001) suggests that an ambiguity account of *no*-forms is consistent with a language undergoing change from expressing double negation to expressing negative concord. As previously noted, Zeijlstra (2004: 146) has suggested such a change is underway in English.

The observations about *no*-negation and VP-ellipsis from Weiß (2002) that were discussed earlier in relation to Account 1 can also be captured in Account 2, assuming that *no* is extracted out of the DP in (27a) which leaves a variable ‘(x)-one’ in the VP. Both the elided and full versions of (27b) are licensed in this context because (just as with Account 1) the negation is outside the VP and therefore not copied under VP-ellipsis (Weiß 2002: 137).²⁷

- (27) a. There was [no one around]
 b. There seldom is [anyone around]

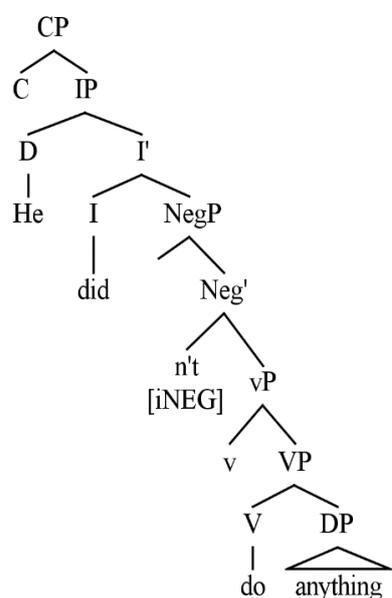
(Weiß 2002: 137)

To summarise, in Account 2 it is proposed that *not*-negation and negative concord are derived in the same way as in Account 1, but *no*-negation is the result of moving the negation out of the DP to receive sentential scope, as shown in (28b). The semantic equivalence between sets of sentences with different variants arises because they share the same truth conditions, rather than necessarily having the same structure.

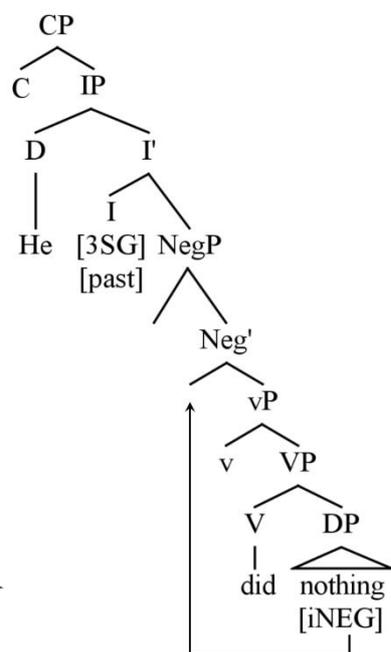
²⁷ It also follows under Account 2 that the only *no*-negation tokens with modals which are semantically equivalent to their *not*-negation counterparts (and thus included in my token sample for quantitative analysis) are those where the negation scopes over the modal (see Iatridou & Sichel 2011; Zeijlstra 2011).

(28) Account 2: The three variants

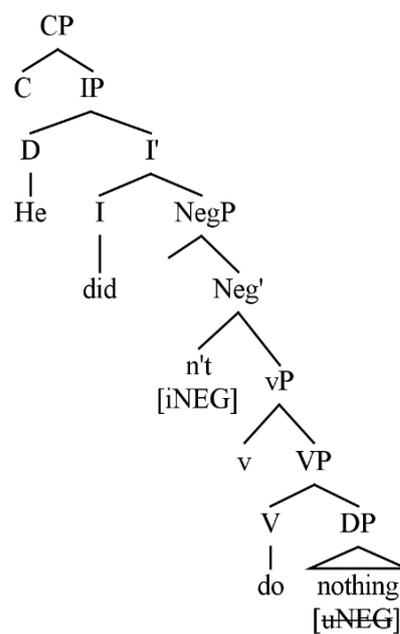
a. *Not*-negation



b. *No*-negation



c. Negative concord



The distinctive *no*-negation structure in (28b) compared to (25b) leads to different predictions for Account 2, as explained below.

Hypothesis based on Account 2: Only no-negation will be dispreferred when there is material between the negative operator and the indefinite item.

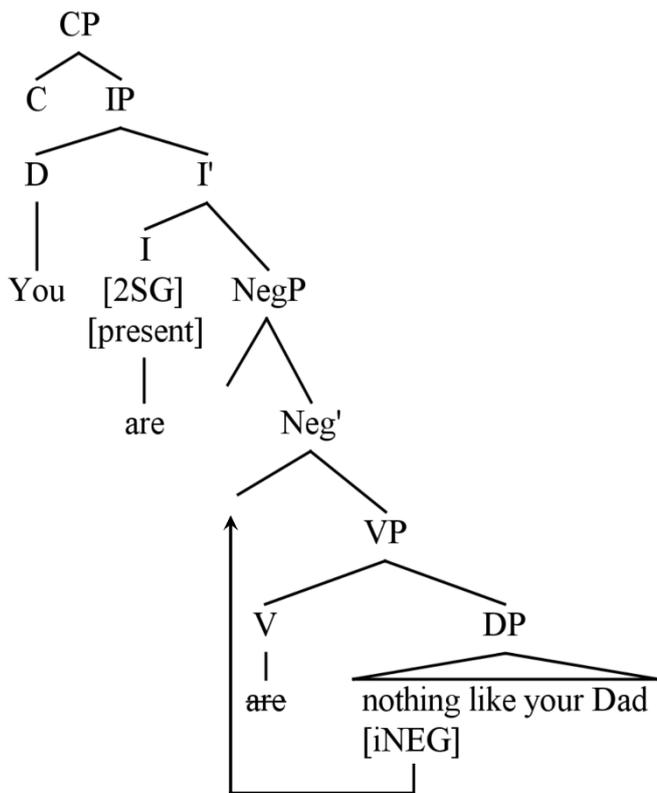
In (29a) below, there is no intervening material between the indefinite and the negative operator, because BE has raised to I. In (29b), there is a lexical verb *in situ* which adds to the cost of the movement required to derive *no*-negation. The licensing of *no*-negation here is reminiscent of Holmberg's Generalisation (Holmberg 1999), according to which object shift in Scandinavian languages is dependent on prior movement of the verb. Indeed, Svenonius (2002) describes the movement of negative DPs in Norwegian in these terms.

While the hypothesis based on Account 1 made the prediction that both *no*-negation and negative concord will be dispreferred with lexical verbs, since both involve the same Agree relation, Account 2 makes no such prediction for negative concord. This is because in Account 2 *no*-negation and negative concord are derived by different mechanisms, with the former having a negatively-marked indefinite which undergoes movement and the latter containing a *no*-form which agrees with the negative marker in NegP. Constructions with

auxiliary verbs are also expected to have lower rates of *no*-negation because the main verb similarly resides between the negative operator and the indefinite.

(29) Account 2: *No*-negation with BE and lexical verbs

a. BE, e.g. *You are nothing like your Dad*



b. Lexical, e.g. *He saw nobody*

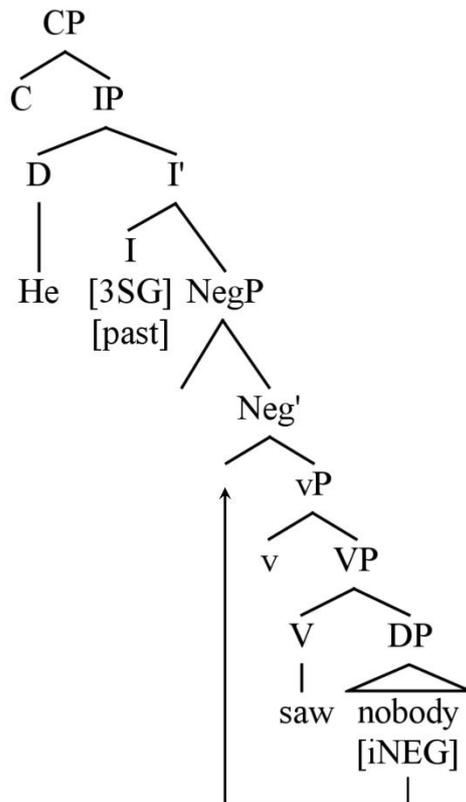


Table 3.1 below presents a summary of Account 1 and Account 2 and the predictions from each, which will be tested in the quantitative analysis of *not*-negation, *no*-negation and negative concord in section 3.8.

Account	<i>Not</i>-negation	<i>No</i>-negation	Negative concord	Hypothesis
Account 1	Overt negative marker (<i>n't/not</i>) in NegP with [iNEG]	Covert negative operator in NegP with [iNEG] agrees with a <i>no</i> -form that has [uNEG]	Overt negative marker in NegP with [iNEG] (<i>n't/not</i>) agrees with a <i>no</i> -form that has [uNEG]	<i>No</i> -negation and negative concord will be dispreferred when there is material between the negative operator and the indefinite item(s), because this will disrupt the Agree relation required for these two variants.
Account 2	Overt negative marker (<i>n't/not</i>) in NegP with [iNEG]	Overt negative marker (<i>no</i> -) with [iNEG] in the post-verbal DP moves to NegP for sentential scope	Overt negative marker in NegP with [iNEG] (<i>n't/not</i>) agrees with a <i>no</i> -form that has [uNEG]	<i>No</i> -negation will be dispreferred when there is material between the negative operator and the indefinite item, because the negation must move over intervening material to NegP.

Table 3.1: Summary of Account 1 and Account 2

3.4. Previous research on *not*-/*no*-negation

The most substantial empirical work on *not*- and *no*-negation is Tottie's (1991a, b) analysis of the frequency and constraints on this variation between speech and writing in the LLC and LOB corpora. As the distinction between writing and speech is not explored in my analysis,²⁸ the results cited from her work are from her variable spoken sample unless otherwise stated. The variable spoken sample consists of utterances from the spoken data that a native British English informant²⁹ deemed to have a viable, semantically-equivalent alternative variant, i.e. the construction could take both *not*- and *no*-negation with the same meaning. As it will be important when interpreting Tottie's results, at this point I note that her variable context

²⁸ Although the rate of *no*-negation (vs. *not*-negation) was higher in writing, the constraints on the variation were similar in both genres (Tottie 1991a, b).

²⁹ The informant was a university graduate who was asked to judge the acceptability of the alternative variant on a scale: acceptable, possibly acceptable, possibly unacceptable, unacceptable.

differs from mine in that she includes tokens with the indefinite article (*a/an*) as in (30) and NPs with no article as in (31), in addition to *any*-NPIs.

(30) I haven't a degree (Tottie 1991b: 211)

(31) I haven't space # I don't want (.) portraits (Tottie 1991b: 209)

Based on evidence that these forms do not undergo negative concord and that there are semantic differences between these forms and the *any*-NPIs, I exclude indefinite and zero articles from the variable context, as explained fully in section 3.6.

3.4.1. *Internal factors*

The strongest internal factor in the variation is the type of main verb/construction. Existential *there*+BE consistently has the highest rates of *no*-negation, ranging from 77.9% in the spoken component of ICE-GB (Varela Pérez 2014: 366) to 98% in Childs *et al.*'s (2015) materials from Northern England and Ontario, Canada. Copula BE occurs with *no*-negation to varying extents: 40.7% (Varela Pérez 2014: 366) to 60% (Tottie 1991b: 195) in Standard British English and 84% to 98% in vernacular varieties of Canadian and Northern British English (Childs *et al.* 2015). HAVE patterns similarly to BE in this regard (Tottie 1991b: 212; Varela Pérez 2014: 366; Childs *et al.* 2015). Lexical verbs (e.g. main verb DO, KNOW, SEE), on the other hand, occur with *no*-negation at rates of under 40% and are consistently the least likely verb type to take this variant.

Both Tottie (1991a, b) and Varela Pérez (2014) account for these verb type effects with appeal to frequency: 'the more frequent a given verb or construction is, the likelier it is to retain a more conservative form', i.e. *no*-negation (Tottie 1991b: 232). High-frequency constructions are said to be less susceptible to change because they are more likely to be stored, accessed and produced as a whole (Bybee & Hopper 2001). This is said to promote the retention of *no* in this environment over time, since it is older than *not*-negation (Tottie 1991b: 209). The propensity for *no*-negation to occur in existential constructions³⁰ and with

³⁰ With the existential constructions, there may also be a restriction on *not* and *any* 'closely following each other' in this environment (Poldauf 1964: 371) or 'a different option of contraction rules, yielding 's *no*- in place of *isn't any*' (Labov 1972a: 783). Although it is beyond the scope of the present study, contraction and negation appear to have interesting areas of overlap. For example, *not*-contraction is incompatible with *no*-negation, as the

BE and HAVE could therefore be due to these construction/verb types being higher frequency than the lexical verbs which are individually much lower in frequency and thus more susceptible to change, i.e. taking the newer variant, *not*-negation (Tottie 1991a, b; Varela Pérez 2014: 370). Tottie (1991b) uses Francis and Kučera's (1982) *Frequency Analysis of English Usage* to show that existentials, HAVE and BE are ranked as higher in frequency than lexical verbs, but notes that the work does not distinguish between main and auxiliary uses of verbs. Nevertheless, the frequency of *no*-negation does correlate with the frequency of the verbs in Tottie's sample; for example, there were more tokens of existential BE (N=38) than copula BE (N=20) with *not*-/*no*-negation and the former took *no*-negation more readily than the latter.

A second relevant factor conditioning the choice of variant is the 'complexity of the verb phrase'. Tottie (1991b: 224) distinguished between "simple" sentences, i.e. those that would have 'simple present or past tense nonnegated forms', and "complex" sentences, i.e. those with 'periphrastic structures'. *Do*-support sentences such as *he doesn't have any* were therefore categorised as simple, because the non-negative alternative is *he has some* (Tottie 1991b: 224). Results revealed that simple verbs most often occurred with *no*-negation while complex verb phrases tended not to (Tottie 1991b: 224), a trend matched in Varela Pérez's (2014: 374) analysis.

Tottie's (1991b) regression analysis confirmed that verb type and complexity had a significant impact on the choice of *not*- or *no*-negation. However, these results must be interpreted with caution since the model includes invariable as well as variable tokens (Tottie 1991b: 141). The results generally matched the distributions described above, with one exception. Copula BE strongly disfavoured *no*-negation in the regression even though it frequently occurred with *no*-negation (60%) in the variable sample. Tottie (1991b: 251) suggests that this is because BE often occurs outside the variable context, where *not* is obligatory, e.g. in sentences such as *it's not there*. Though feasible, this would lead one to predict that HAVE would pattern similarly, which was not the case. I argue that the unexpectedly low factor weight for BE is a consequence of the inclusion of invariable constructions in the model as well as indefinite and zero articles (in addition to *any*- NPIs) in the variable context. These forms have been shown

presence of both generates negative concord (e.g. *there isn't no water*). The precise nature of these effects is unclear, but this is an area that I intend to investigate in future research.

not to undergo negative incorporation (Labov 1972a: 806; Cheshire 1982: 66; Smith 2001: 131), as explained in section 3.6.

A final linguistic factor that may affect the choice of variant is the nature of the indefinite item that is negated. While Tottie (1991b: 257) found little to no difference in the rate of *no*-negation between noun phrases (e.g. *no food*) and pronouns (e.g. *nothing*), Varela Pérez (2014: 393) pointed to *-thing*, *-body* and *-one* indefinites as having greater tendency to take *no*-negation.

3.4.2. *Discourse status*

Discourse status also impacts upon the choice between *not*-negation and *no*-negation. Out of 38 tokens of negation with existentials in Tottie's (1991b: 236) variable spoken sample, only four were *not*-negation and all were 'a refutation of an idea that had been expressed in the immediately preceding context'. Only existentials exhibited these tendencies (not main verb BE or HAVE), though this may have been due to a limited sample size. Wallage (2014) found a similar effect in his research, which was motivated by studies finding that diachronic changes in negative marking in Romance languages were related to the discourse status of the information expressed (Schwenter 2006; Hansen & Visconti 2009; Hansen 2009). Wallage (2014) coded tokens of *not*- and *no*-negation from the conversational component of the BNC for one of five functions: denial of antecedent proposition; repetition of antecedent proposition; cancellation of an inference; assertion of an inference; discourse-new.³¹ The first four are 'discourse-old' as they refer to propositions that were already said or information that could be inferred from the preceding discourse. Where this was not the case and the proposition introduced new information, the tokens were coded as 'discourse-new'. The discourse status of the proposition has been identified as a consistently significant factor conditioning the choice of *not* and *no* in ME, EModE and the modern-day BNC, with discourse-new favouring and discourse-old disfavouring *no*-negation (Wallage 2012, 2014). The extent to which this effect holds in modern-day English dialects remains to be examined and is therefore a key line of investigation in my analysis.

³¹ This taxonomy is explained fully in section 3.7.5.

3.5. Previous research on negative concord

Although negative concord is ‘one of the most stigmatized features of non-Standard English’ (Beal & Corrigan 2005: 145), it is one of the most widespread and common features of non-standard varieties of English worldwide (Chambers 2004; Kortmann & Szmrecsanyi 2004). There are a handful of cross-dialectal comparative studies of the phenomenon, but many more investigations of the construction within a single dialect, perhaps because it is associated with marking social status rather than geographical region (Coupland 1988: 35; Anderwald 2005: 122; Beal & Corrigan 2005: 146) and because syntax in general ‘often appears less localized’ (Mazzon 2004: 119). As this chapter focuses on the use of *not*-negation, *no*-negation and negative concord across three Northern British varieties of English, I now contextualise this research with a summary of previous cross-dialectal observations relating to negative concord.

3.5.1. *Cross-dialectal differences in the frequency of negative concord*

Cross-dialectal studies have indicated that speakers in the South of the UK use negative concord to a greater extent than those in the North. Cheshire *et al.* (1993) conducted a questionnaire asking schools if their pupils use particular non-standard constructions and found that the highest reported use of negative concord was in the schools in the South of the UK, followed by those in the Midlands, then those in the North. To test this reported North-South trend, Anderwald (2002, 2005) analysed the frequency of negative concord (vs. *not*/*no*-negation, though the two variants were not distinguished) in the conversational speech component of the BNC and the *Freiburg English Dialect Corpus* (FRED) materials from the 1970s/1980s. The top four dialect areas with the highest relative frequencies of negative concord in the BNC were all in the South (from 21.4% to 33.1%) but the North East of England has a relatively high rate also (20.5%) in contrast to the rest of the North and Scotland. Anderwald (2005: 122) acknowledges that these patterns ‘might be a surface phenomenon that is simply caused by an uneven distribution of non-standard speakers in the BNC’, which highlights the difficulty of using the BNC for sociolinguistic research. Nevertheless, a significant regional distinction in the frequency of negative concord was identified as follows: North (9.7%), Midlands (8.7%), South (18.8%). The FRED data also reflects this regional trend, as confirmed by both Anderwald (2005) and Szmrecsanyi (2013: 152). The direction of the regional trend seems surprising given that the South East is the area from which Standard English originated, though Anderwald (2005: 133) suggests that this

may be due to the North and Midlands historically having greater contact with speakers of Old Norse, a language without negative concord.

3.5.2. *Internal factors*

There has been surprisingly little research into the linguistic factors which affect the use of negative concord, but studies which have investigated such constraints have examined whether the type of indefinite item, i.e. full DP indefinites (e.g. *any* money) vs. pronominal indefinites (e.g. *anything*), has a role to play. While some studies indicate that pronominal indefinites occur with higher frequencies of negative concord than full DP indefinites (Howe 1995; Smith 2001), others find no distinction between the two (Cheshire 1982). These apparently contradictory findings are, as Smith (2001) notes, likely due to differences in the delimitation of the variable context (with Howe (1995) including tokens of *a/an* with singular count nouns, unlike the other two studies) and different sample sizes. Smith (2001: 120) therefore calls for further investigation into the internal linguistic constraints on negative concord, which I pursue in this chapter.

3.5.3. *Social factors*

Negative concord is stigmatised in part because it is ‘the most striking difference’ between non-standard and standard varieties of English (Mazzon 2004: 118) and is associated with working class speakers (Pullum 1999: 49). Smith (2001) identified an age-grading effect in the use of negative concord in Buckie, Scotland, where the youngest and oldest speakers used negative concord more often than the middle-aged group. The middle-aged group have greater involvement in the linguistic marketplace where there is increased ‘importance of the legitimized language in the socioeconomic life of the speaker’ (Sankoff & Laberge 1978: 241), so stigmatised variants are avoided. Negative concord is also often associated with male rather than female speakers (Cheshire 1982: 65; Smith 2001: 118).

3.6. **The variable context and data extraction**

The semantic equivalence of variants is central to the Labovian conception of the linguistic variable, as discussed in Chapter 1. As already noted, previous studies of *not*-negation, *no*-negation and negative concord have defined the variable and the variable context in different

ways, impacting upon the results of their analyses. This section describes in detail how the variable and its context were conceptualised in this study.

3.6.1. Definition of the variable

As described in section 3.1, *not-/no-*negation and negative concord require an underlying NPI of the form *any-* which allows all three variants. In examples of *not-*negation and negative concord, the negative marker can be isolate *not* (also *no*’, a possible alternative in Glasgow) or the contracted *n’t*. The indefinites must be in the predicate, i.e. post-verbal. Table 3.2 gives the canonical forms, but non-standard forms are also included: *owt* (“anything”) and *nowt* (“nothing”) as found in Tyneside and Salford; the alternative auxiliaries *cannit* (“can’t”) and *divn’t* (“don’t”) in Tyneside; and various forms with *-nae* (“n’t”) in Glasgow such as *dinnae*, *couldnae* and *wasnae*.

Not-negation	No-negation	Negative concord
<i>not ... any</i>	<i>no, none</i>	<i>not ... no/none</i>
<i>not ... anybody</i>	<i>nobody</i>	<i>not ... nobody</i>
<i>not ... anyone</i>	<i>noone</i>	<i>not ... noone</i>
<i>not ... anything</i>	<i>nothing</i>	<i>not ... nothing</i>
<i>not ... anywhere</i>	<i>nowhere</i>	<i>not ... nowhere</i>

Table 3.2: Forms within the variable context

As noted in section 3.1, only the *any-/no(-)* forms are part of my variable context. The items *not...ever* and *never* were not included because in cases where either form is possible, the *never* variant was preferred at rates of 97-100% in each dataset. To include these forms would skew the results (Tottie 1991b: 109; Varela Pérez 2014: 337).

In some previous studies of *not-* and *no-*negation, *a/an/any/∅* are all listed as equivalent to *no* and are included as part of the variable context (Tottie 1991a, b; Varela Pérez 2014). For example, sentences like (32)-(33) were included in Tottie’s sample.

- (32) a. well she said # that doesn’t make sense # that’s the cheapest of the lot
 b. well she said # that makes no sense # that’s the cheapest of the lot
- (33) a. because I haven’t a degree
 b. because I have no degree

(Tottie 1991b: 178, 211)

The inclusion of such sentences is consistent with one of the earliest theoretical accounts of the variation which refers to the fact that ‘*no* (or a compound with *no-*) appears in the place of *any* (*any-*, or the indefinite article *a[n]*)’ (Poldauf 1964: 370). However, *no* is presented as equivalent only to *not any* in many other works (Quirk *et al.* 1985: 782; Tieken-Boon van Ostade 1997: 188; Schneider 2000: 219; Childs *et al.* 2015). I argue that examples with the zero or indefinite article like (32)-(33) should be excluded from the analysis of *not*-negation, *no*-negation and negative concord, based on three main lines of evidence.

First of all, *a/an/∅* have a different linguistic status to the *any*- items. While the *any*-indefinites are NPIs, *a/an/∅* are not. *Any*-forms uncontroversially denote ‘a kind of extreme non-specificity’ whereas the indefinite article can have a specific reading (Lyons 1999: 37; see also Szekely 2015: 135). Furthermore, *any*- items have also been considered emphatic compared to the articles (Tottie 1991b: 305; Jackson 1995: 185), or ‘less exception-tolerant’ (Chierchia 2013: 27).

Secondly, there are sentences with *a/an* where *any* is not a semantically equivalent alternative. For example, Tottie’s informant judged (34b), with the indefinite article *a*, as acceptable and semantically equivalent to the original token in the data (34a). The alternative with *any*, in (34c), was deemed unacceptable and not semantically equivalent to (34a). However, the examples in (34) are similar to those in (35) below, which Tottie (1991b: 130) excluded on the grounds that (35b) constitutes denial of ‘an essential semantic feature which is part of the semantic specification of that noun’. In (35a) there is a denial that Bill is a doctor, whereas (35b) is ‘an emotionally colored statement to the effect that although Bill may have the formal status of a doctor, etc., he lacks the essential qualities required to make him a good representative of his profession’ (Tottie 1991b: 130). This particular interpretation can be extended to the *moralist* examples in (34). Example (34a) indicates that the subject does not have the necessary qualities that would make him a moralist, whereas (34b) is similar to (35a): a simple denial. The alternatives therefore lack semantic equivalence.

- (34) a. *He is no moralist, then; he doesn’t use art as a means of revenge.*
b. *He is not/isn’t a moralist, then; he doesn’t use art as a means of revenge.*
c. **He is not/isn’t any moralist, then; he doesn’t use art as a means of revenge.*

(Tottie 1991b: 205)

- (35) a. Bill is not a doctor.
 b. Bill is no doctor.

(Tottie 1991b: 130)

Thirdly, as noted earlier, there is a general consensus that *not a/an* does not undergo negative concord (Labov 1972a: 806; Smith 2001: 131), even in varieties of English where negative concord occurs at rates of 80-100%. This is shown in (36) and (37) where *a* is still intact.

- (36) I ain't never lost a fight. I ain't never lost a fight. [Robert, South Carolina (AAVE)]

(Labov 1972a: 806)

- (37) It ain't got a Big Wheel, no Umbrellas [Debbie, Reading]

(Cheshire 1982: 66)

The fact that negative concord can occur with singular count nouns might suggest that there is an underlying *a/an* rather than *any* (Howe 1995, 2005: 190). However, such examples are rare. Smith (2001) found only three instances of *no* from 136 tokens of negation with a singular count noun (shown in (38)) and thus excluded them from her analysis of negative concord.

- (38) a. I'm nae getting nae new apron.
 b. They're nae gan in nae cattle boat.
 c. I never got nae letter in about that camera.

(Smith 2001: 130)

Labov (1972a: 810–1) argues that in such examples the indefinite article was first replaced by *any*, which then undergoes negative concord and gives the utterance an emphatic quality. The *any*-insertion argument would also account for the rare occurrence of *no* with proper nouns, exemplified in (39). *No* is used with a singular proper noun that depicts a specific person and therefore would be paraphrased without *no* or an article, i.e. *it don't take Sherlock Holmes to see it's a little different around here*.

- (39) And it don't take no Sherlock Holmes
 To see it's a little different around here

(Arctic Monkeys, *A Certain Romance*, 2:07)

In summary, negative concord is rare with NPs that have an indefinite or zero article. When negative concord does occur in such a context, the article is first replaced by *any* (Labov 1972a). The articles are also linguistically distinct from *any*- forms in that they are not NPIs and do not denote complete non-specificity. I therefore excluded all tokens where the negator had scope over a DP with no determiner or an indefinite article.

3.6.2. Data extraction

All instances of *not*-negation, *no*-negation and negative concord as defined above were extracted from the Glasgow, Tyneside and Salford data using *AntConc* (Anthony 2011). Table 3.3 lists the search terms that were used to extract all relevant tokens, including potential orthographic variants. Using the *any*- forms as target forms for *not*-negation ensured that all types of preceding verb were captured. Since tokens of negative concord consist of a surface instantiation of both *not/n't* and *no*, instances of negative concord were captured using these same terms below. I subsequently listened to each of the audio files to check the accuracy of the transcription of the tokens and ensure that no target forms had been missed from the automatic search. Although the tokens could have been extracted manually this way, the use of concordance software reduces the potential for error.

<i>Not</i>-negation	<i>No</i>-negation	
<i>any</i>	<i>no</i>	<i>nae, nee</i>
	<i>none</i>	
<i>anybody</i>	<i>nobody</i>	<i>naebody, neebody</i>
<i>anyone</i>	<i>noone</i>	<i>no one</i> <i>naeone, nae one</i> <i>neeone, nee one</i>
<i>anything</i>	<i>nothing</i>	<i>nowt</i>
<i>anywhere</i>	<i>nowhere</i>	<i>naewhere, neewhere</i>

Table 3.3: List of lexemes used to extract all tokens of *not*-negation, *no*-negation and negative concord

The extracted tokens were scrutinised and sorted to remove those outside the immediate variable context outlined in section 3.6. The *any*- forms in Table 3.3 must be in a negative environment, so examples which had no negative marker were excluded outright, as were instances of lexical *no*, e.g. as a non-affirmative response. *Not*-negation is also only a viable alternative to *no*-negation post-verbally (Labov 1972a; Tottie 1988, 1991a, b; Varela Pérez 2014: 338), so clause-initial tokens as in (40) were excluded.

(40) **Nothing**'s free anymore. [Catherine, Salford]

Further tokens were excluded due to the lack of equivalence between *not*- and *no*-negation variants, structural issues or because particular constructions categorically occurred with only one of the variants, as described in the following section.

3.6.3. *Exclusions*

It was vital to exclude from the sample those contexts where there is a discrepancy between the three variants in terms of semantic equivalence. As already noted, Tottie (1991b) achieved this by presenting her tokens to a native speaker of British English who judged the acceptability of the alternative variant (e.g. if the actual sentence in the data had *not*-negation, the sentence was reconstructed with *no*-negation) and the equivalence in meaning between the actual and reconstructed sentence. As a native speaker of British English, I judged the sentences in my data in the same way (but considered a third variant, negative concord, as well). If I was uncertain whether to include a particular sentence, I asked other native speakers of English for their judgements.³² If consensus was reached on the acceptability of the variants and their semantic equivalence, the sentence was included in the sample. Any contexts that yielded different judgements, or converging judgements of unacceptability/non-equivalence in meaning, were not included in the sample.

The first cases excluded were those where *not* and the indefinite item are in separate clauses. The present analysis includes only tokens where *not/n't* and the indefinites are in the same clause, as it is within this context that they are subject to the same syntactic constraints, i.e. they are clause-bound (Labov 1972a: 782; Zeijlstra 2004: 264). As such, examples of negative raising³³ as in (41a), 'whereby the negative element, which logically belongs to the subclause, has been "raised" into the matrix clause' (Fischer 1998: 55), were excluded from the variable context, as there is ambiguity between *not*- and *no*- forms:

³² These sentences were presented informally to native speakers of English: two linguists at Newcastle University (who speak Northern Irish English and American English), one postgraduate student at Newcastle University (Edinburgh English) and two family members (Tyneside English).

³³ Negative raising in English is associated with particular verbs that express modality, e.g. attitudes or likelihood (Horn 1978: 187; Fischer 1998: 86).

- (41) a. I don't think I would change **anything** [JS/221, Tyneside]
 b. I think I wouldn't change **anything**
 c. I think I would change **nothing**
 d. I don't think I would change **nothing**

Although Tottie (1991b: 108) suggests that 'only sentences where NEG is in the top of a clause of a NEG-raising construction had to be removed', I excluded all examples of the type in (41). Traditionally, (41a) is interpreted as having a weak reading where it is not *think* that is negated, but the following complement, i.e. 'I think not-*p*' (Simon-Vandenberg 1998: 313–15). However, it is impossible to know whether (41a) corresponds to (41b) or (41c) for the speaker. Secondly, the construction *I don't think* in particular is a fixed, 'routinised discourse formula' (Pichler 2013: 167; see also Bybee & Scheibman 1999: 582). To include such constructions in the final sample would erroneously inflate the percentage of *not*-negation in the data.

Although general extenders containing negative items (e.g. *or nothing*) as in (42) may appear to be part of a concord relationship when there is a negative marker on the verb, these 'are not to be considered within the same clause' (Labov 1972a: 806) and, as such, were excluded from the variable context.

- (42) they hadnae even washed the floor **or nothing** [NKOF1, Glasgow]

Tokens with adjectival complements were also removed from the final sample because in this environment the *not*- and *no*- alternatives have different readings. For example, (43b) expresses a higher degree of intensity on the scale of "good" than (43a).

- (43) a. It doesn't look good for a Christian woman [SG/121, Tyneside]
 b. It looks **no** good for a Christian woman

Instances of *not*- and *no*-negation within adverbial phrases were also excluded from the variable context. In (44), a single instance of *no*-negation in the adverbial is not permitted (**I can go to matches no more though*). As for (45), although *with nae* can alternate with *without any*, this is not a true case of *not*-negation because the main verb remains unmarked. In (46), the alternative with *not*-negation requires movement of the entire adverbial phrase (i.e. *so then they're not your friend any longer*).

- (44) I **can't** go to matches **anymore** though [LR/195, Tyneside]
 (45) I had these white socks **with nae** shoes on [NKYF4, Glasgow]
 (46) So then they're **no longer** your friend. [Joshua, Salford]

The position of adverbs within or outside the scope of negation also has consequences for the meaning (Alexiadou 1997: 14; Waters 2013). Tottie (1991b: 115) notes that in constructing alternative variants of the sentences in her data as a test of acceptability and semantic equivalence, she decided to 'move adverbs as little as possible'. However, there is no explanation as to how much movement was acceptable. I therefore decided to exclude all tokens where an adverb or discourse *like* occurred before or after a negated verb as these can create subtle differences in meaning, as (47) and (48) demonstrate. When *really* and *actually* are in the scope of the negative marker, as in (47a) and (48a), they are de-emphasizers that create 'a hedged statement' (Paradis 2003: 202). This is in contrast to (47b) and (48b), where the adverbs are higher than the negative marker. In this position, they are emphasizees which have 'the function of emphasizing the subjective judgement of the importance of the situation involved in the proposition in question' (Paradis 2003: 194). *No*-negation restricts the placement of adverbs, as (48c) shows, while *not*-negation is prohibited with particular adverbs, as (49) demonstrates.

- (47) a. I haven't really **anything** much to do myself
 b. I've really **nothing** much to do myself [4F1, Glasgow]
 (48) a. they didn't actually nick **anything** [B/145, Tyneside]
 b. they actually nicked **nothing**
 c. *they nicked actually **nothing**
 (49) a. There was absolutely **nothing** I could do [Emily, Salford]
 *There wasn't absolutely **anything** I could do
 b. you pay virtually **nothing** [B/145, Tyneside]
 *you don't pay virtually **anything**

There were some examples of *not*- and *no*-negation in fixed phrases that similarly did not allow the alternative variant. Sentences such as (50) were therefore not included in the sample.

- (50) well it's better than **nowt** [Mary, Salford]

Utterances with an ellipted subject, as in (51), were also removed due to their lack of variability.

- (51) a. **Nae** point in me going up unless it was a Friday [00-G1-m03, Glasgow]
b. This all-boys-school malarkey (..) **no** good to me. [RB/16, Tyneside]

In summary, tokens with the following characteristics were excluded from the analysis due to lack of semantic equivalence between the variants: negation across clauses; adjectival complements; negation within an adverb; adverbs outside or within the scope of negation. The final sample size for this variable for each of the regional datasets is as follows: Glasgow (N=154); Tyneside (N=200); Salford (N=143).

3.7. Coding

The tokens in the variable context were coded for linguistic factors which have been observed to impact upon the choice of variant in previous research as discussed in sections 3.4 and 3.5, as well as external factors that may provide insight into ongoing change from *not*-negation to *no*-negation, as outlined in this section.

3.7.1. *Dependent variable*

The tokens were coded as *not*-negation, *no*-negation or negative concord (see section 3.6).

3.7.2. *Verb type*

As discussed in section 3.4.1, the type of main verb is a known factor impacting upon the choice of variant (Tottie 1991a, b; Varela Pérez 2014). By including this factor in my analysis, I can investigate this trend in Glasgow, Tyneside and Salford English and test the hypotheses related to Account 1 and Account 2 of *not*-negation, *no*-negation and negative concord as set out in section 3.3.2. As existentials consist of existential *there* plus BE, they are a construction type rather than a ‘verb type’, but they are included in the ‘verb type’ factor group so as to distinguish them from other types of BE that were shown to behave differently (Tottie 1991a, b). HAVE and HAVE GOT were also distinguished in the coding because the latter may behave differently in the syntax, e.g. in HAVE GOT, HAVE may behave like an auxiliary and GOT like a main verb (Berdan 1980: 388). Although DO is a lexical verb, it was coded

separately from the others in case its additional function as an auxiliary impacts upon its distribution. The tokens were therefore categorised into the following types:

(52) a. Existentials

There was nothing to do [MS/321, Tyneside]

b. BE

It's naewhere near Easterhouse [4M5, Glasgow]

c. HAVE

they didn't **have** any positions available [SM/135, Tyneside]

d. HAVE GOT

He's **got** no money [Amanda, Salford]

e. DO

I'm not **doing** anything wrong [00-G2-m03, Glasgow]

f. Lexical verbs

Well that doesn't **mean** nowt, man [PM/85, Tyneside]

3.7.3. *Complexity of the verb structure*

The presence of additional auxiliaries affects the choice of negation variant (Tottie 1991b: 224; Varela Pérez 2014: 374) and provides another means of testing the hypotheses derived from Account 1 and Account 2. Existentials and HAVE GOT were again coded separately, for the reasons described above. Simple verb constructions are those containing only a main verb or a main verb with *do*-support. Constructions with non-modal auxiliary verbs or modal auxiliary verbs feature one such verb between the subject and the main verb. Within the modals group are five tokens of 'semi-modals', which are semi-grammaticalised constructions that behave similarly to modal verbs (Leech *et al.* 2009: 92). These tokens are periphrastic constructions with HAVE GOT TO and BE GOING TO.

(53) a. Existentials

There's no respect now [NKOM1, Glasgow]

b. HAVE GOT

But really, Salford **hasn't got** any city centre, has it? [Paul, Salford]

c. Simple verbs

They don't **do** anything in return [NKOF4, Glasgow]

d. With non-modal auxiliary verb

And then after that I've **had** no trouble [P/416, Tyneside]

e. With modal or semi-modal auxiliary verb

I **won't have** any credit [Emily, Salford]

3.7.4. Indefinite item

The type of indefinite item that is negated has also been found to affect the relative frequency of *not*-negation, *no*-negation and negative concord (Tottie 1991b; Smith 2001). The pronouns *owt* and *nowt* (54e) from the Tyneside and Salford datasets were coded separately from *anything* and *nothing* to examine whether these non-standard forms exhibit different behaviour.

(54) a. *anything, nothing*

You don't see **anything** like that [Paul, Salford]

b. *anybody, nobody*

To be honest there's **nobody** around [MM/123, Tyneside]

c. *anyone, no one*

there was **neone** there like luckily [PM/85, Tyneside]

d. *any, no, none*

I asked for that, eh programme, but they've no' got **any** left [4F6, Glasgow]

e. *owt, nowt*

I don't really care, it's got **nowt** to do with me [GQ/21, Tyneside]

f. *anywhere, nowhere*

You won't get **anywhere** [Abby, Salford]

3.7.5. *Discourse-old and discourse-new*

Previous studies have identified the importance of discourse status of the proposition expressed, i.e. whether the proposition is old or new to the discourse, in determining the choice of *not*-negation and *no*-negation (Tottie 1991b; Wallage 2012, 2014). The tokens were categorised in line with the coding schema that Wallage (2012) applies to English, developed from Schwenter (2006), Hansen (2009) and Hansen and Visconti (2009), which categorises tokens according to their discourse function: whether they were a denial of an antecedent proposition, repetition of an antecedent proposition, cancellation of an inference, assertion of an inference, or discourse-new.

Discourse function	Discourse-old or discourse-new	Explicit or implicit original proposition	Cancellation or reinforcement
Denial of an antecedent proposition	Discourse-old	Explicit	Cancellation
Repetition of an antecedent proposition	Discourse-old	Explicit	Reinforcement
Cancellation of an inference	Discourse-old	Implicit	Cancellation
Assertion of an inference	Discourse-old	Implicit	Reinforcement
Discourse-new information	Discourse-new	N/A	N/A

Table 3.4: Coding schema for discourse-old/-new (Wallage 2012)

These five types of discourse function are explained in the remainder of this section.

Denial of an antecedent proposition

Tokens categorised as denials are those where ‘the negative proposition denies an earlier proposition which was explicitly stated in the discourse’ (Wallage 2012: 5), as illustrated in the following examples from my data.³⁴ Example (55) illustrates how the explicitly stated proposition that is subsequently denied need not be spoken by a different speaker. NKYM2 states that ‘[e]veryone says he [Alec Cleland] played pure crap for Rangers’. If a footballer ‘played pure crap’ then this entails that he “did something wrong”, but this is explicitly denied

³⁴ The transcription conventions used in these and other extracts are given on page xiii.

by NKYM2's statement that he 'didnae do nothing wrong'. In (56), on the other hand, Rebecca's proposition is denied by another speaker. Rebecca asserts her belief that she will be paid at the end of the month, but Amanda denies this using negative concord: 'You won't get nothing this month'. Note that the tag question *won't I* is not seeking verification. Rebecca's utterance 'I'm gonna get emergency-taxed' expresses her conviction that she will be paid. This is further reinforced by her question 'Will I not?' in response to Amanda's denial, which expresses surprise that she was incorrect.

(55) NKYM1: Brown has done not bad.

NKYM2: Oh aye.

NKYM1: Alec Cleland.

NKYM2: Don't know. *Everyone says he played pure crap for Rangers. Didnae do anything wrong.*

[Glasgow]

(56) Rebecca: Why do <you> get paid on a Tuesday? That's an odd day that, you know.

Amanda: <unclear> No you get paid the 25th.

Rebecca: Oh, so it don't matter what day it falls on, you just get paid on the 25th?

Amanda: So it doesn't- yeah, it- it-, unless if you get paid on, if it's a Sunday you get paid on the Friday. You just don't get paid on a Sunday.

Rebecca: Yeah (.) right, right. What about a Saturday?

Amanda: No, I- I think you get paid on a working day.

Rebecca: Right.

Amanda: Like coming up to Christmas--

Rebecca: *Cos I'll get paid won't I*, but (.) I'm gonna get emergency-taxed.

Amanda: **You won't get nothing this month.**

Rebecca: Will I not?

Amanda: I don't think so. When did you start?

[Salford]

Repetition of an antecedent proposition

In cases where negation is used in a repetition of an antecedent proposition, the original proposition is again explicit in the prior discourse (Wallage 2012: 5). In (57), any reference to

he/his refers to the other informant in the conversation, i.e. P/416's utterance 'he'd be sitting there' means "B/145 would be sitting there". Bold italics highlight utterances that express a proposition *before* the repetition. The repetition features *not*-negation, *no*-negation or negative concord and is presented in bold without italics. In (57), B/145's statement 'he had nee tea' is a repetition of a discourse-old proposition, expressed earlier by 'my mother would feed him my tea' and 'I used to sit, eat his tea'. These statements take different linguistic forms, but the same proposition is expressed. In (58), 4F6 repeats four times the proposition that she is going to travel to Newcastle alone. The third instance is the token which falls into the variable context, as an example of *not*-negation.

(57) P/416: He'd go to my house, knock on my door, say to my mother, "I forgot my keys" and ***my mother would feed him my tea***. That's what he used to do <unclear> he'd be sitting there (*claps twice*) it's here.

B/145: <unclear> @

P/416: Thanks

B/145: ***I used to sit, eat his tea*** and play on his Megadrive

[...]

((*participants speak about Megadrive and SNES games consoles*))

B/145: so I used to sit there playing on his Megadrive while he was at football practice. He'd come in and **he had nee tea** <@> and I'm sitting playing a game </@>.

[Tyneside]

(58) 4F6: And I'm thinking I'm going down to Newcastle. Did I tell you?

[...]

((*participants discuss the trip*))

4F6: ***I'm gonnae go down there on my tod***. I don't know anybody.

4F5: No. Don't- don't dae it!

4F6: I know, I know. I'll no' dae it. I- I've just got to get it out my system.

4F5: Aye.

4F6: I've got to go and that's it. *I'm going on my own*. That's the reason I'm doing it.

4F5: Aye.

4F6: **I'm not taking anybody with me.**

4F5: Aye.

4F6: *Just on my tod*, see how I get on.

[Glasgow]

Repetitions were coded as such regardless of the time elapsed between the first expression of the proposition and the repetition. Having listened to the recordings in my sample multiple times during the data preparation, extraction, exclusion and coding process, it was possible to establish whether a given proposition had been stated in the discourse earlier and thus if it was discourse-old, i.e. familiar to the interviewees. Tokens were coded this way only if both the original and repeated propositions had the same propositional content and referential properties. For instance, in one particular interview between two Glaswegian teenagers, the speakers occasionally state that they have 'nothing else' to say. The interview was in fact fairly relaxed and the speakers were comfortable talking about personal topics, suggesting that they were not greatly inhibited by the Observer's Paradox (Labov 1972d); they made such statements simply when there was a lull in the conversation:

- (59) a. NKYF2: So we've only been in here for five minutes already and we've nothing else to talk about [06:30]
b. NKYF1: I don't have nothing else to say now [16:45]
c. NKYF2: [...] since we've got nothing else to talk about but boys [22:10]
d. NKYF1: I've got nothing else to say [37:10]

[Glasgow]

Each of these instances was coded as discourse-new, rather than the latter three being classified as repetitions of an earlier explicit proposition. This is a special case where the metalinguistic nature of these utterances renders them ephemeral and discourse-new each time, because they are comments on how the speaker is feeling at that specific moment.

Cancellation of an inference

In cancellations of inferences, ‘the negative proposition cancels an implicature arising out of the preceding discourse’ (Wallage 2012: 5). In contrast to denials, cancellations of inferences involve the cancellation of implicit information rather than something explicitly stated, as shown in (60) and (61). In (60), 4F3’s use of the definite article *the* in *the Christmas lunch* denotes that there is a specific referent (*Christmas lunch*) which is assumed to be familiar to 4F4. 4F4’s response ‘I’ve no’ heard nothing about it yet’ cancels that inference. Similarly, in (61), the interviewees’ conversation about trick-or-treating with their relatives leads the fieldworker to assume that they took an active part in the activity. JS/221 cancels this inference by stating ‘we didn’t have any’ and explains that they ‘just took them round’.

(60) 4F3: ***So, you coming to the Christmas lunch?***

4F4: **I’ve no’ heard nothing about it yet.**

4F3: Well, it’s on the tenth of December.

[Glasgow]

(61) Fieldworker: What did you do at Halloween, anything interesting?

LR/195: @ Took my cousins trick-or-treating.

JS/221: With me, and my niece.

[...]

((*the speakers discuss trick-or-treating*))

Fieldworker: ***Did you get much from your trick-or-treating?***

JS/221: Like, **we didn’t have any**, we just shared it out. @

Fieldworker: Yeah.

LR/195: No we didn’t have any cause like, we didn’t actually go, we just took them round and like, I just got dressed up for the craic, so um yeah, so like, they shared it out, but we did get quite a bit.

[Tyneside]

Assertion of an inference

The final discourse-old function is the assertion of an inference, in which ‘the negative proposition explicitly states a proposition which is implied by the preceding discourse’ (Wallage 2012: 5), as illustrated in the following excerpts. In (62), Mary mentions that Gail enjoyed a drink called ‘Mickey Mouse something’ on holiday, which was made for children. Gail confirms that it was called ‘Mickey Mouse’ because ‘it got no alcohol in it’. The fact that the drink was called ‘Mickey Mouse’ and it is ‘the kids’ one’ strongly implies that it has no alcohol content, so the instance of *no*-negation, ‘it got no alcohol in it’, is a statement of a previous inference. Example (63) further illustrates the statement of an inference function. The friends are talking about whether Newcastle has changed over time, to which PM/85 responds ‘it’s all listed buildings’. It is common knowledge that listed buildings have restrictions on potential amendments or demolition, so the subsequent statement ‘they can’t change anything’ is an assertion of an inference.

(62) Mary: What was it when you were away and she-, she was on cocktails?

Interviewer: I dunno.

Mary: What was it? *Mickey Mouse something @ All the kids’ one!*

Gail: Mickey Mouse, yeah. **Cos it got no alcohol in it. @**

[Salford]

(63) PM/85: The toon³⁵ hasn’t changed much like.

SM/84: Well aye it has.

PM/85: Not since like the (.) not the--

Fieldworker: Not the layout but--

SM/84: The Centre for Life and all that.

PM/85: I’m saying like the main toon (.) *it’s all listed buildings you know, they can’t change anything.*

[Tyneside]

³⁵ ‘Toon’ here means ‘town’.

Tokens in the variable context were coded as discourse-new if the proposition expressed ‘is not identified by an antecedent proposition in the earlier discourse and is not inferentially linked to the preceding discourse’ (Wallage 2012: 5). In (64), the response ‘there’s no discipline’ to the fieldworker’s question about teenagers’ speech is not linked to any earlier proposition in the discourse, either explicitly said or implied. There is no prior indication that DK/131 believes that ‘there’s no discipline’. In (65), although we can anticipate BB/929’s negative response to a Debenhams store being built in Newcastle because she says that she ‘hates’ people who build those stores and that she does not think Newcastle will be better when the construction is finished, her statement ‘I can’t afford anything from there’ cannot be elicited from the preceding discourse. As there is no way to derive this proposition from the preceding talk, this is discourse-new information.

(64) Fieldworker: What do you think about the way teenagers today sound?

JR/456: Teenagers today?

Fieldworker: When they talk English, what do you think about the way they sound?

DK/131: **There’s no discipline.**

[Tyneside]

(65) Fieldworker: They’re doing a Debenhams where The Gate is.

BB/929: Ah I hate people who (.) do Debenhams.

MP/158: @

Fieldworker: Do you reckon like, do you reckon it’s gonna be better when it’s all done?

BB/929: No, not if they’re building a Debenhams. **I can’t afford anything from there.**

[Tyneside]

3.7.6. Locality, speaker sex and speaker age

The tokens were coded for three external factors as described in Chapter 2, section 2.5.2: locality, speaker sex, and speaker age. Locality was coded as Glasgow, Tyneside or Salford. Sex was coded as ‘male’ and ‘female’. Age was coded as ‘younger’ (18-27) or ‘older’ (38-78).

3.8. Results of quantitative analysis

In this section, I present the results of the quantitative analysis of *not*-negation, *no*-negation and negative concord in the data from Glasgow, Tyneside and Salford. The overall distribution of the variants is examined first, followed by exploration of linguistic and extralinguistic factors that constrain the variation. A mixed-effects logistic regression is undertaken in section 3.8.8 to ascertain the relative strength of these factors.

3.8.1. Overall distribution

The relative frequency of *not*-negation, *no*-negation and negative concord differs significantly across the communities ($\chi^2=26.64$; d.f.=4; $p<0.001$), shown in Figure 3.1. *No*-negation is strongly preferred in Tyneside (71.5%) and less so in Glasgow (57.1%), but is used at an even lower rate in Salford (44.1%), where it has the same relative frequency as *not*-negation. The opposite ranking of localities pertains with respect to their rates of *not*-negation. If there is ongoing change from *no*-negation to *not*-negation as previous literature has suggested (Tottie 1991a, b; Varela Pérez 2014), these initial results suggest that Tyneside is the most conservative dialect of the three in this regard. Furthermore, the higher the rate of *not*-negation, the higher the rate of negative concord. This trend, along with the fact that the frequencies of *no*-negation and *not*-negation do not correlate in this way (e.g. Tyneside has a higher rate of *no*-negation than Glasgow, but a lower rate of *not*-negation), is consistent with Account 2 of the variation in which only *not*-negation and negative concord have the same underlying structure.

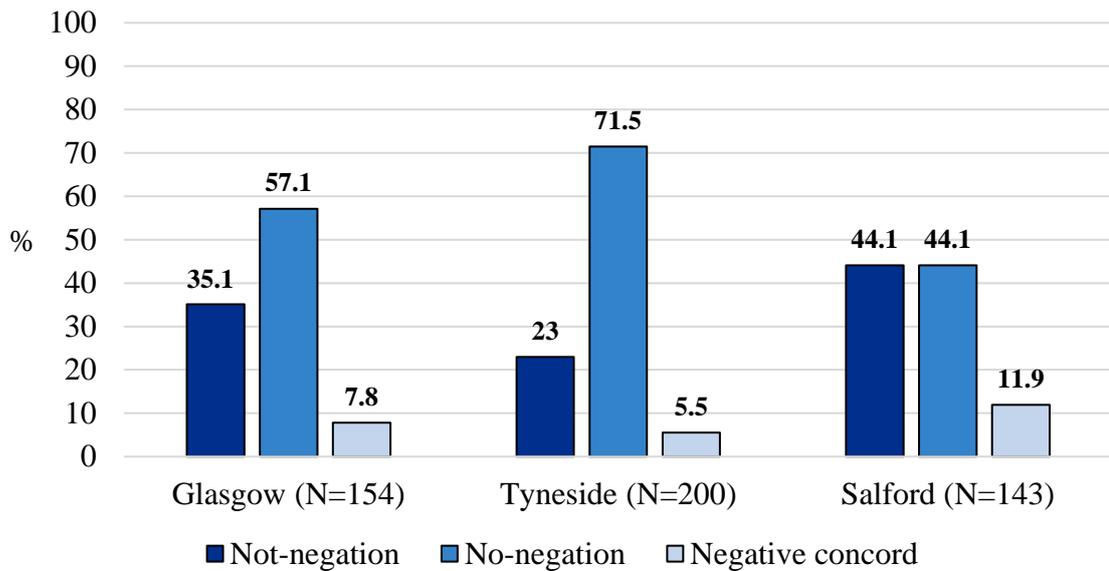


Figure 3.1: Overall distribution of *not*-negation, *no*-negation and negative concord

The relative frequency of negative concord in Tyneside is lower than the rate of 20.5% that Anderwald (2002; 2005) observed for North East England in the BNC, but is remarkably close to Beal and Corrigan's (2005: 146) rate of 6% in their TLS corpus sample. Negative concord may therefore have been used at a fairly consistent rate over time in the North East of England, though one must bear in mind the differences in the variable context and interview circumstances between the TLS sample and my NECTE2 sample.³⁶ The relative frequency of negative concord for Glasgow (7.8%) is almost exactly the same as the rate that Anderwald found for Scotland as a whole (7.9%), while the relative frequency of 11.9% for Salford is close to her percentages for Northern England (7.7%) and Central Northern England (9.6%).

The next section will examine some of the linguistic constraints on the choice of variant that underlie these overall frequencies.

³⁶ Beal and Corrigan (2005: 147) cite *as long as there's no bad language or nowt* as an example they included, which was a type of token I removed from my sample (see section 3.6.3). The TLS and NECTE2 components differ in methodology as the TLS speakers were all from Gateshead and interviewed one-on-one with a single interviewer who was also Gateshead-born. The NECTE2 interviews in my sample were conducted by undergraduate students at Newcastle University who were not necessarily from the North East of England, or the UK. These interviews feature two participants who are well-acquainted (see Chapter 2).

3.8.2. *Verb type*

Figure 3.2 shows the distribution of variants according to the type of main verb. Existential *there+BE* has overwhelmingly high rates of *no*-negation cross-dialectally, from 92% in Glasgow to 100% in Salford. Although the total number of BE tokens is small, BE also tends to occur with *no*-negation in every locality. The higher frequencies of *no*-negation in my data compared to Tottie's (1991b: 232) sample most likely reflect her inclusion of complements with an indefinite or zero article that do not readily incorporate negation.³⁷ The lowest frequencies of *no*-negation are reserved for DO and the other lexical verbs, which tend to occur with *not*-negation. Although the relative ranking of DO and lexical verbs differs cross-dialectally, the percentages are similar in each locale, suggesting that they behave alike. This ranking of verb types corroborates the trends observed in previous studies (Tottie 1991b; Varela Pérez 2014; Childs *et al.* 2015). As for HAVE and HAVE GOT, these display locality-specific trends. The Glasgow data exhibits similar rates of *no*-negation with both HAVE (60%) and HAVE GOT (63.6%) and the frequency of the other two variants is similar in each context. The same is true in Salford, where HAVE occurs with *no*-negation 70% of the time compared to 60% for HAVE GOT. However, Tyneside behaves differently, with a very high percentage of *no*-negation with HAVE GOT (92.9%) compared to HAVE (67.9%).

³⁷ This is supported by her observations that variable instances of *not*-negation tend to include *any* (or potentially permit it) and that variable tokens of *no*-negation more naturally correspond to an underlying *any* than *a/an/∅* (Tottie 1991b: 263).

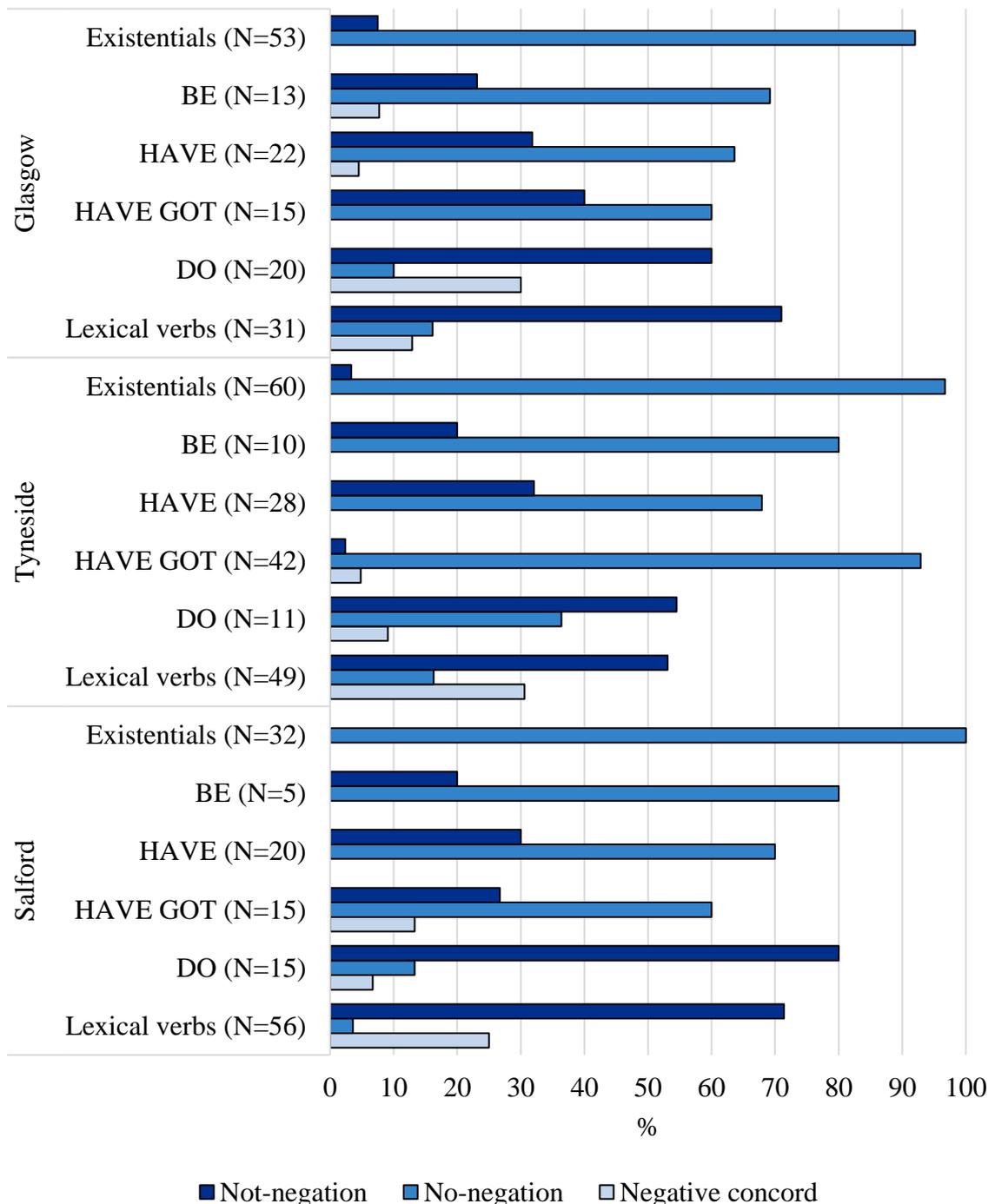


Figure 3.2: Distribution of *not*-negation, *no*-negation and negative concord according to main verb, per locality

The fact that *no*-negation is dispreferred with lexical verbs is consistent with the hypotheses derived from Account 1 and Account 2: lexical verbs constitute additional material in the syntactic structure between the negative operator and the indefinite, which disrupts Agree (in Account 1) or adds to the cost of negative movement out of the DP to NegP (in Account 2). The findings for negative concord, however, support Account 2 over Account 1. Negative concord patterns like *not*-negation in having higher frequencies with lexical as opposed to

functional verbs. This result would be unexplained under Account 1, which predicts that negative concord would pattern similarly to *no*-negation and be dispreferred with lexical verbs due to both involving the same Agree relation that is disrupted by intervening material.

HAVE GOT has a somewhat uncertain syntactic status as a semi-grammaticalised form of auxiliary HAVE plus main verb GOT (Quinn 2000). However, the fact that it tends to take *no*-negation suggests that with indefinite NPIs under negation, it behaves most like HAVE. This is unexpected if GOT in HAVE GOT is a main verb, in which case we would expect *no*-negation to be disfavoured under both Account 1 and 2. It seems that GOT (in HAVE GOT) may be more transparent to the Agree relation (Account 1) or movement (Account 2) required for *no*-negation than ordinary lexical verbs are. This may be related to the status of HAVE GOT as functional, or because GOT in HAVE GOT is ‘semantically void’ (Berdan 1980: 388).

Previously Tottie (1991a, b) had claimed that BE and HAVE retain *no*-negation to a greater extent than lexical verbs because the former are higher frequency, thus are less susceptible to adopting the newer variant, *not*-negation. Although this interpretation of frequency as promoting the retention of older syntactic forms has persisted in subsequent analyses (Bybee & Hopper 2001; Varela Pérez 2014), my results in this section have shown that the verb type effects can be explained with appeal to the underlying structure and syntactic derivations.

The analysis in this section has considered the overall general tendencies of different types of main verb for comparison with previous quantitative studies of the variation (Tottie 1991a, b; Varela Pérez 2014; Childs *et al.* 2015). However, the complexity of the verb structure, i.e. the presence of auxiliaries, is also expected to affect the choice of variant (see sections 3.3.2 and 3.4.1), as explored in the following section.

3.8.3. *Complexity of the verb structure*

Table 3.5 displays the relative frequency of each variant according to the complexity of the verb structure. My results are consistent with the tendency for simple verb phrases to occur with *no*-negation and those with additional auxiliary verbs to typically take *not*-negation (Tottie 1991b: 224; Varela Pérez 2014: 374).

	<i>Not-negation</i>		<i>No-negation</i>		Negative concord		Total N
	%	N	%	N	%	N	
Existentials							
Simple verb	4.2%	6	95.8%	138	0%	0	144
With non-modal auxiliary	-	0	-	1	-	0	1
HAVE							
Simple verb	20.8%	11	77.4%	41	1.9%	1	53
With non-modal auxiliary	(55.5%)	5	(44.4%)	4	(0%)	0	9
With modal/semi-modal	(75%)	6	(25%)	2	(0%)	0	8
HAVE GOT							
Simple verb ³⁸	15.3%	11	79.2%	57	5.6%	4	72
BE							
Simple verb	19.2%	5	76.9%	20	3.8%	1	26
With non-modal auxiliary	-	-	-	-	-	-	-
With modal/semi-modal	(50%)	1	(50%)	1	(0%)	0	2
DO							
Simple verb	58.3%	14	29.2%	7	12.5%	3	24
With non-modal auxiliary	66.7%	8	8.3%	1	25%	3	12
With modal/semi-modal	80%	8	0%	0	20%	2	10
Lexical verbs							
Simple verb	54.4%	37	25%	17	20.6%	14	68
With non-modal auxiliary	75%	21	17.9%	5	7.1%	2	28
With modal/semi-modal	75%	30	0%	0	25%	10	40

Table 3.5: Distribution of *not-negation*, *no-negation* and negative concord according to the complexity of the verb structure

Grouping the results by the type of main verb shows that existentials, HAVE GOT and BE almost categorically occur without auxiliaries in the envelope of variation, meaning that any effect of additional auxiliary verbs cannot be established for these verb types. The results for HAVE show a high preference for *no-negation* when the verb is simple, but a preference for *not-negation* when there are additional auxiliaries, which is particularly high with modals or semi-modals. Similarly, the results for DO and lexical verbs show that the frequency of *no-negation* is higher in simple verb constructions compared to those with auxiliary verbs. These results for *no-negation* are consistent with the hypotheses generated on the basis of Account 1 and Account 2 respectively, as in constructions with an auxiliary verb, the main verb necessarily resides in VP and thus disrupts Agree (Account 1) or constitutes extra material that the DP-internal negation must raise over to reach NegP (Account 2). Negative concord is similarly expected to be disfavoured in constructions with auxiliary verbs under Account 1,

³⁸ ‘Simple’ HAVE GOT constructions are those where HAVE GOT is the only verb and there are no auxiliaries or modals present.

since it involves the same Agree relation, whereas Account 2 does not make such a prediction. Negative concord is more frequent with main verb DO when auxiliaries are present, but its frequency amongst other lexical verbs with and without auxiliaries is more varied. These findings do not conclusively support Account 1 or 2 over the other, since they are based on low token numbers.

3.8.4. Indefinite item

The cross-tabulation in Table 3.6 displays the relative frequency of *not*-negation, *no*-negation and negative concord with each type of indefinite item, given previous studies finding that this is a relevant factor in the choice of variant (Tottie 1991b; Smith 2001; Varela Pérez 2014).

	<i>Not</i> -negation		<i>No</i> -negation		Negative concord		Total N
	%	N	%	N	%	N	
Glasgow							
<i>-one</i>	-	1	-	1	-	0	2
<i>any, no/none</i>	33.8%	26	66.2%	51	0%	0	77
<i>(n)owt</i>	-	0	-	0	-	0	0
<i>-thing</i>	34.5%	20	48%	28	17.2%	10	58
<i>-body</i>	43%	6	43%	6	14.3%	2	14
<i>-where</i>	-	1	-	2	-	0	3
Tyneside							
<i>-one</i>	-	2	-	6	-	0	8
<i>any, no/none</i>	18.8%	19	77.2%	78	4.0%	4	101
<i>(n)owt</i>	0%	0	85.7%	12	14.3%	2	14
<i>-thing</i>	25.4%	15	68%	40	6.8%	4	59
<i>-body</i>	60%	6	40%	4	0%	0	10
<i>-where</i>	-	4	-	3	-	1	8
Salford							
<i>-one</i>	-	0	-	2	-	0	2
<i>any, no/none</i>	44.3%	31	50%	35	5.7%	4	70
<i>(n)owt</i>	18.2%	2	36.4%	4	45.5%	5	11
<i>-thing</i>	48.9%	23	34%	16	17%	8	47
<i>-body</i>	-	1	-	2	-	0	3
<i>-where</i>	60%	6	40%	4	0%	0	10

Table 3.6: Distribution of *not*-negation, *no*-negation and negative concord according to the indefinite item, per locality

Though there are some areas of cross-dialectal variation, *any*, *no/none* has consistently high rates (at least 50%) of *no*-negation across the communities. In the Tyneside and Salford dialects where the items *owt* and *nowt* (“anything” and “nothing”) are used, *no*-negation is preferred. *(N)owt* is also the preferred context overall for negative concord in both localities. Thus, there is greater propensity to use the non-standard negative variant (negative concord) with a non-standard indefinite item.

In case there is interaction between verb type and indefinite item in determining the choice of *not*-negation, *no*-negation and negative concord, the next section presents a cross-tabulation of the two factors.

3.8.5. *Verb type and indefinite item – a correlation?*

Table 3.7 shows the number of tokens of each indefinite item with each verb type. The final column displays the percentage of the sample for a given verb type that a particular indefinite item contributes. For example, 2.8% of the total number of tokens of existentials consist of constructions with *-one*. As this table involves stratifying the data further, a cross-dialectal comparison would suffer from low token counts per cell. The table therefore shows aggregate results from all three datasets and also combines *(n)owt* (N=25) with its Standard English counterpart *-thing* in order to see trends more clearly.

	<i>Not-negation</i>	<i>No-negation</i>	Negative concord	Total N	% of tokens within verb type
	N	N	N		
Existentials					
<i>-one</i>	0	4	0	4	2.8%
<i>any, no/none</i>	6	81	0	87	60%
<i>-thing, (n)owt</i>	0	40	0	40	27.6%
<i>-body</i>	0	10	0	10	6.9%
<i>-where</i>	0	4	0	4	2.8%
BE					
<i>-one</i>	0	0	0	0	0%
<i>any, no/none</i>	2	12	0	14	50%
<i>-thing, (n)owt</i>	0	7	1	8	29%
<i>-body</i>	2	0	0	2	7.1%
<i>-where</i>	2	2	0	4	14.3%
HAVE					
<i>-one</i>	0	3	0	3	4.3%
<i>any, no/none</i>	20	32	0	52	74.3%
<i>-thing, (n)owt</i>	2	11	1	14	20%
<i>-body</i>	0	0	0	0	0%
<i>-where</i>	0	1	0	1	1.4%
HAVE GOT					
<i>-one</i>	0	1	0	1	1.4%
<i>any, no/none</i>	9	32	3	44	61.1%
<i>-thing, (n)owt</i>	1	20	1	22	30.6%
<i>-body</i>	1	2	0	3	4.2%
<i>-where</i>	0	2	0	2	2.8%
DO					
<i>-one</i>	0	0	0	0	0%
<i>any, no/none</i>	5	0	0	5	10.9%
<i>-thing, (n)owt</i>	25	8	8	41	89.1%
<i>-body</i>	0	0	0	0	0%
<i>-where</i>	0	0	0	0	0%
Lexical verbs					
<i>-one</i>	3	1	0	4	2.9%
<i>any, no/none</i>	34	7	5	46	33.8%
<i>-thing, (n)owt</i>	32	14	18	64	47.1%
<i>-body</i>	10	0	2	12	8.8%
<i>-where</i>	9	0	1	10	7.4%

Table 3.7: Cross-tabulation of verb type and indefinite item

Verbs which occur with *no-negation* most often – existentials, BE, HAVE and HAVE GOT – tend to take the same types of indefinite items. For each of these verb types, at least 50% of the tokens have *any/no/none* and between 20% and 30.6% have *-thing/(n)owt*. DO and lexical

verbs, which most often have *not*-negation, pattern differently; they take *-thing/(n)owt* much more often than the other verb types (89.1% and 47.1% of the time respectively) and *any/no/none* much less (10.9% and 33.8% respectively). Thus, there is a correlation between the verb type and the type of indefinite item that the verb selects. Regression analysis (see section 3.8.8) will provide a means of disentangling these two factors to establish whether verb type or indefinite item is the significant factor affecting the choice of variant.

3.8.6. *Discourse-old and discourse-new*

Figure 3.3 shows the distribution of *not*-negation, *no*-negation and negative concord in the data according to whether the expression relates to a discourse-old proposition or provides discourse-new information, coded as per Table 3.4 in section 3.7.5. In this significant distribution ($\chi^2=26.80$; d.f.=2; $p<0.001$), *no*-negation is the majority variant in both discourse-old and discourse-new contexts, but the propensity to use *no*-negation is greater when the information conveyed is discourse-new. In parallel, the use of *not*-negation decreases in discourse-new compared to discourse-old contexts. The rate of negative concord is relatively stable across the two contexts – it is only slightly higher in discourse-old contexts. Thus, there is functional differentiation between the use of *not*-negation and *no*-negation.

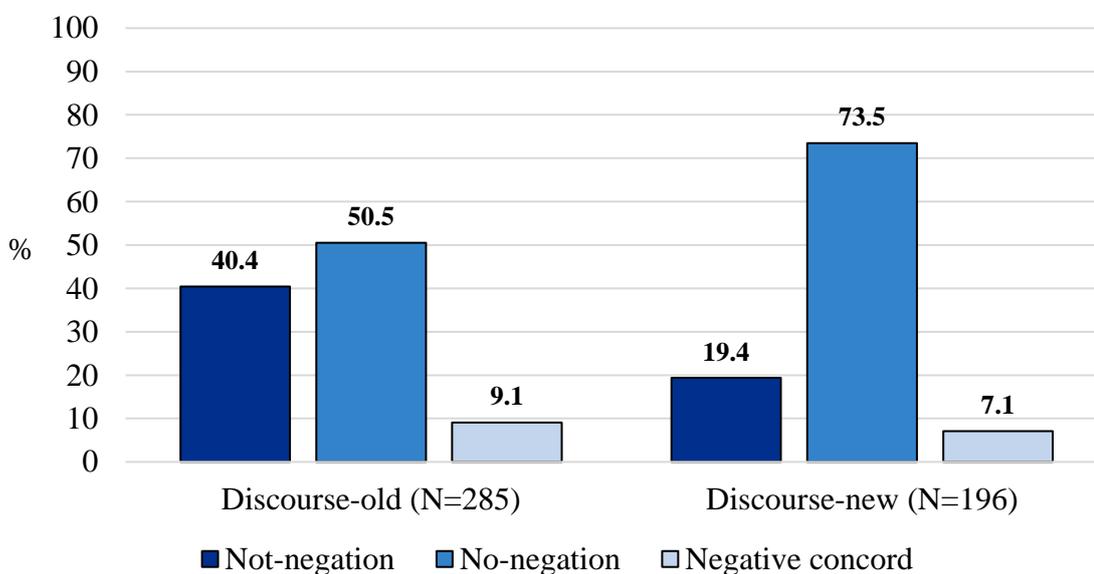


Figure 3.3: Distribution of *not*-negation, *no*-negation and negative concord according to the discourse status of the proposition expressed

The overall distribution in Figure 3.4 is significant ($\chi^2=22.59$; d.f.=6; $p<0.001$) and shows that *not*-negation is the most frequently employed variant when speakers negate a prior

proposition or inference that was *positive*, i.e. in explicit denials and cancellations of inferences. In cases where the original proposition was *negative*, i.e. repetitions and assertions of inferences, the *no* variant is used most (though the rate of *no*-negation is only slightly higher than for *not*-negation in assertions). Negative concord displays the same tendencies as *not*-negation, occurring at the highest frequencies in the following categories: denial > cancellation > assertion > repetition. This result lends support to Account 2 of the variation in which only *not*-negation and negative concord have the same structure, whereas *no*-negation differs. Furthermore, this functional specialism of *no*-negation to introduce discourse-new information is in line with the tendency for new information to be introduced in post-verbal position (Ward & Birner 2003, 2008). While *no*-negation marks negation in the post-verbal DP, *not*-negation and negative concord mark it in the pre-verbal NegP. *No*-forms in negative concord are not marked for negation DP-internally but agree with the marker in the NegP.

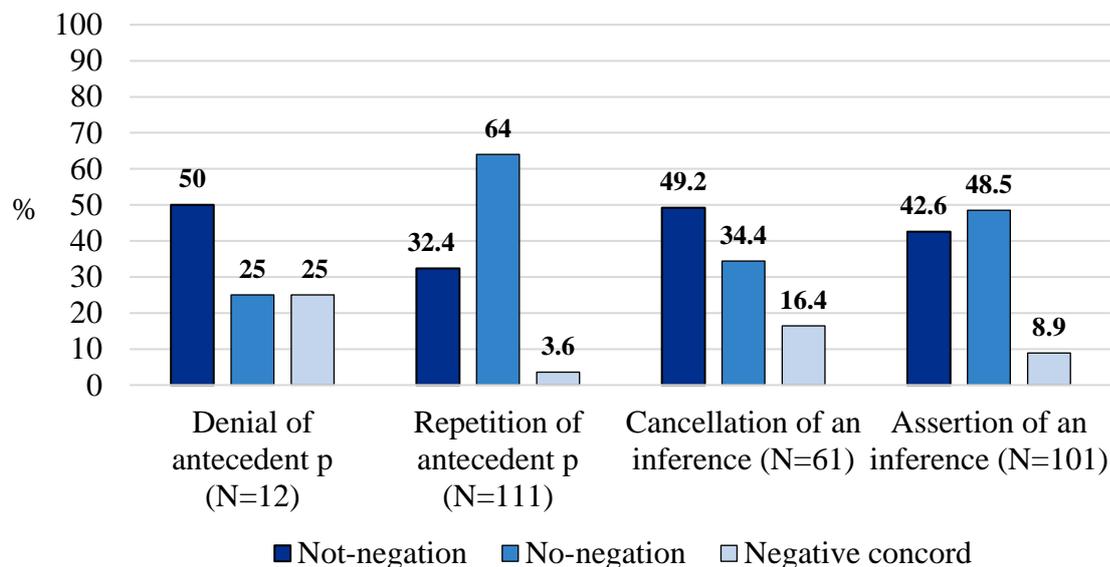


Figure 3.4: Distribution of *not*-negation, *no*-negation and negative concord in discourse-old contexts according to specific functions

Wallage (2012: 6) notes that repetitions may tend to take the same variant that was used to express the original proposition, but did not explore this further. Table 3.8 reveals the nature of this effect in my data, from 55 tokens of repetitions from variable speakers³⁹ and excluding existentials (since they almost always take *no*) to prevent obscuring patterns in the data. The conclusions drawn from Table 3.8 must remain very tentative because of the low number of

³⁹ Variable speakers are those who use two or more of the three variants *or* a single token of one variant, to prevent bias from speakers who produce the same variant consistently.

tokens, but the results do suggest a potential relationship between the linguistic form of the original proposition and the choice of variant in a subsequent repetition of that proposition. When the original expression of the proposition has either *not*-negation or *no*-negation, the repetition of that proposition takes the same variant 72-75% of the time. When the original expression of a proposition has a *not*- form which is outside the current variable context (e.g. without a post-verbal indefinite), there is only a slight preference for *not*-negation in the repetition (53.8%). In cases where the original utterance has no explicit negator, the likelihood of *not*-negation or *no*-negation being used in the subsequent repetition is almost equal.

	Variant in repeated proposition						Total N
	<i>Not</i> -negation		<i>No</i> -negation		Negative concord		
Linguistic features of the original expression	%	N	%	N	%	N	
<i>Not</i> -negation	75%	12	12.5%	2	12.5%	2	16
<i>No</i> -negation	27.3%	3	72.7%	8	0%	0	11
Negative concord	-	1	-	0	-	0	1
<i>Not</i> outside variable context	53.8%	7	30.8%	4	15.4%	2	13
<i>No</i> outside variable context	-	1	-	2	-	0	3
Affirmative sentence	54.5%	6	45.5%	5	0%	0	11

Table 3.8: Choice of *not*-negation, *no*-negation or negative concord in repeated propositions in relation to the original form

Speakers may therefore be able to recall the linguistic form used to express a proposition, which may influence their choice of variant in repetitions of the same proposition. If this is the case, the result has methodological implications as it suggests that these repetitions of previously-stated propositions ought to be excluded from the regression analysis, which I adhere to in section 3.8.8. Furthermore, Labovian sociolinguistics assumes that each token of a given variant is effectively autonomous, but the above result suggests that the linguistic form of one token can affect the form of subsequent tokens, in line with sociolinguistic analyses of the persistence of syntactic variants in discourse (Scherre & Naro 1992; Tamminga 2014).

As verb affects the choice of variant (see section 3.8.2), the discourse status effects observed here could reflect the semantics of particular verb types. Figure 3.5 presents a cross-tabulation of discourse status with verb type to show whether this is the case. The results provide strong evidence that the effect of discourse status on the choice of variant is independent of verb

type. In my data, existentials occur in both discourse-old and discourse-new environments, contrary to claims that existentials categorically introduce new information (Ward & Birner 2008: 164). This finding is in keeping with the argument that existentials introduce new *referents*, which are either completely new or already known but brought to the attention of the interlocutors again (Cruschina 2011: 73). There are only five tokens of *not*-negation with existentials, all of which occur in discourse-old contexts, which is consistent with the fact that discourse-old environments promote *not*-negation overall. All six tokens of *not* with BE also occur in discourse-old contexts. While Tottie (1991b) found an effect of discourse status on the choice of *not* or *no* only for existentials, Figure 3.5 displays strikingly consistent behaviour across all six verb types. Within every single verb category, *no*-negation is more frequent in discourse-new contexts than discourse-old contexts, and the reverse is true for *not*-negation. The relative frequency of negative concord does not appear to be greatly affected by the discourse status of the information expressed.

The effect of discourse status on the choice of variant therefore holds *in addition* to the verb type effect. The majority variant for each verb type overall is the same in discourse-old vs. discourse-new contexts, but the frequency of *not*-negation in discourse-new contexts increases as the overall rate of *not*-negation increases. *Not*-negation is therefore specialised for discourse-old contexts and *no*-negation specialised for discourse-new, but the more speakers use a particular variant, the more likely they are to use it in its “non-typical” environment.

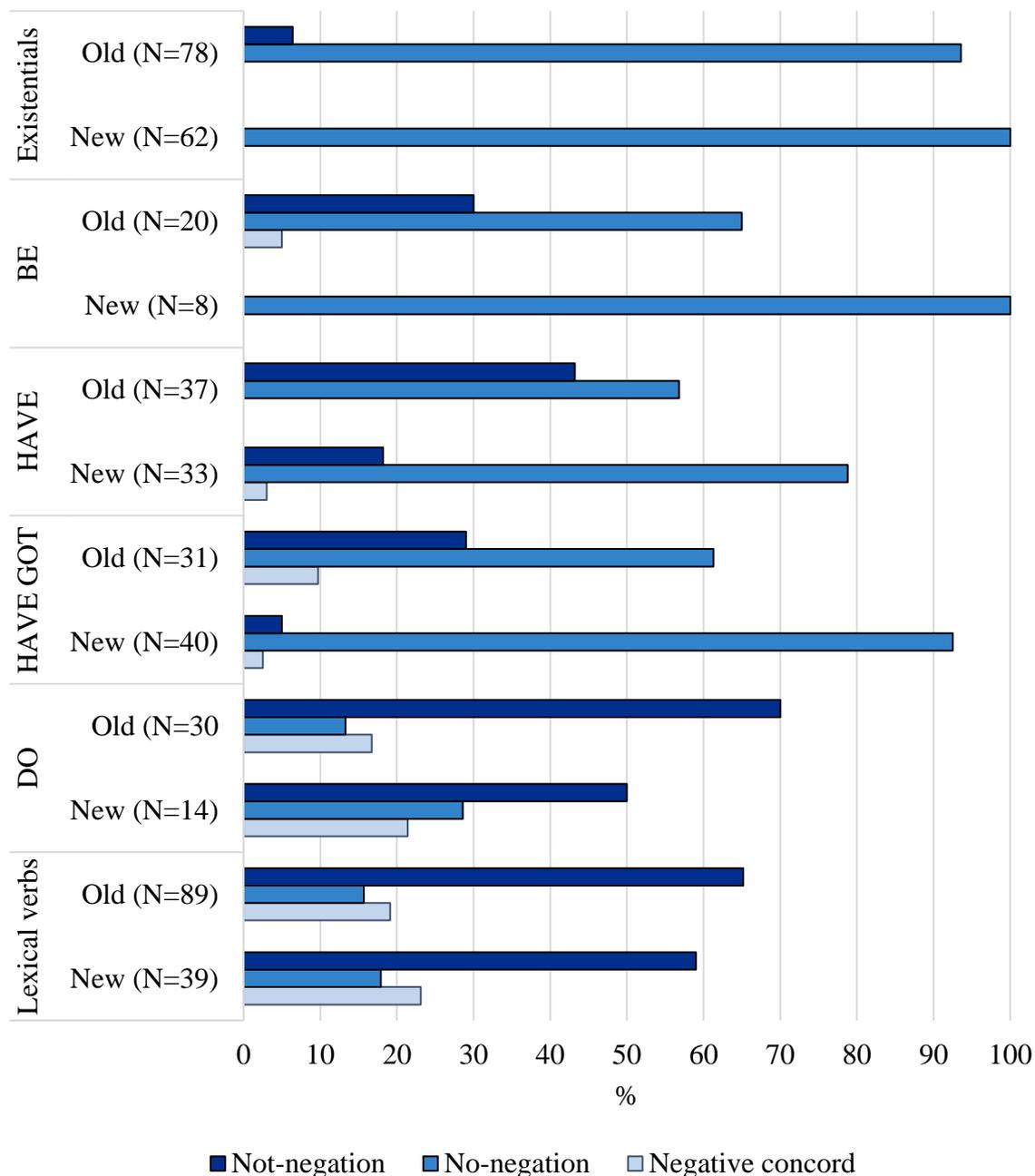


Figure 3.5: Distribution of *not*-negation, *no*-negation and negative concord according to the discourse status of the proposition expressed and verb type

Even when repetition tokens are removed, the overall trends are maintained. Cell percentages change very little, if at all (5.2% maximum), except for HAVE where there was a change of 9.2%. Although this means that *not*-negation slightly outnumbers *no*-negation for HAVE in discourse-old contexts, the difference amounts to only one token. Furthermore, a comparison of the variation across the three communities revealed that *no*-negation is used to a greater extent in presenting discourse-new information than in discourse-old contexts across all verb types, in every locale. There are only two exceptions: (i) lexical verbs in Glasgow, where 3/15

tokens in discourse-old contexts were *no*-negation compared to 0/6 in discourse-new contexts, and (ii) existentials and BE in Salford which take *no*-negation categorically.

The final set of analyses in this section investigates the overall frequency of variants in discourse-old and discourse-new contexts in each of the three datasets under study as well as consideration of the specific functions that comprise the discourse-old contexts. The results in Figure 3.6 are significant ($\chi^2=51.16$, d.f.=10, $p<0.001$) and show that although the relative frequency of each variant differs across discourse-old and discourse-new contexts for each locality, *no*-negation occurs at a higher rate in discourse-new environments than discourse-old ones in all three localities: Glasgow (69.5% vs. 51.2%), Tyneside (83.9% vs. 61.6%) and Salford (60% vs. 36%). *Not*-negation behaves in the opposite way, as expected. The data for negative concord becomes sparser when divided into this number of categories so I do not draw any conclusions about its distribution here.

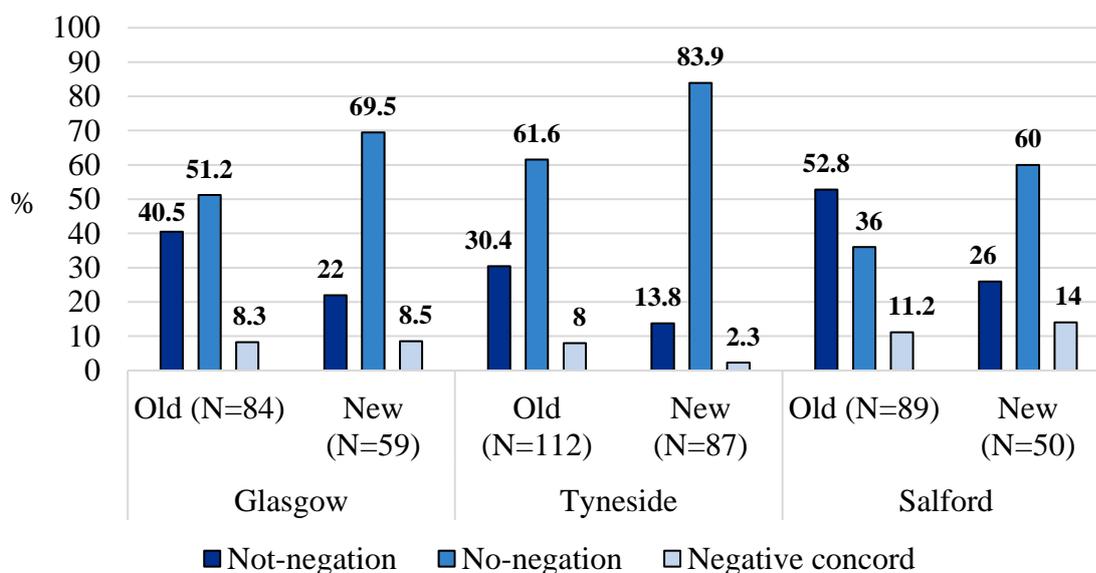


Figure 3.6: Distribution of *not*-negation, *no*-negation and negative concord according to discourse status, per locality

As noted in section 3.8.1, the Salford speakers use *not*- and *no*-negation in equal amounts overall (44.1%), whereas Glasgow and Tyneside speakers use *no*-negation the majority of the time (57.1% and 71.5% respectively). Figure 3.6 shows that Glasgow and Tyneside speakers prefer *no* in both discourse-old and discourse-new contexts, reflecting the fact that it is their preferred variant overall, but there is still a greater percentage of *no*-negation in discourse-new contexts, showing that the discourse effect holds. While Salford speakers had no overall preference for *not*- or *no*-negation, using both at equal rates, they alternate between a

preference for *not*-negation in discourse-old contexts to a preference for *no*-negation to introduce discourse-new information.

The next step is to break down the category of discourse-old information into its sub-functions and see if there are any locality-specific effects, as presented in Figure 3.7.

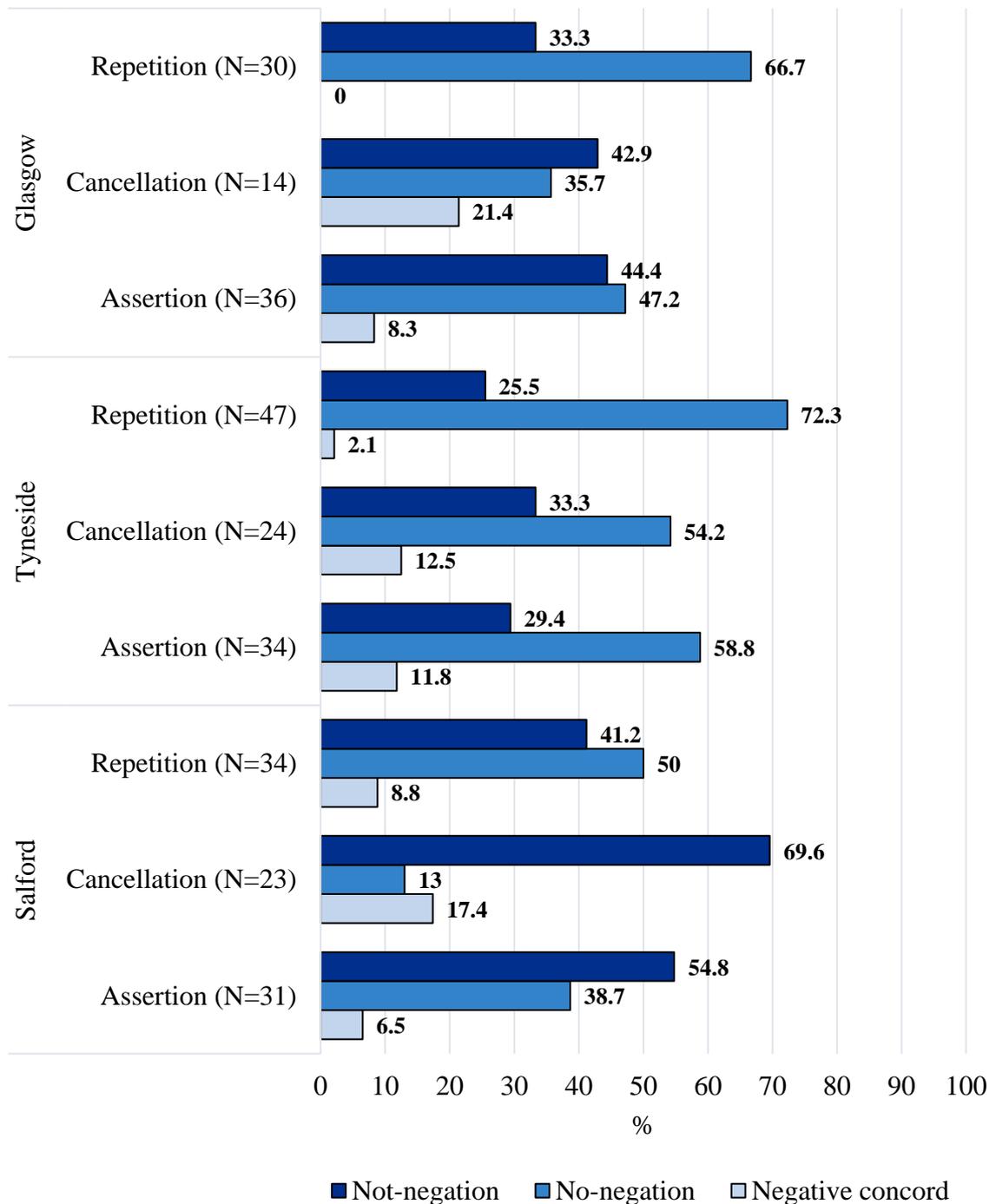


Figure 3.7: Distribution of discourse-old variants according to specific functions, per locality

The denials category is not presented in Figure 3.7 due to low numbers in each dataset (N=4 in Glasgow; N=7 in Tyneside; N=1 in Salford). Cross-dialectally, the rate of *no*-negation is highest for repetitions, followed by assertions of inferences, then cancellations of inferences. The higher the rate of *no*-negation in the community overall, the higher the rate of *no*-negation in repetitions. This result is consistent with the proposal that the linguistic form of a previously expressed proposition impacts upon the choice of variant when repeating that proposition. Tyneside speakers tend to use *no*-negation for all discourse functions, but to a lesser extent for cancellations and assertions of inferences than repetitions. Although Glasgow speakers tend to use *no*-negation overall and this is maintained for repetitions and assertions (albeit slightly), cancellations promote the use of *not*. For Salford speakers, the use of *not*-negation is particularly prominent when expressing something *implicit*, as is the case with cancellations and assertions of inferences. In this context in the Salford data, the variant which is normally the minority, negative concord, is used more often than *no*-negation. The fact that negative concord is used to this extent in cancellations of inferences supports previous assertions that the variant can be used for emphasis (Labov 1972a: 810).

3.8.7. *Speaker sex and speaker age*

This section concerns the effect of speaker sex and age on the choice of variant, beginning with comparisons of each factor individually per locality, followed by an analysis of both factors together. As explained in section 3.7.6, sex and age are key independent variables in variationist research as they can provide insight into linguistic change in progress. As *no*-negation is thought to be declining in favour of *not*-negation (Tottie 1991a, b; Varela Pérez 2014), this could be reflected in the variants' social distribution.

Before undertaking this analysis, existentials were removed because I have established above that although they do behave like other verb types with respect to discourse status, they occur with *no*-negation near-categorically. To include them in an analysis of the variation on social dimensions could potentially result in erroneously high rates of *no*-negation amongst a particular social group simply because they used more existential constructions. Only speakers who use two or more of the three variants *or* a single token of one variant will be included in these analyses, because the inclusion of speakers who use a single variant two or

more times may skew the results (Pichler 2013: 60).⁴⁰ These exclusions reduce the sample size from 497 to 304 tokens.

Figure 3.8 shows the distribution of variants according to speaker sex in Glasgow, Tyneside and Salford, amongst only the variable speakers⁴¹ and excluding existentials. There are significant differences between the sexes in Tyneside ($\chi^2=15.87$, d.f.=2, $p<0.001$) but not Glasgow ($\chi^2=0.43$, d.f.=2, $p>0.05$) or Salford ($\chi^2=4.55$, d.f.=2, $p>0.05$). The lack of significance of the Glasgow and Salford results is not surprising given the similar frequencies of each variant for both men and women. Tyneside, on the other hand, exhibits a very striking, significant difference between men's and women's variant preference: men use *no-*negation the majority of the time whereas women prefer *not-*negation. Negative concord is also used slightly more by men than women. The social embedding of linguistic variation therefore differs across communities (Labov 2001: 28).

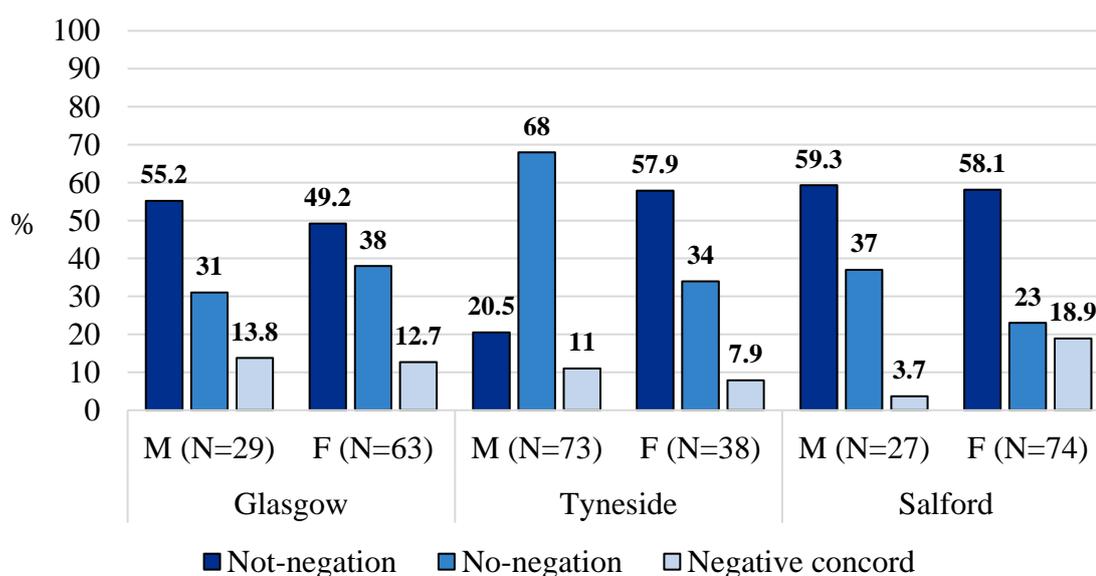


Figure 3.8: Distribution of *not*-negation, *no*-negation and negative concord according to speaker sex in each locality (variable speakers only; M=male and F=female)

Figure 3.9 shows the distribution of variants according to age group in each locality, again excluding existentials and with only variable speakers.⁴² There are no significant distinctions between younger and older speakers in Tyneside or Salford, but the Glasgow distribution is

⁴⁰ A total of 19 speakers (84 tokens) were excluded for this reason.

⁴¹ If all of the speakers are included, not just those that are variable, the overall trends for speaker sex do not change.

⁴² The overall age trends are unchanged when invariable speakers are included in the sample.

significant.⁴³ Lack of significance in the former two communities is partly due to the relatively low number of tokens per cell. In the light of evidence from previous studies suggesting that *no*-negation is declining in favour of *not*-negation (Tottie 1991a: 462; Varela Pérez 2014), the Glasgow distribution is surprising as younger people have higher rates of *no*-negation than the older generation, though the percentage difference is small. The much lower frequency of *not*-negation in the younger group compared to the older group appears to be a reflex of the younger speakers' much greater propensity to use negative concord. In other words, the rates of marking negation higher in the syntactic structure (in NegP) may actually be the same for younger and older speakers, but the younger speakers tend to use less *any* (*not*-negation) and more *no* (negative concord). The same effect could account for the Salford distribution where *no*-negation rates are again consistent between age groups but the frequency of *not*-negation and negative concord appear related to one another. These observations lend additional support to Account 2 of the variation in which these two variants are structurally distinct from *no*-negation. Only the apparent-time evidence from Tyneside is consistent with the suggested decline in the use of *no*-negation, but this result is not significant.

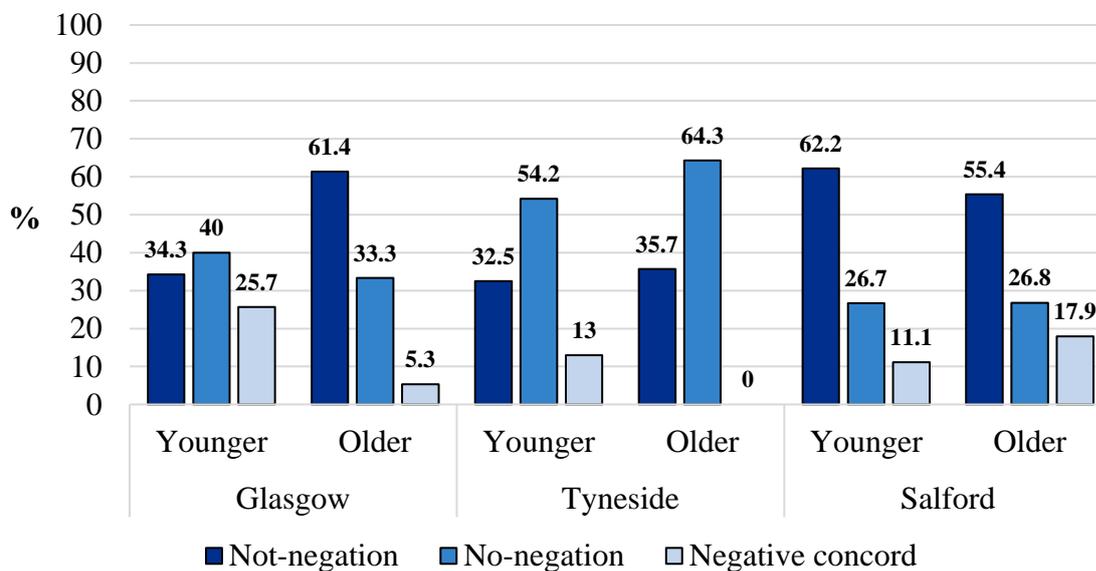


Figure 3.9: Distribution of *not*-negation, *no*-negation and negative concord according to speaker age in each locality (variable speakers only)

⁴³ The results of the chi-squared tests are as follows:

Glasgow: $\chi^2=10.34$, d.f.=2, $p<0.01$

Tyneside: $\chi^2=4.15$, d.f.=2, $p>0.05$

Salford: $\chi^2=0.97$, d.f.=2, $p>0.05$

These results in themselves do not provide convincing evidence of the proposed change from *no*-negation to *not*-negation. The lack of effect in this direction in Glasgow and Salford, coupled with the fact that these locales have lower rates of *no*-negation than Tyneside overall, could suggest that the change from *no*-negation to *not*-negation is more advanced and stabilising there compared to Tyneside, where *no*-negation is retained to a greater extent. This retention of an older form of language is consistent with the region's 'sense of isolation from the rest of England', particularly in geographical terms (Beal 2004b: 34; see also Burbano-Elizondo 2008: 143–4). However, since the diachronic decline in the use of *no*-negation has been ongoing for hundreds of years, it is perhaps no surprise that an apparent-time study of two generations of speakers does not directly reflect the suggested longitudinal trajectory. The same was true in Childs *et al.* (2015), where the rate of *no*-negation according to speakers' birth year fluctuated sporadically and was not significant in either Canada or Britain. However, plotting the frequency of *no*-negation according to speakers' age at the time of recording in York vs. North East England revealed a characteristic u-curve indicative of age-grading with middle-aged speakers using the variant less than the youngest and oldest groups of speakers in the 15-70+ span. The rate of *no*-negation amongst the youngest groups in each area was similar or slightly lower than that of the oldest groups in their respective datasets, indicating slow change towards *not*-negation (Childs *et al.* 2015).

The trends for speaker sex and age discussed thus far are relatively consistent when the two predictors are considered together by sub-dividing the social groups into young men, young women, older men and older women, as Figure 3.10 shows.

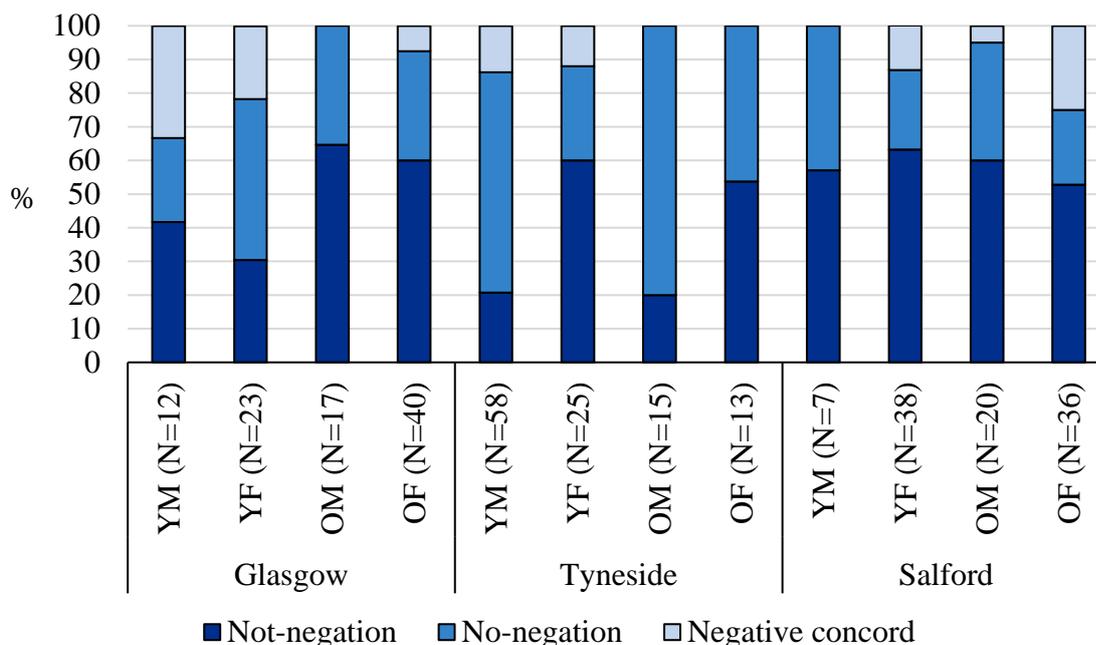


Figure 3.10: Distribution of *not*-negation, *no*-negation and negative concord according to sex and age groups in each locality

Many of the patterns for age and sex were insignificant when studied independently and further dividing the data naturally reduces the number of tokens per cell, but it is nevertheless useful to consider the general trends. Young Glaswegian females use *no*-negation more than their male peers, but in the older group, men and women have similar rates of use. *Not*-negation patterns in the opposite way, with younger men using it more than younger women, but older men and women having similar frequencies. The Tyneside data has clear, systematic patterns: *no*-negation is used more by men than women (who use more *not*-negation than the men) in each age group. In Salford, *not*-negation is used to a similar extent by all social groups. The main differentiator of those groups is therefore their relative frequency of *no*-negation and negative concord. Negative concord is hardly used by Salford men – only by the older speakers – but Salford women use it fairly frequently. This is in contrast to the other communities where negative concord is predominantly a young person’s feature.

3.8.8. Regression analysis

As the results so far have shown, several factors affect the choice of *not*-negation, *no*-negation and negative concord in Glasgow, Tyneside and Salford. These are the type of main verb, complexity of the verb structure, the indefinite item that is negated, the discourse status of the information conveyed, speaker sex, speaker age and locality itself. The results of the verb type and discourse status analyses have more strongly supported the syntactic derivation of

variants according to Account 2 as opposed to Account 1. Under Account 2, *no*-negation is derived via negative marking within the post-verbal DP followed by movement to NegP to receive sentential scope, whereas in Account 1 it arises due to Agree between a covert negative operator in NegP and the indefinite.

To determine the relative importance of the various factors and further test the hypotheses related to Account 1 and Account 2 respectively, I now conduct a mixed-effects logistic regression analysis. The factors included in the model are the verb type, discourse status, locality and a random effect of speaker. In section 3.8.5, there appeared to be a relationship between the type of verb and the indefinite item that was negated. When included in preliminary mixed-effects models with verb type, verb type consistently came out as significant whereas indefinite item did not. Therefore, verb type is the significant factor of the two that impacts upon the variation and only verb type is included in the final model so as not to include two factors which are collinear. Complexity of the verb structure is not included in the model because the majority of tokens are with lexical verbs and it is not possible to run regression with contexts where there is little to no variation, as this would bias the model (Guy 1993: 239).

Close examination of the effects of speaker sex and age revealed vastly different patterns across the three communities. To include these factors in the model along with locality would be problematic, since any significant effects may be due to patterns from one particular community. The effects of speaker sex and age in section 3.8.7 were found to be much less robust compared to the linguistic effects. This is perhaps not surprising as morpho-syntactic variables may not have as strong social patterning or salience as phonetic variables (Meyerhoff 2013: 32–4).

Following the standard sociolinguistic practice to remove contexts with little or no variation, only speakers who were variable in the sense defined earlier (that is, they used more than one variant or only one token of a single variant) were included in the regression. Existentials were excluded because of their near-categorical propensity to occur with *no*-negation and BE was excluded due to its low frequency per locality. DO and lexical verbs were combined as ‘lexical verbs’ as they have behaved similarly in the analyses thus far. Finally, as observed in section 3.8.6, repetition tokens tend to take the same variant as the variant used in the expression of the original proposition, so these tokens were also removed. After these exclusions, 212 tokens remain for the regression analysis.

As negative concord was relatively low frequency in the data as a whole, it is not viable to run negative concord as an application value in the regression. However, tokens of negative concord are included in the non-application values. It is also not viable to produce three separate runs, one for each of the three localities, because of low token numbers. Running a model for the three communities combined therefore maximises its statistical reliability.

Table 3.9 shows the results of two mixed-effects logistic regression analyses to establish the significance of linguistic and social factors in the choice of (i) *no*-negation over the other two variants (*not*-negation and negative concord) and (ii) *not*-negation over the other two variants.

	<i>No-negation</i>						<i>Not-negation</i>									
Total N	212						212									
AIC	193.5						238.3									
Log Likelihood	-89.7						-112.1									
Deviance	179.5						224.3									
	Estimate	Std. error	Z- value	p-value	Sig.	%	N	Estimate	Std. error	Z- value	p-value	Sig.	%	N		
(Intercept)	0.94009	0.45415	2.070	0.038450	*			-1.2056	0.5169	-2.332	0.01968	*				
Verb type																
<i>Reference level:</i>																
<i>HAVE</i>							78.8	52							13.5	52
HAVE GOT	0.34962	0.51043	0.685	0.493373		65.9	41	-0.9461	0.5992	-1.579	0.11437		31.7	41		
Lexical verbs	-2.70837	0.47668	-5.682	0.0000000133	***	15.1	119	1.5300	0.4700	3.256	0.00113	**	63.9	119		
Discourse status																
<i>Reference level:</i>																
<i>Discourse-new</i>							55.7	106							31.1	106
Discourse-old	-1.30870	0.38576	-3.393	0.000693	***	25.5	106	1.0603	0.3621	2.929	0.00341	**	59.4	106		
Locality																
<i>Reference level:</i>																
<i>Glasgow</i>							34.9	63							49.2	63
Tyneside	1.51838	0.48686	3.119	0.001816	**	59.5	74	-0.9274	0.5165	-1.796	0.07257	.	28.4	74		
Salford	-0.08299	0.48283	-0.172	0.863536		26.7	75	0.2522	0.5074	0.497	0.61912		58.7	75		
Speaker																
Random st. dev.	0 ⁴⁴						0.7913									

Table 3.9: Two mixed-effects logistic regression analyses of the combined effect of factors in the choice of *no-negation* and *not-negation* (negative concord included in the non-application values)

⁴⁴ A value of 0 for the standard deviation of the random effect indicates that the inter-speaker variability was very low.

As the results in Table 3.9 show, verb type is the most important factor affecting the choice of *not-* and *no-*negation. Not only is there a significant distinction between lexical verbs and other verb types, but this factor also has the largest range between the estimates for each level compared to any other factor. Lexical verbs strongly disfavour *no-*negation whereas HAVE and HAVE GOT slightly favour the variant, but there is no significant distinction between HAVE and HAVE GOT in this respect. The results for this factor are in complementary distribution: the *not-*negation run reveals that lexical verbs significantly favour *not-*negation, but again HAVE and HAVE GOT are not statistically distinct in disfavouring *not-*. The results for lexical verbs are consistent with both Account 1 and Account 2, whereby lexical verbs always reside in VP thus constitute extra material which interferes with the Agree relation required for *no-*negation (Account 1) or adds to the cost of moving *no-*negation out of the indefinite item to NegP (Account 2). The two accounts are distinguished by the predictions they make regarding negative concord, but these cannot be tested here because, as noted above, negative concord was too infrequent to be tested as an application value in a separate model. The tendency for HAVE GOT to occur with *no-*negation is contrary to the predictions of both Account 1 and 2 if we assume that HAVE is an auxiliary and GOT is a main verb. However, as previously discussed, this result likely reflects the unusual status of HAVE GOT as a semi-grammaticalised functional verb that is semantically-equivalent to HAVE (Quinn 2000).

Discourse status, the second factor tested in the model, also patterns with complementary distribution: *no-*negation is significantly favoured in discourse-new contexts while *not-*negation is significantly favoured in discourse-old contexts. *Not-*negation and *no-*negation therefore signal the discourse status of the proposition expressed, which may aid communicative efficiency by aiding hearers' processing and interpretation of negation in speech. As noted in relation to the distributional analysis, the propensity for *no-*negation to mark discourse-new information reflects a more general tendency for new information to be introduced post-verbally (Ward & Birner 2003, 2008).

The results for locality distinguish Tyneside from the other two communities with respect to their frequencies of *no-*negation. The differentiation of Tyneside from the other locales approaches significance in the *not-*negation run, at the 0.07 level. Glasgow and Salford, on the other hand, are not statistically distinct in their frequencies of these variants. These observations are consistent with the distributional results for locality, age and sex, which

together suggested that the change from *no*-negation to *not*-negation is least advanced in Tyneside compared to Glasgow and Salford. The fact that the selection of *no*-negation is significantly conditioned by locality while *not*-negation is not also indicates that the use of *no*-negation is distinct from the use of *not*-negation and negative concord combined, lending further support to the analysis of the variation under which *no*-negation is derived via a different structure and mechanism than *not*-negation and negative concord, i.e. Account 2, not Account 1. Further support for this interpretation stems from the fact that the *no*-negation run generated stronger levels of significance for all three fixed factors than the *not*-negation run.

3.9. Discussion

This chapter has presented a quantitative comparative analysis of *not*-negation, *no*-negation and negative concord in Glasgow, Tyneside and Salford with the intention of (i) establishing the extent to which the variants are conditioned by the same linguistic and discourse-pragmatic factors in each community; (ii) investigating whether the effects of speaker sex, age and locality provide evidence of diachronic change from *no*-negation to *not*-negation; and (iii) evaluating the evidence in favour or against two proposed syntactic structures for *no*-negation.

The chapter set out two potential accounts of the variation, Account 1 and Account 2, to test in the quantitative analysis. Account 1 is based on Zeijlstra's (2004) Multiple Agree theory of negative concord. Under this account, the three variants arise as follows: (i) *not*-negation constructions have a negative marker in NegP with [iNEG]; (ii) *no*-negation arises due to Agree between a covert negative operator with [iNEG] and the post-verbal indefinite item with [uNEG]; and (iii) negative concord is the result of Agree between the negative marker with [iNEG] and an indefinite item with [uNEG]. In Account 2, *not*-negation and negative concord are derived in the same way as in Account 1. However, *no*-negation is the result of negative marking within the DP ([iNEG]) which subsequently moves out of the phrase to the higher NegP to receive sentential scope (based on Kayne 1998; Svenonius 2002; Zeijlstra 2011).

These two accounts make different predictions about the variation in relation to verb type effects. Harvey (2013) suggested that the reason that BE and HAVE favour *no*-negation while lexical verbs favour *not*-negation is that the latter verbs cannot raise to I and therefore remain

in situ between the negative operator and the indefinite NPI. As it has frequently been observed that more complex structures and additional material between operator and targets for agreement promote non-agreement (Pietsch 2005: 129; Corbett 2006: 235–6; Buchstaller *et al.* 2013; Childs 2013), Harvey's (2013) suggestion can be accounted for under Account 1, in which an Agree relation between the operator and indefinite item would become impeded when a verb is in the VP. This leads to the prediction under Account 1 that both *not*-negation and negative concord would be dispreferred with lexical verbs as well as in constructions containing additional auxiliaries, since in those latter cases the main verb (regardless of type) is necessarily in the VP. Account 2 also predicts that *no*-negation would be dispreferred with lexical verbs and in constructions with additional auxiliary verbs, because the DP-internal negation would need to move over the main verb to the NegP landing site for sentential scope. In contrast to Account 1, Account 2 does not predict the same effect for negative concord, since this variant is derived by different means to *no*-negation, i.e. Agree.

As corroborated by mixed-effects logistic regression, the overall distribution of variants reveals that Tyneside speakers use *no*-negation significantly more than speakers in Glasgow and Salford. Across the three localities, the higher the rate of *not*-negation, the higher the rate of negative concord, while the rate of *not*-negation does not correlate with *no*-negation in this way. This suggests underlying structural similarity between *not*-negation and negative concord, consistent with Account 2 of the variation. Underneath these overall distributions, however, are a number of linguistic and extralinguistic effects.

The strongest predictor of the variation, which operates consistently across the three dialects, is the type of main verb. Existentials occur with *no*-negation at categorical or near-categorical rates. HAVE and HAVE GOT also favour *no*-negation, but are not statistically distinct from one another. Lexical verbs including DO meanwhile tend not to occur with *no*-negation. Previous research has suggested that these effects are due to (i) existentials being stored and accessed whole (Bybee & Hopper 2001: 17) and (ii) BE and HAVE being higher frequency than lexical verbs, which leads to them retaining the oldest of the variants, *no*-negation, to the greatest extent (Tottie 1991b: 232). The propensity for existentials to take *no*-negation could have a frequency-based explanation since *there's* is considered a fixed phrase. However, the 'conserving' frequency effects posited to explain the other verb type effects fail to consider the syntactic distinction between the lexical and functional verbs. Under both Account 1 and

2, the tendency for lexical verbs to disfavour *no*-negation is anticipated due to their categorical position in the VP, where they interfere in the potential Agree relation between the negative operator in NegP and the indefinite (Account 1) or add to the cost of the movement of negation out of the indefinite DP to NegP (Account 2). Although it was not possible to run a mixed-effects logistic regression with negative concord as an application value due to its relatively low frequency, its patterning in the distributional analysis revealed that, like *not*-negation, it tends to occur with lexical verbs. This finding is contrary to Account 1 under which negative concord is expected to be dispreferred with lexical verbs, but lends further support to Account 2 in which there is structural similarity between *not*-negation and negative concord in contrast to *no*-negation. The fact that HAVE GOT tends to take *no*-negation is unexpected under both Account 1 and Account 2 assuming that it consists of an auxiliary (HAVE) and main verb (GOT). However, its status as a ‘semi-modal’ currently undergoing grammaticalisation in English may help to account for this finding (Quinn 2000).

A second significant factor affecting the choice of negative variant is discourse status. *No*-negation is most often used to introduce new information to the discourse, while *not*-negation is used more in discourse-old compared to discourse-new contexts. The robustness of this effect is ratified by the fact that it not only holds across dialects, but across verb types, in addition to the intrinsic properties of the verbs themselves. The variants also appear further specialised according to whether the discourse-old proposition referred to was originally positive or negative. Denials of explicit positive propositions or cancellations of implicit positive propositions tended to be expressed with *not*-negation. In contrast, repetitions of explicitly-stated negative propositions or assertions of negative inferences tend to feature *no*-negation. *Not*-negation and negative concord pattern alike in their frequency of use for these sets of functions. The functional distinction between these two variants on the one hand and *no*-negation on the other hand is consistent with Account 2 in which the latter is the only variant that has negative marking within the post-verbal indefinite DP, as opposed to overtly in NegP. With this structure, the specialisation of *no*-negation for making discourse-new information reflects the general tendency for new information to be introduced post-verbally (Ward & Birner 2003, 2008).

Since *not*-negation is reportedly increasing in frequency over time to the detriment of *no*-negation (Tottie 1991a: 462; Varela Pérez 2014), my analysis considered the effect of speaker

sex and age on the variation to examine the evidence for this ongoing change. The social distribution of variants in Tyneside is consistent with the proposed diachronic decline in *not*-negation and reflects patterns associated with changes from below (Labov 1982: 79), as it is the only community to display a decline in the frequency of *no*-negation in apparent-time, but the distribution is not significant. Glasgow was the only locale to have a significant effect of speaker age, but the patterns showed relative stability in the frequency of *no*-negation between the younger and older speakers with the key differences appearing to lie in these groups' respective rates of *not*-negation and negative concord. In terms of speaker sex, Tyneside is the only locale with a significant effect. Tyneside women prefer the newest variant, *not*-negation, whereas Tyneside men are more conservative and prefer the older of the two variants, *no*-negation. Tyneside also has the highest rate of *no*-negation overall. These different lines of evidence are consistent with the proposal that the change from *not*-negation to *no*-negation is less advanced in Tyneside than in the other two localities, in which social trends in the variation were less striking.

This investigation has demonstrated how incorporating syntactic theory into a quantitative, comparative sociolinguistic analysis of morpho-syntactic phenomena in vernacular speech corpora can uncover the linguistic and external factors that condition variation within and across regional varieties of English, to ascertain which constraints are part of a shared grammar and which are subject to geographical differences. Considering how the variants pattern according to core linguistic and discourse-pragmatic constraints has provided empirical evidence in favour of a syntactic account of the variation in which *not*-negation and negative concord share the same underlying structure while *no*-negation does not, as opposed to an account where all three variants are generated from the same structure. Investigation of the variable across other varieties of English, both within the British Isles and beyond, would be beneficial to corroborate the findings observed here and to identify further cross-varietal differences in grammars of English. Diachronic analysis of the variable, for example in corpora spanning several centuries, would also be valuable to gain more robust evidence for the previously-reported change from *no*-negation to *not*-negation.

Chapter 4. *Never*

4.1. Introduction

Never is prototypically a negative temporal adverb that expresses ‘universal quantification over time’ (Lucas & Willis 2012: 463), meaning “not on any occasion” (Cheshire 1985: 8; Smith 2001: 127). This type of *never* (which I label ‘Type 1’)⁴⁵ is equivalent to *not ever*, as shown in (66). *Never* can also function as a non-quantificational negator equivalent to *didn’t* (Cheshire 1982: 67–8; Edwards 1993: 227; Hughes *et al.* 2013: 29; Lucas & Willis 2012). In ‘Type 2’ contexts, non-quantificational *never* is a Standard English feature, used only where there was a specific “window of opportunity” in which an event could have occurred but did not (Lucas & Willis 2012), as shown in (67). In contrast, non-quantificational *never* in ‘Type 3’ contexts, sometimes called ‘punctual *never*’ (Palacios Martínez 2011: 21), is always non-standard (Lucas & Willis 2012: 460). It refers to a single point in time and means “not on one specific occasion” (Smith 2001: 127), as in (68).

(66) Type 1: *Never* with universal quantification over time

- a. I’ve **never** slept-walked (i.e. *in all her life*) [SM/135, Tyneside]
- b. I’ve **not ever** / **I haven’t ever** slept-walked

(67) Type 2: Non-quantificational *never* with a “window of opportunity”

- a. He **never** came into school (i.e. *that day*) [3F2, Glasgow]
- b. He **didn’t** come into school

(68) Type 3: Non-quantificational *never* as a generic negator

- a. Actually, I **never** had that coat when I was eleven [RM/512, Tyneside]
- b. Actually, I **didn’t** have that coat when I was eleven

Evidence from historical corpora examined by Lucas and Willis (2012) indicates that *never*’s original function was Type 1 and the form later developed the non-quantificational uses, firstly in Type 2 contexts and subsequently as a non-standard negator in Type 3 contexts. As

⁴⁵ In this chapter I use ‘Type 1’ etc. to refer to the context in which *never* occurs but also ‘Type 1 *never*’ etc. to refer to tokens of that kind.

non-quantificational *never* is semantically-equivalent to the standard *didn't*, this chapter investigates the variation between these two variants (in Type 2 and Type 3 contexts respectively) in synchronic dialect data to examine how their present-day distribution can shed light on the diachronic development of *never*.

Most reports of non-quantificational *never* do not distinguish between its use as a standard form in Type 2 contexts and a non-standard one in Type 3 contexts, though the two are acknowledged by Cheshire (1985, 1997) and outlined in detail by Lucas and Willis (2012). Non-quantificational *never* has nevertheless been reported as a widespread feature of *non-standard* varieties of English worldwide (Coupland 1988: 35; Anderwald 2002: 203; Kortmann & Szmrecsanyi 2004; Britain 2010; Melchers & Shaw 2011: 52–3; Hughes *et al.* 2013: 29; Szmrecsanyi 2013), which suggests that these observations pertain to its use in Type 3 contexts. Type 3 *never* has been reported as a feature of Northern English in general (Beal 2004a: 125), including Tyneside English (Beal 1993: 198; Beal & Corrigan 2005: 145; Beal *et al.* 2012: 58; Buchstaller & Corrigan 2015: 80) and Scottish English (Miller & Brown 1982; Miller 1993: 115; Smith 2001: 127–8), as well as many other varieties.⁴⁶

Given how often non-quantificational *never* is cited as a feature of Englishes worldwide, it is surprising how few studies have examined its linguistic distribution (see sections 4.2-4.3 for a more detailed review of these investigations). Qualitative studies include Cheshire (1985, 1997, 1998), who examines the semantic and discourse-pragmatic characteristics of *never* in Southern British English from a sociolinguistic perspective, and Lucas and Willis (2012), who explain the formal properties of *never* and its historical development. Lucas and Willis (2012) distinguish five types of *never* (Types 1-3 already mentioned, as well as Types 4-5 as defined in sections 4.2.4 and 4.2.5) on semantic, syntactic and historical grounds. They draw upon qualitative evidence primarily from the *Helsinki Corpus* (1500-1710), the *Corpus of Early English Correspondence Sampler* (1418-1680) and the *Oxford English Dictionary* (OED) for historical data, as well as the BNC, the *Linguistic Innovators Corpus* (LIC) and their own acceptability judgements for insights into its distribution in modern English. Quantitative

⁴⁶ Other varieties of English in which non-quantificational *never* has been reported include those spoken in Southern England (Cheshire 1982; Edwards 1993: 227; Stenström 1997: 140; Britain 2002: 25; Palacios Martínez 2011), Wales (Coupland 1988: 35), Ireland (Hickey 2005: 177, 2012: 101), USA (Labov 1972e; Cheshire 1985), Canada (Clarke 2010: 98), India (Schneider 2000) and Australia (Pawley 2008).

investigations of *never* are similarly scarce. Several have focused primarily on Type 1 *never* and its alternation with *not ever*, but there is little variation – speakers consistently use the *never* variant near-categorically (Tottie 1991b; Cheshire 1998: 34–5; Palacios Martínez 2011).⁴⁷ Others have elicited speakers’ acceptability judgements of *never* in different linguistic contexts (Cheshire *et al.* 1989; Cheshire 1985, 1997). Cheshire (1982) is the only previous quantitative analysis of the variation between non-quantificational *never* and *didn’t*, where she identified linguistic factors affecting the choice of variant.

In this chapter, I consolidate what we know from the literature on *never* to investigate the variation between non-quantificational *never* and *didn’t* in Type 2 and Type 3 contexts, using data from Glasgow, Tyneside and Salford. The research has two primary aims:

- (i) to establish the semantic and discourse-pragmatic factors determining speakers’ choice of *never* vs. *didn’t* in Type 2 and Type 3 contexts;
- (ii) to examine whether the linguistic and social distribution of *never* in Type 2 and Type 3 contexts in synchronic, cross-dialectal corpus data provides insight into the diachronic trajectory of *never* as it grammaticalises from Type 1 to Type 2 to Type 3 uses.

My investigation reveals that the linguistic constraints on non-quantificational *never* as a standard variant in Type 2 contexts still influence its usage in its newer, non-standard uses in Type 3 contexts. *Never*’s occurrence with achievement predicates in Type 2 contexts (by definition) is reflected in its higher frequency with these predicate types as opposed to any other in Type 3 contexts. My results show that as a non-quantificational negator, i.e. not expressing quantification over a period of time, *never* is frequently employed with predicates denoting bound as opposed to unbounded events. Results also suggest that as *never* has expanded its linguistic distribution and changed in meaning, it has expanded its repertoire of discourse-pragmatic functions. While Type 2 environments are demonstrably almost always

⁴⁷ Although Palacios Martínez (2011) also comments on the frequency of punctual *never* vs. other uses, this frequency was calculated as a percentage of all instances of the word *never*.

contexts where the speaker expresses counter-expectation, in Type 3 contexts *never* is associated with contradiction of a previously-stated proposition.

Section 4.2 describes the syntactic and semantic distribution of the different types of *never* that Lucas and Willis (2012) isolate. Section 4.3 synthesises previous accounts of *never*, beginning with a summary of its origin and historical development, followed by discussion of the linguistic and discourse-pragmatic factors that condition the variation between non-quantificational *never* and *didn't*. Section 4.4 defines the variables, circumscribes the variable contexts and explains how the dependent variable (non-quantificational *never* vs. *didn't*) was coded. Section 4.5 then outlines the choice and coding of the independent variables considered in the analysis. Section 4.6 presents the results of quantitative analysis of the *never* variation, which are discussed further in section 4.7.

4.2. Differentiating types of *never*

This section focuses on the three primary uses of *never* (Type 1: Universal quantification over time, Type 2: “window of opportunity”, and Type 3: Non-quantificational generic negator) as well as two more marginal functions (Type 4: Categorical denial and Type 5: Idiomatic uses) that Lucas and Willis (2012) identify. Although the dependent variable of concern in this chapter is non-quantificational *never* vs. *didn't* (in Type 2 and Type 3 contexts), outlining the linguistic characteristics of each type of *never* at the outset is important since all are thought to stem originally from Type 1 (Lucas & Willis 2012: 473). Differentiating the types of *never* is also essential for sorting and coding the data (see section 4.4).

4.2.1. Type 1: Universal quantification over time

The prototypical use of *never* is Type 1, which expresses universal quantification over time. This is defined as follows:

Given a (temporal) context C , a domain D (= the set of all units of time t contained within C) and a proposition p ; $never(p)$ is true iff for all units of time t within D , p is false at t . Or, equivalently, $never(p)$ is true iff there is no t within D such that p is true at t .

(Lucas & Willis 2012: 463)

Lucas and Willis (2012: 463) argue that this type of *never* necessarily addresses a ‘question under discussion’ in the sense of Roberts (1996), namely either (i) when is/was/will p (be) true? or (ii) how often is/was/will p (be) true? Question (i) is relevant when *never* quantifies over a non-iterable predicate, i.e. where there was ‘*some instant* (or longer stretch of time) at which p is true’ (Lucas & Willis 2012: 463), as in (69). Question (ii) is relevant for iterable predicates, i.e. where *never* ‘[denies] the assumption that the relevant proposition is true on multiple separate occasions within D ’ (Lucas & Willis 2012: 465), as in (70).

(69) Non-iterable predicate

- a. I’ve **never** learnt another language [Sally, Salford]
- b. The one graveyard that I will **never** forget is the German graveyard [MM/456, Tyneside]

(70) Iterable predicate

- a. we **never** really won anything (*over numerous netball tournaments*) [AS/149, Tyneside]
- b. It was like dead good our school, the fire alarm **never** went off or anything [3F2, Glasgow]

Appealing to Partee’s (1973) proposal that sentences with tense contain a temporal variable, Lucas and Willis (2012: 464) state that *never* ‘saturates this variable’ with non-iterable predicates, but not with iterable predicates. This accounts for the ungrammaticality that results from the use of temporal adverbials (e.g. *this year*, *yesterday*) with non-iterable predicates like those in (69), in contrast to their licensing in iterable predicates like (70) (Lucas & Willis 2012: 464).

4.2.2. *Type 2: Non-quantificational with “window of opportunity”*

Unlike Type 1 *never*, the Type 2 “window of opportunity” use of *never* does not quantify over time and is ‘equivalent to ordinary sentential negation’ (Lucas & Willis 2012: 466). Type 2 *never* is identifiable by its reference to a ‘temporally restricted “window of opportunity”, given or inferable in context, in which the relevant event could theoretically have taken place at any time but didn’t’ (Lucas & Willis 2012: 467). At the time of speaking, this window must be closed – hence, Type 2 *never* only occurs with the preterite tense (Lucas & Willis 2012: 467). Type 2 *never* is also limited to achievement predicates that refer to the completion of a specific task (Lucas & Willis 2012: 467-9), as explained further in section 4.4.3. The examples in (71) demonstrate some tokens of *never* in Type 2 contexts in my data.

- (71) a. But Nadine **never** got my message, she said [3F4, Glasgow]
b. **never** brought a biscuit, did she? [Moir, Salford]
c. Her Dad **never** came to parents’ night [NKYF2, Glasgow]

Although Type 2 *never* may seem similar to Type 1, if they were the same we would expect Type 2 *never* to be concerned with the ‘how often?’ question with iterable predicates, which is not the case (Lucas & Willis 2012: 466). For example, someone was not expected to receive a text message several times (71a), bring a biscuit several times (71b), or to go to parents’ evening several times (71c). In other words, the events are expected to occur only once within a given “window of opportunity”.

4.2.3. *Type 3: Non-quantificational generic negator*

Non-quantificational *never* in Type 3 contexts, like Type 2 *never*, is non-quantificational and marks sentential negation (Lucas & Willis 2012: 469). Only the linguistic context distinguishes Types 2 and 3. While Type 2 *never* is limited to achievement predicates with a “window of opportunity”, Type 3 is much less restricted in terms of the predicate types that it can occur with (Lucas & Willis 2012: 469). While *never* is standard in Type 2 contexts, it is non-standard in Type 3 contexts (Lucas & Willis 2012), as the examples in (72) illustrate.

- (72) a. I **never** worked here at the time [SM/84, Tyneside]

- b. Actually I **never** had that coat when I was eleven [RM/512, Tyneside]
- c. I **never** watched that last night [00-G2-m04, Glasgow]

Type 3 *never* is strongly associated with the preterite tense and considered equivalent to *didn't* (Labov 1972e; Cheshire 1982: 67–8; Edwards 1993: 227; Smith 2001: 128; Hughes *et al.* 2013: 29). Lucas and Willis (2012: 469–70) agree, but hypothesise that this could be because with other tenses *never* can be ambiguous between Type 1 (where it has a habitual interpretation) or Type 3 (where it has a non-quantificational interpretation), as illustrated in (73).

- (73) know what I'm saying you feel like you're the one . that's why I can **never** say that I'm Moroccan . I can **never** say it [*Linguistic Innovators Corpus*, 6127int036]

(Lucas & Willis 2012: 470)

Type 3 *never* can also occur in clause-final position with an elided VP (Lucas & Willis 2012: 470), as (74) shows. The licensing of *never* here may represent its reanalysis from a phrasal adverb to a head (Lucas & Willis 2012: 471).⁴⁸

- (74) 3F5: Alice did it.
3F2: No she **never**. [Glasgow]

Type 3 *never* has often been described as emphatic or at least potentially having an emphatic function (Beal 1993: 198; Hickey 2004: 524; Beal & Corrigan 2005: 145; Lucas & Willis 2012: 460; Buchstaller & Corrigan 2015: 80). However, this has not been examined empirically and it may vary across varieties as it is reportedly not emphatic in Scottish English (Miller 1993: 115, 2004: 51). There are also indications that Type 3 *never* can be used to explicitly deny propositions (e.g. *He never!* – Cheshire 1982: 68; *No I never!* – Coupland 1988: 35) or assumptions (Lucas & Willis 2012: 460).

⁴⁸ Lucas and Willis (2012: 471) appeal to Potsdam's (1997: 538) argument that *not* is a head and behaves similarly with elided VPs.

4.2.4. *Type 4: Categorical denial*

Type 4 *never* is not quantificational over time, but appears to quantify ‘over possible perspectives on a state of affairs’, often expressing surprise (Lucas & Willis 2012: 471). As (75) shows, speakers use it to categorically deny a proposition (Lucas & Willis 2012: 461). Type 4 *never* can be used with various tenses and predicate types, and is found in many varieties of English including Standard English (Lucas & Willis 2012: 471).

- (75) a. IC: my dad chased him and I was scared
JK: Oh **never**? [Tyneside]
b. That’s **never** a penalty! (Lucas & Willis 2012: 471)⁴⁹

4.2.5. *Type 5: Idiomatic uses*

The Type 5 group comprises idiomatic expressions with *never* that are found in English worldwide, where *never* is non-quantificational (Lucas & Willis 2012: 472). These include *never know* as in (76a) and the ‘fossilized expressions’ *never fear* and *never mind* as in (76b) (Lucas & Willis 2012: 472).

- (76) a. I **never** even actually knew that was true [00-G2-m01, Glasgow]
b. cannae even read English, **never** mind hieroglyphics [BB/929, Tyneside]

4.2.6. *Summary*

To conclude this section, Table 4.1 summarises the key properties of each of the five types of *never* that Lucas and Willis (2012) describe, including examples.

⁴⁹ This example is credited to a webpage which is no longer active, but there are many other instances online (e.g. <https://www.thesun.co.uk/archives/football/1105828/england-boss-roy-hodgson-i-may-be-a-dinosaur-but-thats-never-a-penalty/>).

Type	Standard English?	Properties	Example
Type 1: Universal quantification over time	Yes	<ul style="list-style-type: none"> • Equivalent to <i>not ever</i> • Means “on no occasion” 	we never really won anything [AS/149, Tyneside]
Type 2: Non-quantificational with “window of opportunity”	Yes	<ul style="list-style-type: none"> • Equivalent to <i>didn't</i> • Means “not” 	But Nadine never got my message, she said [3F4, Glasgow]
Type 3: Non-quantificational generic negator	No	<ul style="list-style-type: none"> • Equivalent to <i>didn't</i> • Means “not” 	Actually I never had that coat when I was eleven [RM/512, Tyneside]
Type 4: Categorical denial	Yes	<ul style="list-style-type: none"> • Quantification ‘over possible perspectives on a state of affairs’ (Lucas & Willis 2012: 471) • Expresses rejection and often surprise 	IC: my dad chased him and I was scared JK: Oh never ? [Tyneside]
Type 5: Idiomatic uses	Yes	<ul style="list-style-type: none"> • Expressions with <i>never know</i>, <i>never fear</i> and <i>never mind</i> 	I never even actually knew that was true [00-G2-m01, Glasgow]

Table 4.1: Summary of the properties of *never* (Types 1-5)

4.3. The diachronic and synchronic distribution of *never*

In this section, I outline the origin of the five types of *never* described in section 4.2 and how they developed diachronically in English (4.3.1), before drawing attention to semantic, syntactic and discourse-pragmatic factors that have been found to constrain the use of non-quantificational *never* in previous work (4.3.2).

4.3.1. *Origins and historical development of never*

As already noted, *never* first appeared in English with its Type 1 meaning before going on to develop other functions, which is consistent with cross-linguistic evidence showing that negative temporal adverbs often grammaticalise to become non-quantificational negators (see Lucas & Willis 2012: 473 *inter alia*). Type 1 has been used since Old English, as shown in (77), as were Type 5 uses (e.g. *never knew*), as in (78):

(77) swa þæt hi **naefre** ne mihton ne noldon syððan fram his willan gebugan
 so that they never not might nor not-wanted since from his will bend
 ‘so that they never were able or wanted after that to revolt from his will’
 (Ælfric’s *Catholic Homilies* I, 1 12.7)

(Traugott 1992: 194)

(78) Ne ic **naefre** git nyste thaet aenig other byrig us waere gehende.
 Nor I never yet NEG.knew that any other town us were.SUBJUNC near
 ‘I never knew before that any other town was near to us.’
 (Ælfric’s *Lives of Saints* 23, 542, De septem dormientibus)

(Ingham 2013: 144)

Type 4 *never* was the next to develop, first appearing in Middle English as in (79), but it was not used more widely until the 19th century (Lucas & Willis 2012: 479). Type 4 *never* most likely developed from Type 1 *never* because it is not restricted to specific types of predicate and it ‘does seem to retain an element of quantification – over perspectives on a situation – and it is not clear how this could have arisen out of a use of *never* as a straightforward negator’ (Lucas & Willis 2012: 479).

(79) Gogs woundes Tyb, my gammer has **neuer** lost her Neele?
 (William Stevenson, *Gammer Gurton’s Needle*, *Helsinki Corpus*, ceplay1b,
 1552-63)

(Lucas & Willis 2012: 479)

Type 2 *never* was first used a little later, in Early Modern English, as in (80).

(80) I wish you may rit to Dr. Hud about your trunk you left with him, for it **never** cam to
 Mester Busbey. (*Letters of Isaac Basire*, *CEECs*, 1661)

(Lucas & Willis 2012: 476)

While Type 1, Type 2 and Type 5 uses of *never* are all present in the Early Modern component of the *Helsinki Corpus* (1500-1710) and *Corpus of Early English Correspondence Sampler* (1418-1680), as well as one instance of Type 4 *never*, Type 3 does not appear at all

(Lucas & Willis 2012: 474-5). The data suggests that Type 3 *never* was not used until the mid-19th century and increased in frequency in the subsequent century (Lucas & Willis 2012: 476):

- (81) ‘Davy,’ said Marilla ominously, ‘did you throw that conch down *on purpose*?’ ‘No, I **never** did,’ whimpered Davy. (1909 L.M. Montgomery *Anne of Avonlea* xvii, OED, s. v. *never*)

The historical development of *never* leads Cheshire (1997: 70, 1998: 31) to suggest that *never*’s ‘expressive force’ as a universal temporal quantifier gradually reduced over time as it developed non-quantificational uses, in a change consistent with Jespersen’s Cycle (Jespersen 1917). Although this would lead one to predict that *never* would eventually become the primary negator in English, Cheshire (1997: 70, 1998: 31) suggests that this change was curtailed by prescriptivism. However, the instances of non-quantificational *never* that appear around the 19th century are Type 5 contexts which are acceptable in Standard English today, and there is little evidence that non-quantificational *never* was prescriptively commented on at that time (Lucas & Willis 2012: 474-6).

4.3.2. *Linguistic factors*

As my analysis focuses on non-quantificational *never* and its variation with the semantically-equivalent *didn’t*, this section outlines the factors which are likely to impact upon the variation, given insights from previous research.

The first of these factors is the length of the time period to which *never* relates, as Cheshire (1997) identified based on the results of her survey of acceptability judgements from university lecturers and students in the south of England. Sentences with Type 1 *never* (*Sally never eats meat; John has never been to Baghdad*) were judged highly acceptable, as expected given its status as a standard, prototypical use. The next most acceptable sentence was *You’ll never catch that train tonight*, with at least 81% of respondents in each group judging it as acceptable. Although this use of *never* appears to be non-quantificational, it ‘has escaped censure’ because of its future time reference (Cheshire 1997: 72). Non-quantificational uses of *never* in the preterite tense were much less acceptable. *Bother! I never*

let the cat out (Type 2) and *John never stole that car* (Type 3) displayed similar rates of acceptability (41-50%), but *John never went to school today* (Type 2) was ranked lower (20-25%). Cheshire (1997: 73) notes that in the latter sentence the past occasion is explicitly delimited by *today* and concludes from her results that speakers find *never* less acceptable when it refers to shorter periods of time. However, this claim appears to refer only to sentences in the preterite and with explicitly-delimited time periods. Otherwise, it is not clear why *You'll never catch that train tonight* received such high rates of acceptability, or how *John never went to school today* denotes a shorter time period (a day) than *John never stole that car* (which refers to a specific point in time). The effects of these factors cannot be disentangled from this small set of nine test sentences, some of which may have been judged less acceptable for reasons other than the inclusion of *never*. For example, Cheshire (1997: 72) acknowledges that 'the majority of the participants did not like the word *bother*' in *Bother! I never let the cat out*. Furthermore, the survey sample consists only of university-educated participants who may be especially biased by the norms of Standard English in making their judgements. Additional research is warranted to test whether these findings from reported usage marry with the distribution of *never* in actual language use, which I pursue in this chapter.

Another potential constraint on variation between *never* and *didn't* is ellipsis of the following VP. In Cheshire's (1997) survey, sentences featuring *never* in a clause-final position with an elided VP were judged as the least acceptable constructions with *never*: *You trod on my toe. – No I never!* (7-20%) and *John went to work today but I never* (0-1%). That said, in reports based on language production, these construction types are said to be 'typical of Broad Scots' (Miller & Brown 1982: 15) and were found to promote the use of *never* over *didn't* more than non-elliptical contexts in Reading English (Cheshire 1982: 68). These conflicting lines of evidence point to a discrepancy between speaker perceptions and production with respect to this construction type, again calling for quantitative analysis of the variation in non-standard spoken language.

4.4. The variable context and data extraction

As noted in section 4.1, the present investigation focuses on the non-quantificational uses of *never*, Type 2 ("window of opportunity") and Type 3 (generic sentential negator), to establish

the constraints on their use. Examining how *never* is distributed in synchronic data from different varieties of English provides insight into its diachronic path of grammaticalisation. To this end, I undertake quantitative analysis of a binary linguistic variable comprising non-quantificational *never* in alternation with its semantically-equivalent variant *didn't*, which is consistent with the definition of the variable in previous quantitative analysis (Cheshire 1982). Although Lucas and Willis (2012: 470) note the potential for *never* to be used in place of verbs other than *didn't* in Type 3 contexts (including with tenses other than the preterite), the relevant examples they find in their corpora are ambiguous between Type 1 and Type 3 uses (see section 4.2.3 for further details). Indeed, the consensus is that non-quantificational *never* is a preterite-tense negator equivalent to *didn't* (Cheshire 1982: 67–8; Edwards 1993: 227; Hughes *et al.* 2013: 29; Lucas & Willis 2012). This unites the Type 2 and Type 3 uses of *never* in meaning and differentiates them from Type 1, Type 4 and Type 5 (see section 4.2).⁵⁰

While my analysis concerns a single variable of non-quantificational *never* vs. *didn't* as in Cheshire (1982), my approach makes an additional distinction between the two contexts in which the variable operates:⁵¹ (i) Type 2 contexts, i.e. achievement predicates in the preterite tense with a “window of opportunity” where an event could have occurred but did not (in which *never* is a standard variant); and (ii) Type 3 contexts, i.e. predicates in the preterite tense where there is no “window of opportunity” but *never* nonetheless has a non-quantificational meaning (in which *never* is a non-standard variant). Separating these two contexts is essential for addressing the two primary research aims of this chapter, i.e. to establish the linguistic constraints on *never* and examine how it has grammaticalised from

⁵⁰ Cheshire (1998: 36) advocates analysing *never* as a single linguistic form that has varying time reference depending on its linguistic context, to ‘obtain a full picture of the way in which *never* functions in Present-Day English’. However, including all tokens of *never* in a quantitative variationist analysis of the kind I undertake in this chapter is untenable, because Type 1, Type 4 and Type 5 uses of *never* have distinctive meanings and are not semantically equivalent to Type 2/3 *never* and *didn't*. Nevertheless, I agree that one should consider the properties of *never* in other linguistic contexts, since *never*'s origin as a Type 1 universal quantifier likely impacts upon its distribution in Type 2 and Type 3 contexts as it undergoes grammaticalisation. Relevant qualitative insights relating to Type 1 *never* in particular are important in interpreting the results of my quantitative analysis of the variation between non-quantificational *never* and *didn't*.

⁵¹ Analysing a single dependent variable in separate linguistic contexts has been required in other variationist analyses of morpho-syntactic phenomena. For example, analyses of *was/were* variation typically separate the linguistic contexts where non-standard *was* can be used in place of Standard English *were* from those where non-standard *were* can be used in place of Standard English *was* (Tagliamonte 1998; Britain 2002).

Type 1 to Type 2 to Type 3 contexts. Conflating the two contexts would permit only a general overview of the variation, whereas distinguishing them reveals how the frequency of *never* and its distribution is affected by its status as a standard vs. non-standard variant, as well as providing a window into the potentially different linguistic constraints operating in each context.

To proceed with the analysis, tokens of the variable were extracted using *AntConc* (Anthony 2011) as before by searching for *never* and *didn't* as well as potential alternatives for the latter, i.e. *did not* and *didnae*. Any references to the *didn't* variant in this chapter therefore include tokens of *did not* and *didnae*. The set of extracted tokens were carefully scrutinised to isolate those within the definition of the variable, i.e. semantically-equivalent tokens of non-quantificational *never* and *didn't* in Type 2 or Type 3 contexts.⁵² Type 4 *never* (which occurred only once in my data) and Type 5 tokens, i.e. the expressions *never* KNOW, *never* FEAR and *never* MIND and their equivalents with *didn't* (including cases where these verbs had been elided, e.g. *Did you know that? I didn't*), were therefore discarded.

Differentiating Type 1, Type 2 and Type 3 tokens, on the other hand, was a more challenging task. Tokens of non-quantificational *never* and its variant *didn't* with an elided verb were necessarily Type 3 (see Lucas & Willis 2012: 471) and thus could be straightforwardly coded, but the remainder required much closer scrutiny. To differentiate the remaining Type 1, Type 2 and Type 3 tokens and ultimately exclude Type 1 since it is outside the variable context, I devised a decision tree comprising a series of questions to ask with respect to each token, shown in Figure 4.1 below. The questions in the decision tree were chosen for their ability to distinguish the different types of *never*, based on the properties outlined in Lucas and Willis

⁵² Three tokens of *never* seemed to potentially allow a Type 3 reading not equivalent to *didn't*. However, sentence (iii), as Lucas and Willis (2012: 470) found with their examples (see section 4.2.3), is ambiguous between a Type 1 and Type 3 reading. As these sentences occur only in Tyneside, are distinct from the other tokens and are infrequent overall, they were removed from the sample.

- (i) I've **never** really been to that many places if I'm honest [PS/243, Tyneside] (present perfect)
- (ii) I've **never** visited my favourite place yet [PS/243, Tyneside] (present perfect)
- (iii) the police could **never** find them [JS/169, Tyneside] (preterite modal)

(2012). Coding the tokens of *didn't* involved constructing the alternative with *never* (e.g. *he didn't go* vs. *he never went*) and considering it in conjunction with the decision tree just like the other *never* tokens. This procedure ensured that each token was considered independently and that all were subjected to the same coding process, minimising the subjectivity of the decision-making process (see Wagner *et al.* 2015, who took a similar approach to coding general extenders).

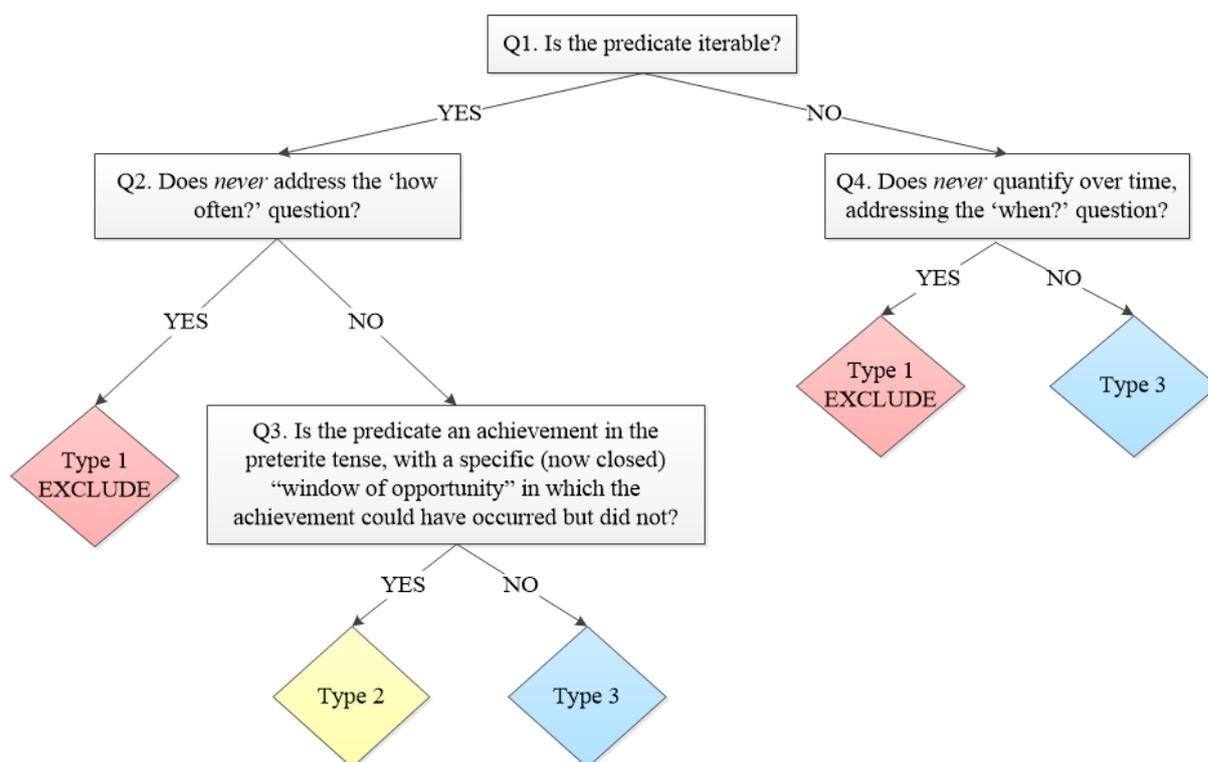


Figure 4.1 Decision tree for coding tokens

The following sections focus on each of the four questions in Figure 4.1 in turn to explain how they allow the different uses of *never* and *didn't* to be distinguished. Detailing the inclusion and exclusion of tokens in the variable and variable context(s) is an essential part of any quantitative variationist analysis (see Tagliamonte 2006: 86–8), but in the present case this becomes even more important given the multifunctional nature of *never*, the focus on a subset of uses (non-quantificational *never*, with its alternative *didn't*), and the necessity of classifying these into Type 2 and Type 3 contexts. The high level of detail in the remainder of this section serves to make my procedures transparent and promote replicability (see also Wagner *et al.* 2015), which is especially important since no previous quantitative study has investigated variation between non-quantificational *never* and *didn't* in separate Type 2 and Type 3 contexts.

4.4.1. Q1. *Is the predicate iterable?*

Non-iterable predicates do not allow the addition of phrases that explicitly restrict the temporal domain over which *never* applies (Lucas & Willis 2012: 464). The symbol # in (82b) indicates the impossibility of a Type 1 *iterable* reading in this context – rather, a Type 3 reading ensues.

- (82) a. I **never** left the trade [GB/127, Tyneside]
b. #I never left the trade last year

Iterable predicates, on the other hand, allow explicit restriction on the temporal domain that *never* operates over (Lucas & Willis 2012: 465), as in (83).

- (83) a. They **never** recognised shell-shock *in the war years* [GB/127, Tyneside]
b. I think he came in and left at break time, cause he **never** came into reg⁵³ (that day) [3F2, Glasgow]

4.4.2. Q2. *Does never address the ‘how often?’ question?*

Answering YES to Q1 entails that the predicate allows temporal restriction on the domain of *never*, as in (83) above. Q2 asks whether those sentences address the ‘how often?’ question, i.e. *how often was p true?* (since the tokens are in the preterite tense). Example (83a) above addresses this question, specifically *how often did they recognise shell-shock in the war years?* Following Figure 4.1, example (83a) must be an example of Type 1 *never* because there were multiple opportunities for shell-shock to be recognised but it never was. Example (83b), on the other hand, does not address the ‘how often?’ question: we do not expect the referent in this sentence to come into one single registration period at school multiple times. Examples (83b) therefore must be tested further with Q3.

⁵³ ‘Reg’ is short for ‘registration period’.

4.4.3. Q3. Is the predicate an achievement in the preterite tense, with a specific (now closed) “window of opportunity” in which the achievement could have occurred but did not?

Type 2 contexts obligatorily feature an achievement predicate in the preterite tense that depicts a closed “window of opportunity”, in which an event could have taken place but did not (Lucas & Willis 2012: 466). If a token meets these conditions (i.e. YES is the answer to Q3), it is a Type 2 token. If not (i.e. NO is the answer to Q3), it is a Type 3 token.

The tokens were therefore coded for the lexical aspect of their predicate – that is, ‘the inherent temporal structure of a situation’ (Croft 2012: 31) – according to Vendler’s (1957) classic four-way distinction between stative, activity, accomplishment and achievement predicate types (as explained below). Although at this point we are primarily concerned with whether the predicate is an achievement or not, all four categories are defined here, both because comparing them gives a clearer understanding of the properties of achievements and because the four categories need to be coded regardless since lexical aspect is an independent factor in my quantitative analysis (see section 4.5.2).⁵⁴

Stative, activity and accomplishment vs. achievement

Stative predicates denote a constant state over time (Vendler 1957: 147; Croft 2012: 34) and cannot be used to answer the question ‘what happened?’ (Miller 2002: 144). They prototypically do not take the progressive form, e.g. **I’m having a car* (Comrie 1976: 35).⁵⁵ Stative predicates include those with the verbs *need, like, live, know* and *understand*, as well as those in (84).

⁵⁴ The sentences provided henceforth as examples of the stative, activity or accomplishment categories are necessarily Type 3, because these allowed explicit restriction on the temporal domain (Q1 YES), do not address the ‘how often?’ question (Q2 NO) and are not achievements (Q3 NO). The examples in the achievement category are either Type 2 or Type 3 since there are further restrictions on Type 2 uses that the remainder of the section will address.

⁵⁵ Stative predicates can occasionally occur in the progressive but the extent to which this is possible depends on the semantics of the verb, e.g. ‘mental verbs’ (e.g. *wonder, hope*) are the most likely candidates (Römer 2005: 116–7).

- (84) a. She **didnae** want me to leave [4F5, Glasgow]
 b. every piece of er luggage that (.) **didn't** fit in the passenger compartment
 [Sam, Salford]
 c. Actually I **never** had that coat when I was eleven [RM/512, Tyneside]

Activities, on the other hand, are dynamic events that proceed in the same way over an unbounded period of time (Vendler 1957: 146; Croft 2012: 34). They can occur in the progressive (e.g. *I'm walking*) and can be used with adverbials such as *for hours* in the preterite tense (Miller 2002: 144–5). Verbs that denote activities include *walk, talk, swim, sing* and *argue* and those in (85).

- (85) a. They **didn't** trek me round [MP/158, Tyneside]
 b. I **didn't** even cry or nowt [SM/84, Tyneside]

Like activities, accomplishments are dynamic events, but the latter are bounded and thus occupy a defined period of time (Vendler 1957: 149; Miller 2002: 146). They 'lead to a 'natural' endpoint such as arriving at the other side of the street or the end of the book' (Croft 2012: 34–5). These predicates can occur in the progressive (e.g. *I'm painting a picture*) and have 'an activity phase and then a closing phase' (Miller 2002: 145), such as watching a programme (86a), building something (86b), or organising an event (86c).

- (86) a. I **never** watched that last night [00-G2-m04, Glasgow]
 b. No you **didn't** build it! [SG/121, Tyneside]
 c. I **didn't** organise that one [SB/151, Tyneside]

Achievement predicates are similar to accomplishments in that they too are dynamic events that occur within a bounded period of time, but for achievements this period is considered an 'instant' (Vendler 1957: 149; Miller 2002: 145–6; Croft 2012: 34). Achievements have therefore been construed as having 'no time elapsing between the beginning and the end of the event; the beginning and the end occur at the same time' (MacDonald 2008: 78). Examples of verbs which typically form achievement predicates are *ask, take, go, hit* and those in (87).

- (87) a. I'll tell her you **never** got it [a text], basically [00-G1-m03, Glasgow]
 b. we **didn't** leave Blackpool til (.) oh, it was well gone 10 o'clock [Deborah, Salford]
 c. I **didn't** flinch [BB/530, Tyneside]

Table 4.2 summarises the characteristics of these four predicate types:

Lexical aspect (predicate type)	Is it an event?	Does it persist over time?	Does it have an inherent temporal boundary?
Stative	NO	YES	NO
Activity	YES	YES	NO
Accomplishment	YES	YES	YES
Achievement	YES	NO	YES

Table 4.2: Summary of lexical aspect categories (table adapted from Miller 2002: 146)

Achievement tokens must be examined further because only those achievements which could have taken place in a specific “window of opportunity” can be Type 2 tokens.

Achievements that could have taken place in a (now closed) specific “window of opportunity”

Lucas and Willis (2012: 468) state that achievements do not permit Type 2 *never* ‘if the predicate refers to some chance event’, which they exemplify with (88). The instances of *never* in (88a) and (88b) are Type 1 because they allow temporal restriction (YES to Q1) and address the ‘how often?’ question (YES to Q2), i.e. she did not on any occasion forget to get the hen-food. As their example with *yesterday* in (88c) shows, a Type 2 reading is not possible. It is not clear, however, what is meant by ‘chance event’. Achievements with verbs of perception such as *realise* (89a) and *hear* (89b) are likely candidates for chance events because a subject does not intend to realise or hear something – just as with *forget* in (88). *Realise* and *hear* therefore are not expected to allow Type 2 *never*, but as (89a) and (89b) show, this interpretation is available. I therefore propose that Lucas and Willis’ (2012) condition that Type 2 achievements must be ‘non-chance’ is not strictly necessary and the reason why *to forget to* prohibited Type 2 *never* is because of another property, e.g. the fact that it is a negative-implicative predicate.⁵⁶

⁵⁶ *Forgot to* negates its complement, making it false. When it is marked as negative, e.g. *never forgot to* or *didn't forget to*, the complement is true. This behaviour distinguishes *to forget to*

- (88) a. She **never** forgot to get the hen-food (*British National Corpus*, ABX 2961)
 b. She never forgot to get the hen-food last year.
 c. #She never forgot to get the hen-food yesterday.
- (89) a. I thought I was clear to go, but [in that minute] I **didn't** realise I had put it in third gear [SM/135, Tyneside]
 b. We **never** heard it [a taxi] pulling in so we're all sitting there [NKYF3, Glasgow]

An additional restriction on Type 2 tokens is that the achievement must relate to 'the completion of a specific task, not merely to some process coming to an end and resulting in one of several possible outcomes', like with Lucas and Willis' (2012: 468) example *won as much as half of the popular vote* in (90). Examples of this type in my data similarly do not allow a Type 2 reading but are interpreted as Type 3, as (91) demonstrates.

- (90) a. (While they existed,) the party **never** won as much as half of the popular vote.
 b. ...over the 1950s the Tories never won as much as half of the popular vote.
 (*British National Corpus*, FB5 790)
 c. #In yesterday's election the Tories never won as much as half of the popular vote.
- (91) me and our Vanessa won everything and it **didn't** gan down very well with the locals [GB/127, Tyneside]

A final stipulation to characterise a token as 'Type 2' is that there must have been a specific "window of opportunity" where an achievement could have occurred but did not, which was closed at the time of speaking (Lucas & Willis 2012: 467). The tokens in (92) are Type 3 rather than Type 2 because although they depict achievements in the preterite, they do not refer to a specific closed "window of opportunity".

- (92) a. I **didn't** close the lid properly [BB/929, Tyneside]
Achievement did occur – BB/929 closed the lid, just not properly

and other negative-implicative predicates (e.g. *to fail to*) from 'positive-implicative predicates', where affirmative verbs have true complements (e.g. *he started to play*) and negative-marking on the verb results in a false complement (e.g. *he didn't start to play*) (see Schulz 2003: 33).

b. my mum **didn't** finish till 4 [Rebecca, Salford]

Achievement did occur – Rebecca's mum did finish, just not until 4pm

c. I **never** said that [SM/84, Tyneside]

Achievement did not occur, but there was no specific "window of opportunity" – SM/84 explicitly denies a claim that they said something

I have now reached the end of the trail of questions that leads from a YES response to Q1 in Figure 4.1. A NO response to Q1 necessitates asking Q4, as follows.

4.4.4. Q4. Does **never** quantify over time, addressing the 'when?' question?

The tokens that Q4 is relevant to do not permit explicit restriction of the temporal domain over which *never* applies (NO to Q1). I now ask whether these quantify over time and address the question of 'when was *p* true?' (Lucas & Willis 2012: 463), as shown in (93) for YES and (94) for NO.

(93) YES – *never* quantifies over time, addressing the 'when?' question = Type 1

a. yous **never** finished yours did you? [JS/221, Tyneside]

b. And he **never** told Lucy, to this day [MD/52, Tyneside]

(94) NO – *never* does not quantify over time (e.g. refers to a specific point in time) and does not address the 'when?' question = Type 3

a. the saying 'Mackem' (.) actually **didn't** come from football [SG/121, Tyneside]

b. I was telling Mary about it today but she **didnae** think it was funny [3F2, Glasgow]

These questions from Figure 4.1 allow the majority of tokens to be categorised into Type 2 and Type 3 groups, and Type 1 tokens excluded. However, some tokens are more difficult to classify, as explained in the following section.

4.4.5. *Ambiguous tokens*

In certain contexts, it is not clear whether the speaker refers to a single point in time (a Type 3 reading) or multiple occasions (a Type 1 reading). In relation to Q1, although there is a strong association between stative predicates and non-iterability (Lucas and Willis 2012: 464), some statives can have an iterable reading, e.g. where disliking someone (95) or living with someone (96) may have been true on multiple *separate* occasions over a period of time.

(95) a. But I **never** disliked him. [Joshua, Salford]

b. #But I never disliked him last year.

(96) a. we **never** lived with my Dad [PS/243, Tyneside]

b. #we never lived with my Dad last year

Similarly, some iterable predicates are ambiguous as to whether tokens address the question ‘how often was *p* true?’ or not. For example, in (97) below, Abbey may be referring to a single Christmas (Type 3) or several (Type 1).

(97) Sarah: See, if we had our own place, to save arguments, I’d have Christmas dinner at my house.

Abbey: Yeah. We **didn’t** even do that though when we had the flat. [Salford]

Ambiguities of this kind were often resolved by considering the discourse context of the token and asking whether it was more likely that the sentence addresses *how often was p true?* (Q2) or *when was p true?* (Q4), proceeding from there to examine the evidence in favour of one particular reading or another. Where the ambiguity could not be satisfactorily resolved in this way, the token had to be excluded from the sample.

4.4.6. *Summary of coding procedure for dependent variables*

To demonstrate the coding procedure from Figure 4.1, Table 4.3 features five tokens of *never/didn’t* from my data and shows the process involved in deciding whether they should be excluded (Type 1) or belong to either the Type 2 or Type 3 variable contexts. These examples were selected specifically to illustrate all possible outcomes of Q1-4. The final number of

tokens is 97 for the Type 2 context (Glasgow=36; Tyneside =34; Salford=27) and 235 for the Type 3 context (Glasgow=57; Tyneside=117; Salford=61).

	I didn't do any dating at school [IC, Tyneside]	it didn't turn up [Kathleen, Salford]	I never watched that last night [00-G2-m04, Glasgow]	when we never used to be able to go out [JS/221, Tyneside]	they didnae have any shoes on [NKYF4, Glasgow]
Q1. Is the predicate iterable?	YES (Go to Q2)	YES (Go to Q2)	YES (Go to Q2)	NO (Go to Q4)	NO (Go to Q4)
Q2. Does <i>never</i> address the 'how often?' question?	YES (=Type 1)	NO (Go to Q3)	NO (Go to Q3)	--	--
Q3. Is the predicate an achievement in the preterite tense, with a specific (now closed) "window of opportunity" in which the achievement could have occurred once but did not occur?	--	YES (=Type 2)	NO (=Type 3)	--	--
Q4. Does <i>never</i> quantify over time, addressing the 'when?' question?	--	--	--	YES (=Type 1)	NO (=Type 3)

Table 4.3: Demonstration of coding procedure with example tokens

4.5. Coding

The tokens retained in my final token sample were coded for a series of linguistic factors which, based on previous research (see sections 4.2 and 4.3), were hypothesised to affect the choice of *never* versus *didn't* in Type 2 or Type 3 contexts. External factors that could correlate with the variation to reflect ongoing linguistic change were also coded. This section explains these coding procedures.

4.5.1. *Dependent variable*

As described in section 4.4, my analysis consists of a binary dependent variable comprising non-quantificational *never* and its semantically-equivalent variant *didn't*, but distinguishes between two variable contexts: (i) Type 2: achievement predicates in the preterite tense with a “window of opportunity” where an event could have occurred but did not (in which *never* is a standard variant); and (ii) Type 3: predicates in the preterite tense where there is no “window of opportunity” but *never* nonetheless has a non-quantificational meaning (in which *never* is a non-standard variant).

4.5.2. *Lexical aspect*

To code the dependent variable, it was necessary to establish the lexical aspect of the predicate (see section 4.4). Type 2 tokens are necessarily achievements, but Type 3 tokens can have stative, activity, accomplishment or achievement predicates. Given the temporal development of Type 2 *never* into Type 3 *never*, I hypothesise that in Type 3 contexts *never* (as opposed to *didn't*) will be used at higher frequencies in achievement predicates compared to other predicate types. A comprehensive account of how lexical aspect was coded is given in section 4.4.3, but the summary of categories is presented again here for ease of reference. Two tokens were ambiguous between two categories and are therefore excluded from analyses concerning lexical aspect but included in all others.

Lexical aspect (predicate type)	Is it an event?	Does it persist over time?	Does it have an inherent temporal boundary?
Stative	NO	YES	NO
Activity	YES	YES	NO
Accomplishment	YES	YES	YES
Achievement	YES	NO	YES

Table 4.4: Summary of lexical aspect categories (table adapted from Miller 2002: 146)

4.5.3. Length of the temporal window

In using non-quantificational *never*, speakers invite the hearer to assume the ‘widest possible time span’ (Cheshire 1985: 15) and, as noted in section 4.3.2, it is reportedly less acceptable when it refers to a shorter timeframe (Cheshire 1997). I therefore hypothesise that the longer the “window of opportunity” in Type 2 contexts, the more likely speakers are to use *never* as opposed to *didn’t*. To explore this possibility, the independent variable of the length of the temporal window was coded according to the seven categories in Table 4.5.

Length of the temporal window	Details	Example
Seconds	At least 1 second but less than 1 minute	((<i>talking about the immediate aftermath of a dog bite</i>)) I didn’t even feel it [SM/84, Tyneside]
Minutes	At least 1 minute but less than 1 hour	Never brought a biscuit, did she? @ [Moira, Salford]
Hours	At least 1 hour but less than 12 hours	He never came into school [3F2, Glasgow]
Days	At least 1 day but less than 1 week	Then they was charged (.) cause it didn’t turn up [Kathleen, Salford]
Weeks	At least 1 week but less than 1 year	((<i>after talking about seeing the actor Johnny Depp in France ‘the other week’</i>)) Mm-mm yeah (..) didn’t tell you that one, did I? [MD/59, Tyneside]
Years	Several years	((<i>referring to rounders</i>)) I’m sorry that (.) I never took it up after school [Gail, Salford]
Ambiguous	A temporal window exists, but it is not clear how long it is	But I didn’t get a report on that [Helen, Salford]

Table 4.5: Coding schema for length of the temporal window

Sentences in my data rarely featured any explicit reference to the length of the “window of opportunity”, e.g. adverbs of the type Cheshire (1997) tested (see section 4.3.2). Nevertheless, the discourse context was usually sufficiently informative in this regard. For example, the sentence *didn't tell you that one, did I?* in the ‘weeks’ category in Table 4.5 does not in isolation suggest that the speaker saw the actor Johnny Depp at least one week ago. However, the speaker had previously said that she ‘bumped into Johnny Depp in France the other week’, making it clear that the “window of opportunity” for the speaker to tell the hearer her story was ‘weeks’. Tokens that were ambiguous between the ‘minutes’ and ‘hours’ category (N=13) were coded as ‘minutes or hours’. With another set of 13 tokens, a “window of opportunity” existed but it was not clear how long this window was. For example, the sentence *I didn't get a report on that* in its discourse context could refer to a time period of hours, days or weeks. Tokens of this kind were coded as ‘ambiguous’.

4.5.4. Discourse function

As noted in section 4.2.3, non-quantificational uses of *never*, especially in Type 3 contexts, are said to have an ‘emphatic’ function, either variably or in general (Beal 1993: 198; Hickey 2004: 524; Beal & Corrigan 2005: 145; Lucas & Willis 2012: 460; Buchstaller & Corrigan 2015: 80). Emphasis can be defined as ‘the exceptional force, intensity or otherwise unusual form of expression [...] which serves to indicate or attract attention to special meaning, importance, or prominence’ (Lauerbach 2011: 135). This emphatic quality of *never* has been characterised as overstatement (Cheshire 1997: 75), negating an assumption evoked by prior discourse (Lucas & Willis 2012: 460) and negating an explicit assertion (Coupland 1988: 35). The latter two, which I label ‘counter-expectations’ and ‘contradictions’ respectively, could together be categorised as expressions of ‘disclaim’, whereby ‘some prior utterance or some alternative position is invoked so as to be directly rejected, replaced or held to be unsustainable’ (Martin & White 2005: 118).

Since the previous reports of *never* used for emphasis are based on qualitative observations of speech and/or intuitions, I aim to test these claims quantitatively. To investigate non-quantificational *never*'s correlates with discourse function, I coded the tokens of *never* and *didn't* into three categories: contradictions, counter-expectations and no-counter-expectations. Given the aforementioned associations between non-quantificational *never* and emphasis, my

hypothesis is that when a speaker explicitly contradicts a previous speaker's proposition ('contradictions') or expresses a negative proposition that was expected to be true ('counter-expectations'), *never* will be used more frequently than in contexts where there was no prior expectation as to the truth/falsity of the proposition or the expectation was met ('no-counter-expectations'). This follows from contradictions and counter-expectations being more pragmatically-marked than no-counter-expectation contexts, since the speaker indicates a contrast between what they say and what was previously said or assumed. No previous work has identified whether this emphatic quality applies equally to *never* in Type 2 and Type 3 contexts, which I will investigate.

Table 4.6 summarises the three functions and their definitions. The second column depicts all of the propositions as false, since the tokens themselves are negative. The final column describes the context in which each function is found, explained further in the remainder of this section. A small number of cases were ambiguous between these categories (N=3) and henceforth are excluded from analyses focusing on this predictor.

Function	Speaker's proposition	Context
Contradiction	p is false	Explicit contradiction of another speaker's previous overt assertion that p was true
Counter-expectation	p is false	Expectation of speaker/hearer/subject/society was that p would be true
No counter-expectation	p is false	Expectation of speaker/hearer/subject/society was that p was false or there were no prior expectations about the truth/falsity of p

Table 4.6: Coding schema for discourse function

Contradictions

Contradictions are similar to "denials of an antecedent proposition" from the function coding in Chapter 3, where 'the negative proposition denies an earlier proposition that was explicitly stated in the discourse' (Wallage 2013: 5). However, contradictions must meet an additional criterion. Having two propositions in contradiction with one another results in 'exclusion', i.e.

one must be true and the other false (see Frawley 1992: 28).⁵⁷ For example, if Speaker A states *Jack has seen all of Shakespeare's plays* and Speaker B replies *no he hasn't*, the second utterance constitutes a denial but not a contradiction. This is because *no he hasn't* only negates Speaker A's proposition and we do not know how many of Shakespeare's plays Speaker B thinks that Jack has read – it could be any number of plays from every play except one, down to none. Under my definition of contradictions, Speaker A's proposition must be a declarative statement that is explicitly refuted by Speaker B's proposition and these must exhaust all of the possibilities, as the examples in (98) illustrate.

(98) a. 00-G1-m02: (laughs) you just done it

00-G1-m01: No I **never**

[Glasgow]

b. PM/85: went into shock

SM/84: and passed out

PM/85: started panicking and all that. I **didn't** pass out, I just started panicking

[Tyneside]

⁵⁷ Tokens which occurred in response to a *yes-no* question were categorised into the 'no counter-expectation' category rather than the 'contradiction' category. For example, in (i) below, although *having something like Scrabble* and *not having something like Scrabble* exhaust the possibilities, the interviewer did not overtly *assert* the truth of the underlying proposition, so CW/123's response cannot be a contradiction:

(i) Interviewer: Did you have anything like Scrabble in your days, in your childhood?

CW/123: I **didn't**.

[Tyneside]

Open *yes-no* questions have an open polarity variable that requires a value (affirmative or negative) that the response to the question provides (Holmberg 2013, 2016). In Chapter 3, the tokens of *not*-negation, *no*-negation and negative concord that appeared in response to *yes-no* questions were coded as 'denials of antecedent propositions' because this captured the fact that they explicitly deny a discourse-old proposition that was 'directly activated by the content of the question' (Schwenter 2005: 1438).

Counter-expectation

Tokens that express ‘counter-expectation’ feature a proposition that was expected to be true but was actually false. The prior expectation was one held by the speaker, a hearer, a third-party referenced as the subject in the proposition, or is reasonably assumed to be held by society in general. These expectations can arise based on the preceding conversation in a given recording, the knowledge of the speaker(s), or general world knowledge (see Ocampo 1995: 438). For example, in (99a) the falsity of the proposition is unexpected to the speaker (and potentially to other parties as well – see the use of *us*). The utterance is contrary to the *hearer’s* expectation in (99b) – MS/321 addresses the assumption that she would have watched television as a child. In (99c), there is an assumption based on our knowledge of human instinct that someone would have a reflex reaction when a pan is unexpectedly dropped behind them.

- (99) a. my cousins were supposed to be meeting us at 4, and they **didn’t** turn up til 7
[Rebecca, Salford]
- b. Fieldworker: We were talking about the TV as you said before, so can you still remember any TV programmes you used to watch?
MS/321: Well, not when I was a child, because we **didn’t** get it until I was married. [Tyneside]
- c. Well my Mam dropped a pan behind us ((*me*)) and I **didn’t** flinch
[BB/530, Tyneside]

No counter-expectation

Tokens categorised as ‘no counter-expectation’ are those where *p* was expected to be false or there was no prior expectation about the truth/falsity of *p*. In (100a), the interviewee’s use of *didn’t* confirms the fieldworker’s expectation based on the prior discourse that he and his brother (also participating in the interview) did not get on well when they were younger. Thus, there is no counter-expectation – the negative expectation is met with a negative assertion. In (100b), Moira’s utterance *that’s why I never went for a tall man* does not evoke

any prior expectation or assumption that she would “go for a tall man” but stands alone as an unanticipated statement.

(100) a. Fieldworker: um, right so y- you said you didn't get on well particularly when you were younger er

JS/169: No, we **didn't**.

[Tyneside]

b. Janet: So you don't like getting in the lift on your own?

Moira: No, don't do lifts, or heights.

Janet: Oh

Moira: That's why I **never** went for a tall man @

[Salford]

4.5.5. *Locality, speaker age and speaker sex*

As before, three external variables were considered: locality, speaker age, and speaker sex. Locality was coded as Tyneside, Glasgow or Salford. Speaker age comprised two groups of younger (<27 years of age) vs. older speakers (38 years old and over) as described in Chapter 2, for apparent-time analyses (Bailey *et al.* 1991). Speaker sex was coded as male vs. female and used to examine whether any differentiation in the frequency of variants between the two suggests ongoing change.

4.6. **Results of quantitative analysis**

This section presents the results of my quantitative analysis of the variation between non-quantificational *never* and *didn't* in Glasgow, Tyneside and Salford. The distribution of variants is presented in relation to the Type 2 and Type 3 variable contexts. I begin with the overall distribution of the variants per locality, followed by investigation of the linguistic and external which were hypothesised to condition the choice of variant.

4.6.1. Overall distribution

The overall frequency of *never* and *didn't* in Type 2 and Type 3 contexts, for each locality, is given in Figure 4.2. The presence of non-quantificational *never* in all three varieties reflects its status as a supra-local feature of English (Britain 2010; Szmrecsanyi 2013: 70). The status of *never* as a non-standard variant in Type 3 contexts has repercussions for its relative frequency, which is much lower than in Type 2 contexts where it is a standard form. Nevertheless, there are clear geographical differences in the rates of use for *never* which are highly significant for both the Type 2 ($\chi^2=22.428$, d.f.=2, $p<0.001$) and Type 3 contexts ($\chi^2=20.509$, d.f.=2, $p<0.001$). In Type 2 contexts, the relative frequency of *never* increases from the southernmost community (Salford) through to the northernmost (Glasgow), but only in Glasgow is *never* the majority variant. Glasgow speakers also use *never* as a non-standard negator (i.e. Type 3) more than speakers from Tyneside and Salford, where it is a rare occurrence.

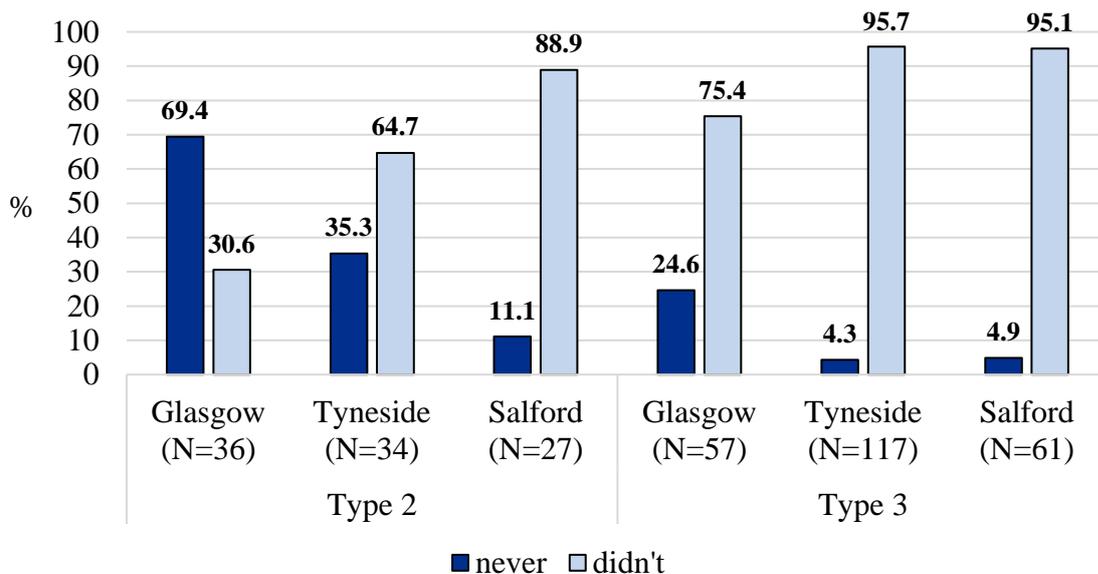


Figure 4.2: Overall distribution of variants in Type 2 and Type 3 contexts

The ubiquitous nature of certain features in Englishes around the world sometimes leads to the assumption that these features pattern on social levels rather than regionally (Coupland 1988: 35). However, these results show that there are distinctive geographical differences in the relative frequency of non-quantificational *never*. Prior observations that non-quantificational *never* ‘appears to be spreading in Broad Scots’ (Miller & Brown 1982: 15),

where it is ‘the normal negative with past tense verbs’ (Miller 1993: 115), indicate an association between the use of this feature and Scottish varieties of English in particular. Although I make no claims as to the position of Glasgow English on the continuum of ‘Broad Scots’ to ‘Standard Scottish English’ (see Chapter 2, 2.2.1), the fact that non-quantificational *never* is more frequent in Glasgow than the other two locales is consistent with these previous observations.

4.6.2. Lexical aspect

Never in Type 2 contexts by definition occurs with an achievement predicate and is the predecessor of *never* as used in Type 3 contexts, where it can occur with a much wider range of predicates (Lucas & Willis 2012). I therefore hypothesised in section 4.5.2 that in Type 3 contexts, *never* would be more likely to occur with achievement predicates than other predicate types. The results in Figure 4.3, showing the relative frequency of *never* according to predicate types in Type 3 contexts, confirms that this is indeed the case. A chi-squared value could not be calculated for the distribution due to the low number of tokens per cell for activity predicates, but when accomplishment and activity predicates are collapsed into a single group (justifiable on the basis that they are “non-achievement dynamic predicates”), it is significant ($\chi^2=8.122$, d.f.=2, $p<0.05$).

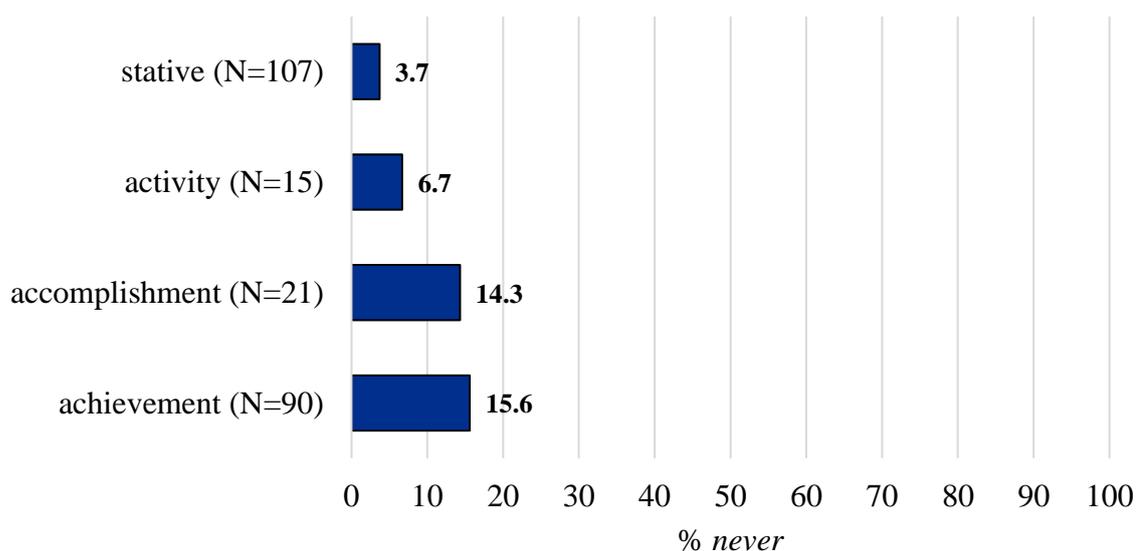


Figure 4.3: Relative frequency of Type 3 *never* (vs. *didn't*) according to lexical aspect

The fact that the highest frequencies of Type 3 *never* are reserved for achievements reflects *never*'s earlier roots in Type 2 contexts, which inherently have achievement predicates. The older meanings and distribution of *never* are thus reflected in its newer uses, demonstrating persistence, a key principle of grammaticalisation (Hopper 1991: 22). The fact that accomplishments promote the use of *never* only slightly less than achievements is no surprise given that these predicate types have similar semantics: both depict dynamic events that take place in a bounded period of time (Vendler 1957: 149). In contrast, *never* is least likely to occur in the temporally unbounded predicate types: activities and statives. The semantics of non-quantificational *never* as a 'punctual' negator referring to a specific point in time (Smith 2001: 127) are therefore more compatible with predicate types that similarly refer to single instants (achievements) or events with an inherent boundary (accomplishments), rather than unbounded events.

Figure 4.4 presents the results of this factor in each community to test whether the above trends pertain (excluding predicate types that occurred less than 10 times in each community).⁵⁸ Figure 4.4 reveals that, as before, *never* is more likely to be chosen over *didn't* in achievement predicates than in other predicate types, most markedly in Glasgow. There is striking similarity between the frequency of *never* in Type 3 achievement predicates in Figure 4.4 and its frequency in Type 2 (necessarily achievement) predicates displayed in Figure 4.2, section 4.6.1. These frequencies of *never* in each context are as follows: 69.4% (Type 2) and 60.7% (Type 3) for Glasgow, 35.3% (Type 2) and 20.5% (Type 3) for Tyneside, 11.1% (Type 2) and 8.6% (Type 3) for Salford. Speakers therefore select *never* at a similar rate in achievement predicates regardless of whether it is in a Type 2 or Type 3 context (indeed, chi-squares were not significant for Glasgow and Tyneside, and non-calculable for Salford due to the low number of *never* tokens). As such, the non-standardness of Type 3 *never* appears to be somewhat neutralised with achievement predicates, as *never*'s rate of selection does not reduce significantly between Type 2 and Type 3 contexts. This neutralisation of structure and meaning in discourse is 'the fundamental discursive mechanism of (nonphonological) variation and change' (Sankoff 1988: 153). Just as Figure 4.3 showed earlier, other predicate types are less likely to take the *never* variant.

⁵⁸ The excluded predicate types were:
 Glasgow: accomplishments (N=4, 75% *never*) and activities (N=1, *didn't*);
 Tyneside: ambiguous (N=2);
 Salford: accomplishments (N=2, both *didn't*) and activities (N=1, *didn't*).

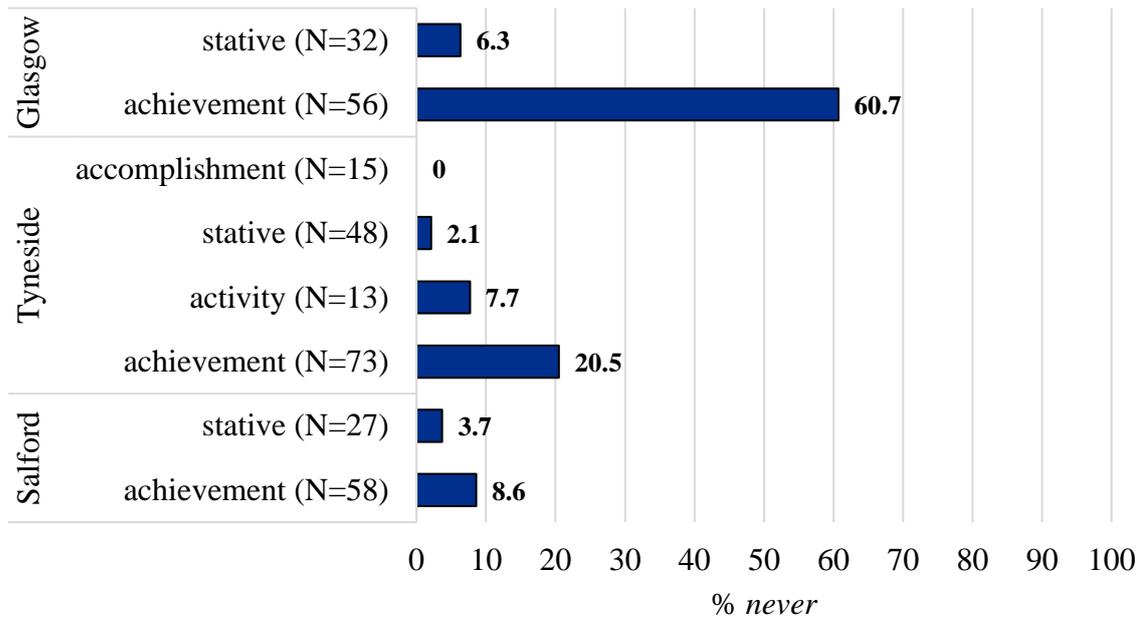


Figure 4.4: Distribution of Type 3 *never* (vs. *didn't*) according to lexical aspect, per locality

An area of cross-dialectal variation is that accomplishments do not occur with *never* at all in Tyneside, even though in the dataset overall they promoted the use of the variant almost as much as achievements. However, this could be due to sparse data for this category. The rate at which *never* occurs in statives and achievements (the two categories that can be compared across all three varieties) is proportional to each locality's overall frequency of the variant in Type 3 contexts, i.e. most frequent in Glasgow, followed by Tyneside, then Salford.

4.6.3. Length of the temporal window

As *never* has grammaticalised from a universal quantifier over time (Type 1) to develop non-quantificational uses in Type 2 and, subsequently, Type 3 contexts, one might expect some relic of the Type 1 use to persist in these newer uses (Hopper 1991: 22). This possibility is examined in Table 4.7 which focuses on the length of the temporal window depicted in Type 2 tokens.

	Type 2	Total N
	% <i>never</i>	
seconds	20	15
minutes	51.9	27
minutes or hours	23.1	13
hours	(66.7)	9
days	(42.9)	7
weeks	(71.4)	7
years	(50)	6

Table 4.7: Relative frequency of Type 2 *never* (vs. *didn't*) according to length of the temporal window

Although Cheshire (1997: 73) suggested that *never* is less acceptable in judgement tasks when it refers to a shorter timeframe, the results in Table 4.7 do not provide sufficient evidence of this effect holding in speech. The frequency of *never* is lowest when the temporal window is shortest ('seconds'), but there is not a unidirectional increase in its frequency as the time period lengthens. The low number of tokens per cell limits the analysis, but even across categories with at least 10 tokens ('seconds', 'minutes' and 'minutes or hours'), there is not a clear trend. A question remaining for future research is whether Cheshire's (1997: 73) observations about the temporal window effect are due to the presence of explicit temporal adverbs in some of her test sentences, which could not be investigated here because of their infrequency in my spoken data.

4.6.4. Discourse function

The hypothesis outlined in section 4.5.4 was that contradictions (the explicit contradiction of a speaker's previous overt assertion that a proposition was true) and counter-expectations (where the expectation of a speaker/hearer/subject/society was that *p* would be true) would exhibit higher relative frequencies of *never* than in no-counter-expectation expressions, i.e. where there was no previous expectation of the truth/falsity of the proposition or the expectation was met. Figure 4.5 shows the frequency of *never* according these discourse functions in Type 2 and Type 3 contexts, with 'Total N' representing the total number of tokens for each category (e.g. there were 86 tokens of *never/didn't* that were counter-expectations in Type 2 contexts and, incidentally, the same number in Type 3 contexts).

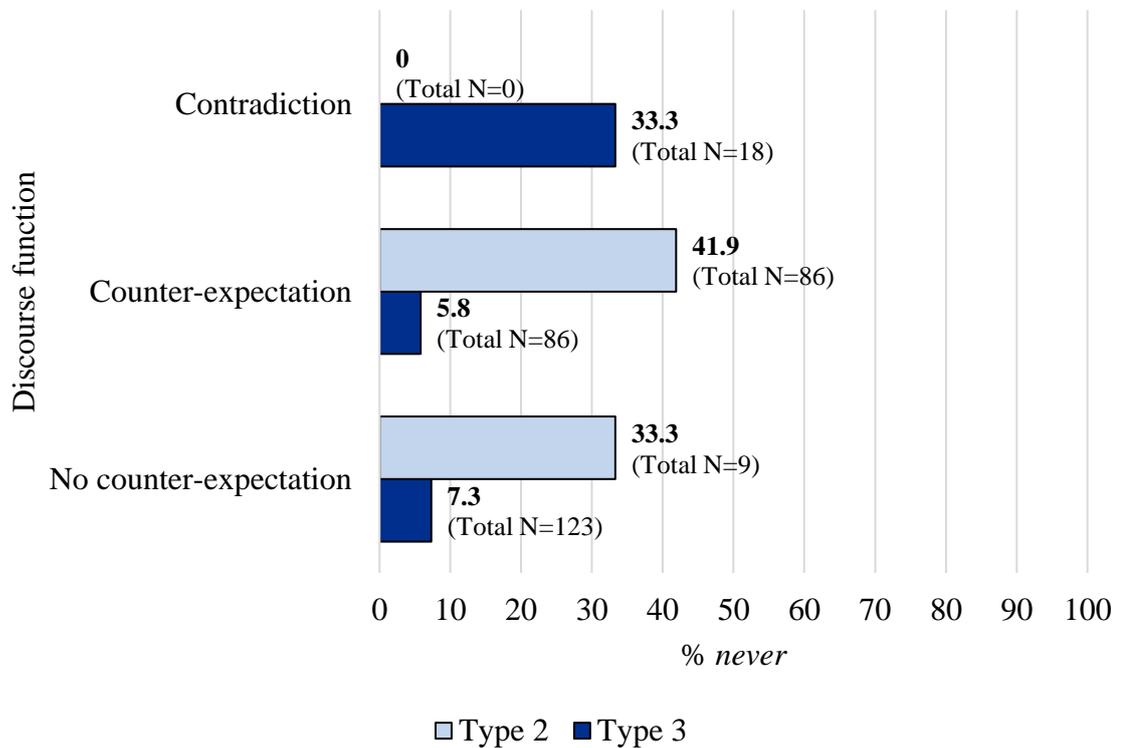


Figure 4.5: Relative frequency of *never* (vs. *didn't*) in Type 2 and Type 3 contexts according to discourse function

In Type 2 contexts, *never* is more likely to be used in counter-expectations (41.9%) than in no-counter-expectations (33.3%), which is consistent with the hypothesis that *never* is more likely to occur in pragmatically-marked contexts where the speaker poses a contrast between what was expected and what was actually the case. Given this result, we might predict a similarly high rate of *never* in Type 2 contradictions, since they too pose a contrast (between a previously-stated proposition and an explicit rejection of that proposition); however, there are no tokens of Type 2 contradictions at all, for either variant. This fact, along with the low number of Type 2 no-counter-expectation tokens (N=9) compared to the Type 3 equivalent (N=123), demonstrates that Type 2 contexts as a whole are strongly associated with counter-expectation. This category constitutes 90.5% of all Type 2 tokens. Type 3 contexts, on the other hand, are not associated with one particular function. The *never* variant, however, is most likely to feature in contradictions (33.3%) and only marginally in counter-expectations (5.8%) or where there is no counter-expectation (7.3%).

To test whether the trends from Figure 4.5 are consistent cross-dialectally, Table 4.8 presents the frequency of *never* according to function in Type 2 and Type 3 contexts, for each

community. The results show that the prior observations from the sample as a whole are consistent across the communities, at least as far as can be seen with the relatively small datasets: counter-expectation is a core characteristic of the Type 2 environment regardless of variant; Type 3 *never* is used more frequently in contradictions than for other functions (where there is sufficient data for this to be examined); and there is little differentiation between the counter-expectation and no-counter-expectation categories in terms of the relative frequency of Type 3 *never*. The data does not support prior attestations that *never* in Scottish varieties lacks the emphatic quality often reported for other varieties (Miller 1993: 115) – in Glasgow, *never* is the majority variant for Type 2 counter-expectations and Type 3 contradictions, which can be conceived of as the most ‘emphatic’ functions.

		Type 2		Type 3	
		% <i>never</i>	Total N	% <i>never</i>	Total N
Glasgow	Contradiction	-	0	(66.7%)	6
	Counter-expectation	72.7%	33	14.3%	21
	No counter-expectation	-	1	19.2%	26
Tyneside	Contradiction	-	0	20%	10
	Counter-expectation	32.3%	31	0%	37
	No counter-expectation	-	3	4.5%	67
Salford	Contradiction	-	0	-	2
	Counter-expectation	9.1%	22	7.1%	28
	No counter-expectation	(20%)	5	3.3%	30

Table 4.8: Distribution of *never* (vs. *didn't*) in Type 2 and Type 3 contexts according to discourse function, per locality

The results in this section thus far suggest that as *never* expanded from Type 2 into Type 3 uses (Lucas & Willis 2012), it changed in discourse-pragmatic function. Is this simply an artefact of the properties of achievement predicates vs. other predicate types? To address this question, in Table 4.9 below I compare the frequency of *never* for each function in Type 2 and Type 3 contexts from Figure 4.5 with *never*'s distribution for these functions in Type 3 achievement predicates.

	Type 2 (achievements)		Type 3 achievements		Type 3 non-achievements	
	% <i>never</i>	Total N	% <i>never</i>	Total N	% <i>never</i>	Total N
Contradiction	0	0	(57.1)	7	18.2	11
Counter-expectation	41.9	86	8.9	45	2.5	40
No counter-expectation	(33.3)	9	15.2	33	4.5	89

Table 4.9: Relative frequency of *never* (vs. *didn't*) in Type 2 achievements, Type 3 achievements and Type 3 non-achievements according to discourse function⁵⁹

Table 4.9 reveals the parallel between Type 3 achievements and Type 3 non-achievements in terms of *never*'s distribution, in contrast to Type 2 (achievement) contexts. In both sets of Type 3 environments, the ranking of functions (from the most to least likely to feature *never*) is the same: contradiction > no counter-expectation > counter-expectation. The type of predicate certainly impacts upon the frequency of *never*, as already seen in section 4.6.2, but the functional constraints appear to be the same. As Type 2 and Type 3 achievements do not pattern alike, the functional effects do not appear to be an epiphenomenon of predicate type. Rather, *never* has undergone specialisation as it grammaticalises (see Hopper 1991: 25), developing a new functional niche in Type 3 contexts not found in Type 2 contexts, namely, contradiction of previous propositions. This functional innovation could have arisen via reanalysis (Brinton & Traugott 2005: 110; Traugott & Trousdale 2010: 39), with the counter-expectation meaning so central to Type 2 contexts leading to *never* being reinterpreted as expressing contradiction when used non-standardly. Such reanalysis is plausible given the similarities between counter-expectations and contradictions. Both are reminiscent of the 'emphatic' function often ascribed to non-quantificational *never* (Beal 1993: 198; Hickey 2004: 524; Beal & Corrigan 2005: 145; Lucas & Willis 2012: 460; Buchstaller & Corrigan 2015: 80) and both mark disclaim (Martin & White 2005: 118). The contradiction is a stronger, potentially more face-threatening act since it concerns explicit denials of explicit propositions, as opposed to the denial of an implicit assumption. The evidence points towards the innovation of non-standard *never* as a pragmatically-motivated change which first appears in 'the most salient, most monitored, marked environment, from which it may spread' (H. Andersen 2001: 34). This could account for the rarity of *never* in counter-expectations in Type 3 contexts even though counter-expectation is characteristic of its Type 2 use.

⁵⁹ Table 4.9 has one fewer token of Type 3 counter-expectations and Type 3 no-counter-expectation functions than the previous analyses in this section, because these tokens were ambiguous in terms of lexical aspect.

A final consideration in this section is whether there is any interaction between discourse function and the ellipsis of the VP with *never*, as presented in Table 4.10. *Never* in elliptical constructions may function as a contradiction (Cheshire 1982: 68; Coupland 1988: 35) or portray emphasis (Cheshire 1982: 68; Beal 1997: 372). Standard English requires *did not/didn't* in these contexts, so the *never* tokens considered here are categorically non-standard, Type 3 uses (Lucas & Willis 2012: 471).

	Elliptical		Non-elliptical		Overall % of construction type that are elliptical
	% <i>never</i>	Total N	% <i>never</i>	Total N	
Contradiction	(50%)	4	28.6%	14	22.2%
Counter-expectation	2.9%	14	4.2%	72	16.3%
No counter-expectation	2.3%	29	7.4%	94	23.6%

Table 4.10: Relative frequency of Type 3 *never* (vs. *didn't*) according to ellipsis and discourse function

Never is more frequently employed over *didn't* in elliptical contradictions than non-elliptical contradictions (50% vs. 28.6%), but there is little difference in the frequency of *never* between elliptical and non-elliptical constructions for the other two functions. Although we must remain cautious given the low number of tokens for elliptical contradictions, these results are consistent with Cheshire's (1982: 68) observation that *never* 'occurs alone [i.e. in elliptical constructions] mainly in arguments, to contradict what has been said before'. It appears that speakers select the most marked variant, non-standard *never*, most often in the most marked linguistic context – i.e. in clause-final position, to contradict another speaker. This tallies with the characterisation of non-standard uses of *never* as a pragmatically-motivated change, under which we expect it will gradually expand its territory and occur with higher frequency in less marked contexts (H. Andersen 2001: 34).

4.6.5. *Speaker sex and speaker age*

Speaker sex and age were selected as independent predictors that could correlate with the variation between *never* and *didn't*, potentially providing insight into change in progress. As the results for speaker sex in Figure 4.6 show, the frequency of *never* in Type 2 contexts largely does not differ between the sexes in Glasgow and Salford, but it does in Tyneside. As

for Type 3 uses, *never* is more frequently used by men than women in Glasgow and Tyneside, which is in keeping with the common tendency for men to use non-standard variants more than women (Chambers & Trudgill 1998: 61; Labov 2001). However, Salford displays the opposite trend: women use it more than men. These cross-community differences may arise partly due to low token numbers in the distributions, which mean that a chi-squared value cannot be calculated.

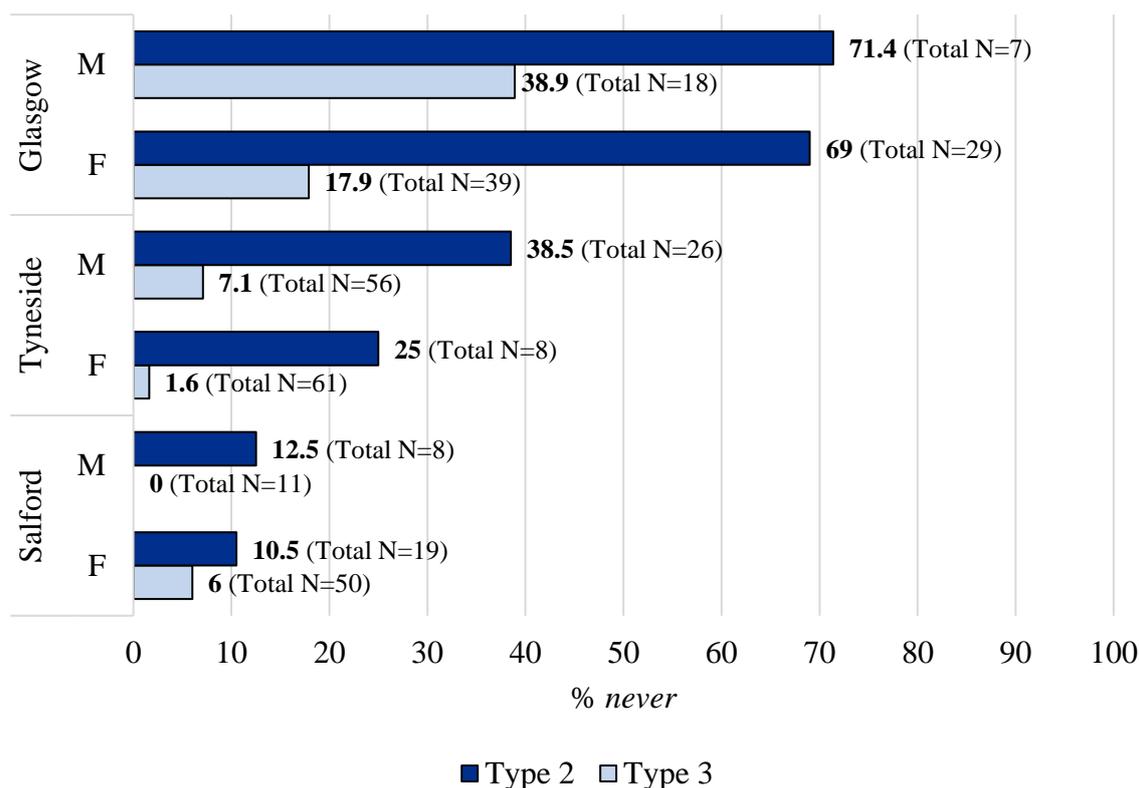


Figure 4.6: Relative frequency of *never* (vs. *didn't*) in Type 2 and Type 3 contexts according to speaker sex

In considering the potential impact of speakers' age on the choice of *never* or *didn't* in Figure 4.7, sparse data prevents the calculation of chi-squared values for all but the Glasgow Type 3 tokens, where the distribution was not significant. Nevertheless, I outline the key tendencies in the data here as potential lines of future enquiry. The extent of *never*'s use in Type 2 contexts is relatively consistent between age groups, except in Glasgow where younger speakers use it more than older speakers. The same is true of Type 3 *never* in Glasgow and Tyneside, but not in Salford. These results do not satisfactorily support the conclusion that non-quantificational *never* is 'spreading' in Scottish varieties (Miller & Brown 1982: 15) and potentially in other dialects of English (Beal 1997: 32), but that is not to say that there is no

ongoing change. Changes in the use of *never* are certainly observable in diachronic data (Lucas & Willis 2012) and the synchronic data presented in this chapter. It may be that a larger dataset with a wider timeframe than my own would uncover social correlates in the frequency of *never* in apparent-time.

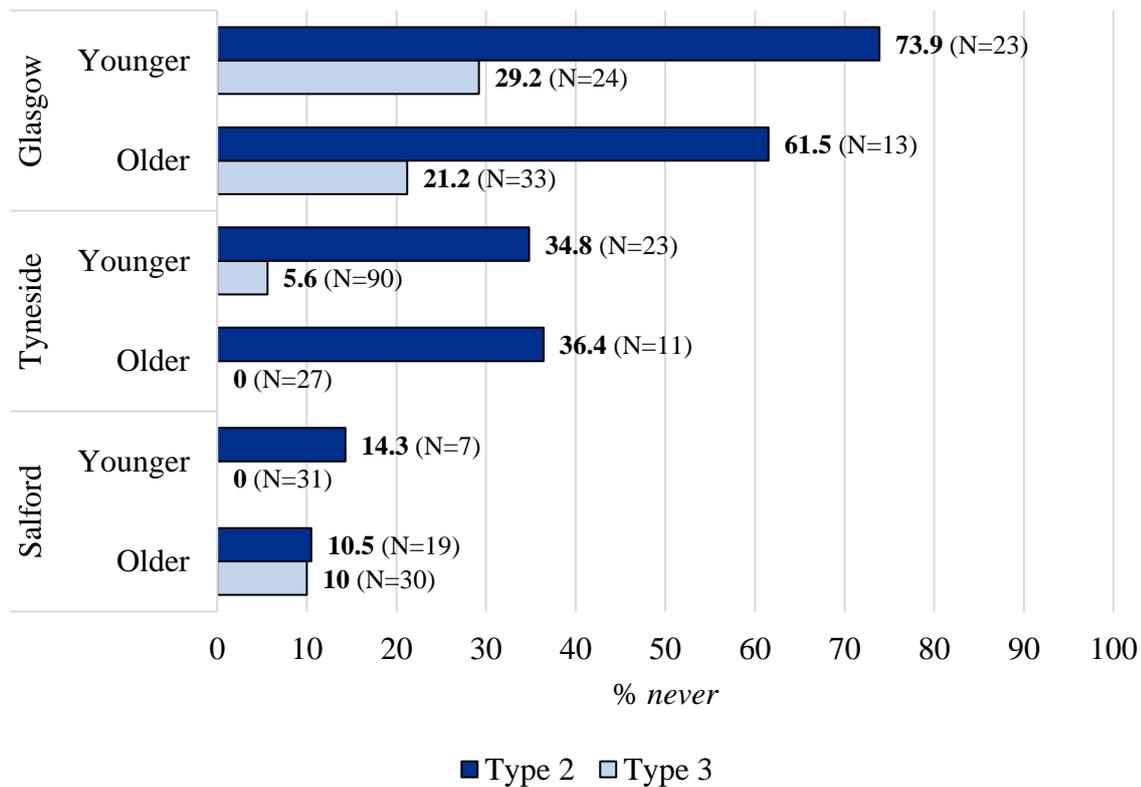


Figure 4.7: Relative frequency of *never* (vs. *didn't*) in Type 2 and Type 3 contexts according to speaker age

4.6.6. Regression analysis

The distributional analysis has shown that the choice of non-quantificational *never* or *didn't* is affected by the following factors: locality, lexical aspect and discourse function. The analysis now proceeds with a mixed-effects logistic regression to ascertain the relative importance of these effects. The Type 2 tokens cannot feature in such a model because they are not sufficiently frequent (N=97), but the Type 3 tokens are included (N=225) and are thus the focus of this analysis.

Some re-categorisation of the data was required since certain categories had very little variation and therefore could not be included in the model (Guy 1993: 239), as explained for each factor below.

Locality

Tyneside and Salford had low relative frequencies (<5%) of Type 3 *never* (see section 4.6.1). Groups with relative frequencies under 5% can be excluded from the model (see Guy 1988: 132), but this would prevent me from examining locality as a factor conditioning the variation, resulting in a model lacking what could be a crucial predictor. For these reasons, I combined the tokens from Tyneside and Salford into a single group, allowing comparison between Northern English and Glaswegian English, which is preferable to not considering locality at all.

Function

‘Function’ originally consisted of three factors: contradictions, counter-expectations and no-counter-expectations. The distributional analysis in section 4.6.4 showed that the relative frequency of *never* in Type 3 contexts was almost the same for counter-expectation and no-counter-expectation contexts (5.8% and 7.3% respectively). Since these two contexts are pragmatically less marked than contradictions (see section 4.5.4), the statistical model includes a binary distinction between ‘non-contradictions’ (combining the counter-expectation and no-counter-expectation categories) and ‘contradictions’.

Lexical aspect

In relation to lexical aspect, the stative category exhibited a low relative frequency of *never* in Type 3 contexts (3.8%). Excluding statives from the model would reduce the total number of tokens by almost half (N=106), which is far from desirable. I therefore use a binary variable comprising ‘non-achievements’ vs. ‘achievements’. Non-achievements consist of stative, activity and accomplishment predicates, for comparison against achievement predicates. This allows me to test my hypothesis that *never* as an innovation in Type 3 contexts would be favoured in achievement predicates, i.e. it would be constrained by its historically older (but

still prevalent) use in Type 2 “window of opportunity” contexts that are inherently achievement predicates.

Ideally one would not need to collapse groups to form binary variables but these decisions to combine levels of the independent variables serve to retain the largest possible number of tokens overall (only 10 were lost from the original total of 235), as well as per group and per level, increasing the reliability of the model. Even though more complex models have the potential to explain more of the variation overall, I argue that a simple, more reliable model is preferable to a complex, unreliable one.

Table 4.11 shows the results of the mixed-effects logistic regression to investigate the significance of locality, function and lexical aspect in the variation between Type 3 *never* and *didn't*. ‘Speaker’ is included as a random effect to account for inter-speaker variation.

	Type 3 <i>never</i>						
Total N	225						
AIC	108.5						
Log Likelihood	-49.2						
Deviance	98.5						
	Estimate	Std. error	Z- value	p-value	Sig.	%	N
(Intercept)	-6.6406	2.4742	-2.684	0.00728	**		
Locality <i>Reference level:</i> <i>Tyneside & Salford</i>						4.7	172
Glasgow	3.2327	1.4460	2.236	0.02537	*	22.6	53
Function <i>Reference level:</i> <i>Non-contradiction</i>						6.8	207
Contradiction	3.1562	1.4249	2.215	0.02676	*	33.3	18
Lexical Aspect <i>Reference level:</i> <i>Non-achievement</i>						5	140
Achievement	2.2083	0.9577	2.306	0.02112	*	15.3	85
Speaker Random st. dev.	2.425						

Table 4.11: Mixed-effects logistic regression of the combined effect of factors in the use of Type 3 *never* (vs. *didn't*)

The fixed factors all contribute significantly to the variation. Locality is marginally the most significant, with the largest estimate value and lowest p-value of any predictor. Speakers in

Glasgow are significantly more likely to use *never* than those in Tyneside and Salford in Northern England. Function is the next most significant factor, showing that contradictions favour *never* more than non-contradictions. The results for the final fixed factor, lexical aspect, show that achievements favour *never* over non-achievements.

The regression results corroborate the earlier distributional analyses, as all of the fixed effects are significant when considered together. Although non-quantificational *never* is widespread across varieties of English, the model shows that its frequency differs significantly between dialects. The significantly high frequency of this type of *never* in Glasgow is in line with previous reports that this feature especially pertains to Scottish varieties of English (Miller & Brown 1982: 15; Miller 1993: 115, 2004: 51).

The model also provides evidence that *never* is not merely ‘emphatic’ as previously reported (Beal 1993: 198; Hickey 2004: 524; Beal & Corrigan 2005: 145; Lucas & Willis 2012: 460; Buchstaller & Corrigan 2015: 80), but is favoured in specific pragmatically-marked contexts, namely contradictions, which express contrast between two *explicit* opposing propositions.

The results for lexical aspect are consistent with Lucas and Willis’ (2012) account of the historical trajectory of *never*, in which its use as a standard variant in Type 2 “window-of-opportunity” environments (categorically achievement predicates) was followed by its subsequent expansion into Type 3 contexts (of various predicate types) where it is non-standard. *Never*’s restriction to achievement predicates in Type 2 contexts persists in its distribution in Type 3 contexts since achievements favour its use.

4.7. Discussion

Although *never* originated as a universal quantifier over time (Type 1) in Old English, it gradually developed non-quantificational functions equivalent to *didn’t* which are still used in present-day English (Lucas & Willis 2012). My analysis focused on the variation between non-quantificational *never* and *didn’t* in two separate contexts as described in Lucas and Willis (2012): (i) Type 2 “window of opportunity” contexts, comprising achievement predicates in the preterite tense where there is a specific temporal window in which an event could have occurred but did not (e.g. *she never got my message*); and (ii) Type 3 contexts,

comprising various predicate types in the preterite tense where there is no “window of opportunity” but *never* still has non-quantificational meaning (e.g. *I never had that coat*). *Never* in Type 2 contexts (in which it is a standard variant) subsequently expanded into Type 3 contexts where it is non-standard (Lucas & Willis 2012). This chapter focused on this variation between non-quantificational *never* and *didn't* in Glasgow, Tyneside and Salford. Quantitative analysis of the syntactic, semantic and discourse-pragmatic factors conditioning speakers' choice of variant, as well as the distribution on social and geographical dimensions, provided insight into *never*'s path of grammaticalisation.

Given reports that non-quantificational *never* is a feature of Englishes around the world (Kortmann & Szmrecsanyi 2004; Britain 2010; Hughes *et al.* 2013: 29), one might not anticipate substantial differences in its frequency across British communities. However, the results of my distributional analysis revealed that locality was a significant factor in the use of non-quantificational *never*. In a mixed-effects logistic regression of *never* and *didn't* in Type 3 contexts, locality was the most significant predictor of all, with Glasgow speakers favouring the use of *never* more than those in Northern England (Tyneside and Salford). Not only does this result support associations between Scotland and higher frequencies of non-quantificational *never* (Miller & Brown 1982: 15; Miller 1993: 115, 2004: 51), but it demonstrates that even the most ubiquitous linguistic features can exhibit localised patterns.

As *never* in Type 2 contexts necessarily occurs with achievement predicates and the form became used in Type 3 contexts at a later point in time (Lucas & Willis 2012), I hypothesised that *never* would also be more likely to occur with achievement predicates in Type 3 uses. This hypothesis was supported by the distributional analysis, both as a whole and per community, as well as the regression analysis. In Type 3 contexts, *never* was more likely to occur with predicates with an inherent temporal boundary (achievements and accomplishments) as opposed to unbounded predicates (activities and statives), reflecting its nature as a punctual negator. Furthermore, the frequency of *never* in Type 3 achievements in each community was remarkably similar to the localities' respective overall rates of *never* in Type 2 (achievement) contexts, suggesting that the status of *never* as non-standard is neutralised in this predicate type where both can both occur.

Although the length of the temporal window did not appear to influence the variation, discourse function had a significant effect, confirming previous reports that *never* can express emphasis (Beal 1993: 198; Hickey 2004: 524; Beal & Corrigan 2005: 145; Buchstaller & Corrigan 2015: 80) or the contradiction of propositions, either explicit (Cheshire 1982: 68; Coupland 1988: 35) or implicit (Lucas & Willis 2012: 460). Analysing the distribution of variants in ‘contradiction’, ‘counter-expectation’ and ‘no-counter-expectation’ categories revealed key differences in *never*’s functional correlates in Type 2 vs. Type 3 contexts. Type 2 contexts most often expressed counter-expectation regardless of variant and this was the function which promoted the use of the *never* over *didn’t* the most. In Type 3 contexts, *never* was most likely to be used in contradictions (a non-existent function amongst the Type 2 tokens of either variant) and rarely for other functions. *Never* therefore appears to have changed in function as it expanded from Type 2 into Type 3 contexts. If contradictions had an elided VP, *never* was even more likely to appear, in keeping with Cheshire’s (1982: 68) observations that these contradictions were most common in argumental interactions. More linguistically-marked contexts (ellipsis of VP) and more pragmatically-marked contexts (contradiction of previous speaker’s proposition) yield the highest rates of non-standard *never*, reflecting a common trajectory of pragmatically-motivated change (H. Andersen 2001: 34).

The results of this chapter support the proposed trajectory of *never* developing from Type 1 uses to Type 2 and, subsequently, Type 3. However, the variation did not pattern convincingly according to speaker sex and age, partly because of the low number of tokens per cell in each community. The status of *never* as a non-standard innovative variant in Type 3 contexts might lead one to expect that younger and male speakers in particular may lead in using it (see Labov 2001: 321, 2006: 207–8), but evidence of this was found only in Glasgow and Tyneside.

This analysis of the variation between non-quantificational *never* and *didn’t* has revealed the semantic, syntactic and discourse-pragmatic properties of this understudied phenomenon, while also lending statistical support to previous observations about *never* that were primarily based on qualitative data. The robust application of the core semantic-syntactic constraints across three varieties of UK English emphasises that the choice of variant is heavily influenced by our internal grammar. However, discourse-pragmatic function also has a pivotal

role in differentiating the types of *never* and impacts upon their frequency of use. Given the dearth of quantitative studies of *never* vs. *didn't*, future research could explore whether the same linguistic and discourse-pragmatic constraints identified in this chapter hold in other varieties of English. Further research is also warranted into the potential impact of social factors, which would require a larger dataset.

Chapter 5. Negative Tags

5.1. Introduction

Negative tags are a type of *yes-no* question ‘appended to a statement’ (Quirk *et al.* 1985: 810). They consist of a negatively-marked verb (with *n’t* or *not*) and a subject, specifically a personal pronoun or *there*. Under standard tag formation rules, the verb in the tag, sometimes called the ‘operator’ (Millar & Brown 1979: 24; Quirk *et al.* 1985: 810), is the same as the verb in the clause to which the tag is appended, known as the ‘anchor’/‘anchor clause’ (Tottie & Hoffmann 2006, 2009; Pichler 2013) or ‘host clause’ (Cattell 1973; Kimps 2007). The subject in the tag is co-referential with the anchor clause subject and thus agrees in person, number and gender. Typically, there is also polarity reversal between the anchor clause and the tag, meaning that negative tags are usually appended to positive statements. The range of potential verb+pronoun combinations of these tags lead to much variability in the system, but even more variability results from their range of phonetic realisations, which, for the purposes of this analysis, I categorise into three groups of variants: full, reduced and coalesced. Full tag variants have canonical realisations, exemplified in (101) for the auxiliaries ISN’T, DOESN’T and HAVEN’T (though all negative auxiliaries with *n’t* can feature in negative tags). Reduced variants are those where the full forms have undergone phonological attrition, namely the loss of medial consonants and/or vowel reduction, as in (102). Coalesced tags represent a further stage of reduction where the verb and pronoun have become fused and pronounced as a single unit, as with the tags in (103). In this chapter I explore how negative tags’ reduction in form and changes in their discourse-pragmatic variability reflect ongoing grammaticalisation, as well as examining how the choice of variant is conditioned by linguistic and external factors in Glasgow, Tyneside and Salford.

(101) Full

- a. ISN’T That’s stupid, **isn’t it?** [NKOF3, Glasgow]
- b. DOESN’T It depends where you go though, **doesn’t it?** [AA/613, Tyneside]
- c. HAVEN’T You’ve seen the logo, **haven’t you?** [Paul, Salford]

- (102) Reduced
- a. ISN'T There's a song about it, **int there?** [James, Salford]
 - b. DOESN'T He likes his horse-riding, **dunt he?** [Sasha, Salford]
 - c. HAVEN'T somebody's got to do it, **hant they?** [00-G1-m03, Glasgow]
- (103) Coalesced
- a. ISN'T It's unbelievable, **innit?** [PM/85, Tyneside]
 - b. DOESN'T Makes a pure mad noise, **dunnit?** [3M6, Glasgow]
 - c. HAVEN'T well I've always had English Bulls me, **hanna?** [Moir, Salford]

These three groups of variants (full, reduced, coalesced) can be considered three stages in a process of tag reduction, where coalesced forms are the most recent development (Krug 1998; G. Andersen 2001; Pichler 2013). This is a gradual process with some reduced and coalesced forms having been attested as far back as Early Modern English (Jespersen 1940: 433). However, one form that appears to be more recent and has been subject to much sociolinguistic comment is the coalesced tag *innit* ("isn't it") (Krug 1998; G. Andersen 2001; Pichler & Torgersen 2009; Cheshire *et al.* 2005; Pennington *et al.* 2011; Torgersen *et al.* 2011; Pichler 2013; Palacios Martínez 2015; Pichler 2016), which is grammaticalising in certain British English dialects (particularly in London) where it is not always used canonically, i.e. it can be appended to clauses with non-3SG subjects and/or verbs other than *is*. Other studies take a broader perspective and consider variation within the entire tag system, i.e. the whole host of auxiliary and pronoun combinations (sometimes including positive tags as well as negative tags), rather than a single form. These studies often focus on one variety of English, e.g. the varieties spoken in Berwick-upon-Tweed in North East England (Pichler 2013), London (Kimps *et al.* 2014) or the UK more generally (Kimps 2007). Others focus on the social meaning of tags in peer groups (Moore & Podesva 2009), while some scholars study tags diachronically in the history of English (Tottie & Hoffmann 2009). There are, however, relatively few cross-varietal investigations of tags. Studies that do make such comparisons are primarily concerned with differences in the frequency of tag forms and/or functions between corpora of national varieties of English (Nässlin 1984; Tottie & Hoffmann 2006; Palacios Martínez 2015). The few comparative analyses of tags in regional varieties of UK English focus predominantly on *innit*, e.g. Krug's (1998) UK-wide investigation using the BNC, Cheshire *et al.*'s (2005) research in Hull, Reading and Milton

Keynes, and Pichler and Torgersen's (2009) work in Berwick-upon-Tweed and London. Although Krug's (1998) use of the BNC allows for broad-stroke analysis of regional differences in the UK, the corpus is unbalanced in terms of the number of speakers per region and their social characteristics (Anderwald 2005: 122) and transcribers may not have captured the full extent of the phonetic and morpho-syntactic variability (see Pust 1998). Cheshire *et al.*'s (2005) study was meanwhile limited by the lack of *innit* (N=36) – and negative tags more generally – as well as their focus only on frequencies across social groups rather than linguistic constraints on use. Pichler and Torgersen (2009) struck a balance between analysing the social and linguistic distribution of *innit*, but focus only on this particular tag.

To my knowledge, there are no cross-dialectal comparative studies of negative tag systems as a whole that consider linguistic, discourse-pragmatic *and* social effects on their use. This chapter fills this gap with a variationist analysis of syntactic, functional and social patterns in Glasgow, Tyneside and Salford English. I draw upon insights from previous investigations of tags in English that have (i) undertaken quantitative analysis of linguistic constraints on the variation in tag form (G. Andersen 2001; Pichler 2013); (ii) demonstrated that tags have an array of discourse-pragmatic functions (Millar & Brown 1979; Cheshire 1981; Holmes 1982, 1984, Algeo 1988, 1990; G. Andersen 2001; Tottie & Hoffmann 2006; Kimps 2007; Moore & Podesva 2009; Tottie & Hoffmann 2009; Pichler 2013; Kimps *et al.* 2014; Pichler 2016); and (iii) have observed social trends in tag use (G. Andersen 2001; Cheshire *et al.* 2005; Torgersen *et al.* 2011; Pichler 2013). I examine the extent to which these tags are becoming phonetically reduced, being used in non-canonical semantic-syntactic contexts and are undergoing pragmatic expansion, which are typical of grammaticalisation. As such, the three main aims of this chapter are as follows:

- (i) to examine whether the reduction in the phonetic form of negative tags proceeds according to the same linguistic constraints in Glasgow, Tyneside and Salford;
- (i) to investigate whether tag realisation correlates with speaker sex and age and, if so, whether these effects are indicative of ongoing change from full to reduced/coalesced tag variants in the communities under study;

- (iii) to examine whether reduction in the phonetic form of tags correlates consistently with discourse-pragmatic function to suggest ongoing grammaticalisation.

The chapter is organised as follows. Section 5.2 presents a synthesis of previous research on negative tags. Section 5.3 explains the variable context and the principles followed in extracting negative tags from the corpus samples. This is followed by explanation of the tag variants (section 5.4) and how the tokens were coded (section 5.5). Section 5.6 presents results of the comparative sociolinguistic analysis of the linguistic and social constraints on the variable in Glasgow, Tyneside and Salford, in both distributional and regression analyses. The chapter concludes with discussion of the results and their implications in section 5.7.

5.2. Previous research on negative tags

Tags have been investigated from many different theoretical perspectives. Given the nature of my research questions outlined in section 5.1, I now summarise the findings of previous studies into the phonetic and syntactic characteristics of tags which provide insight into grammaticalisation (5.2.1) and how discourse-pragmatic function relates to this kind of linguistic change (5.2.2). This is followed by summaries of tags' extralinguistic distribution, both social (5.2.3) and geographical (5.2.4).

5.2.1. Phonetic and syntactic factors in the grammaticalisation of tags

The syntactic-semantic distribution, phonetic form and discourse-pragmatic function of negative tags are means of establishing whether they are undergoing grammaticalisation, a process of change 'whereby particular items become more grammatical through time' (Hopper & Traugott 2003: 2). Grammaticalising items advance along a temporal 'cline of grammaticalisation' from 'a fuller form of some kind, perhaps "lexical" to 'a compacted and reduced form, perhaps "grammatical"' (Hopper & Traugott 2003: 6). Lexical items can become more grammatical, or grammatical items can become "more" grammatical, but the change almost always, if not categorically, proceeds in this 'unidirectional' manner (Brinton & Traugott 2005: 25).

One indicator of grammaticalisation relevant to negative tags is that they undergo erosion (Heine 2003). *Innit* has received specific attention in this regard as it is undergoing grammaticalisation in British English (G. Andersen 2001; Cheshire *et al.* 2005; Pichler & Torgersen 2009; Torgersen *et al.* 2011; Palacios Martínez 2011; Pichler 2016). The derivation of *innit* through phonetic reduction and fusion appears to have proceeded in one of two ways (G. Andersen 2001: 106):

(104) Hypothesis 1
 isn't it [ɪznt it] → isn't it [ɪzn it] → innit [ɪn it]

(105) Hypothesis 2
 ain't it [eɪnt it] → int it [ɪnt it] → in it [ɪn it]

The second path of development is less straightforward than the first, particularly because the origin of non-standard *ain't* is itself unclear (Jespersen 1940: 433). In present-day use, *ain't* can represent Standard English *haven't*, *hasn't*, *(a)m not*, *aren't* and *isn't* (Cheshire 1981: 366)⁶⁰ and can be derived from each of these five auxiliaries historically through various sound changes (Anderwald 2002: 118), even if *am not* is '[t]he most probable ancestor' (Cheshire 1981: 367). G. Andersen (2001) finds that *in* is infrequent in *The Bergen Corpus of London Teenage Language* (COLT) and speakers who use *innit* do not necessarily use *in/int/ain't*, which runs contrary to expectations if Hypothesis 2 is correct. Hypothesis 1 is therefore a more likely path of development, given the repeated observations that *innit* is used in place of *isn't it* in tags more than any other verb+pronoun combination and both variants are favoured in the same syntactic environments (G. Andersen 2001: 200, Pichler 2013: 198-9; Palacios Martínez 2015: 7-8). Furthermore, *int* tends to occur in 3SG BE contexts leading Cheshire (1981: 378) to argue that it is most likely 'derived from regular sound change from the standard English *isn't*'.

When related full and more reduced forms are in variation with one another, 'it is a reasonable hypothesis that the reduced form is the later form' (Hopper & Traugott 2003: 125), as supported by G. Andersen's (2001) proposed derivation of *innit* in (104) and (105). The reduction of *isn't it* to *int it* can therefore be considered one step on the cline of

⁶⁰ The form *ain't* can represent the auxiliary and main verb forms of BE, but only the auxiliary forms of HAVE (Cheshire 1981: 366).

grammaticalisation. *Int it* can become fused as *innit*, representing a further step on the cline. Similar trajectories are likely for other reduced and coalesced forms (e.g. *doesn't it* > *dunt it* > *dunnit*) but this has, to my knowledge, not yet been investigated. My study therefore focuses on these changes in the entire set of negative tags in the dialects under investigation.

Although reduction and fusion are typical of grammaticalisation, they do not *necessarily* reflect grammaticalisation as they are common processes in change (Lehmann 1995: 126). Other potential indicators of grammaticalisation must be considered too. One of these is the extent to which the tags agree with the anchor clause they are appended to. When the operator agrees with the verb in the anchor clause (or takes DO when the anchor clause contains a lexical verb) and the tag pronoun agrees in person, number and gender features with the anchor clause subject, the tag is ‘paradigmatic’ (G. Andersen 2001; Pichler 2013), as in (106). However, some tags agree with respect to either the verb or pronoun (‘semi-paradigmatic’ tags), as in (107), while others disagree in both respects (‘non-paradigmatic’ tags), as in (108).

(106) Paradigmatic

- a. It’s a well-run country, **innit**? [PS/243, Tyneside]
- b. But these things happen, **don’t they**? [Bill, Salford]

(107) Semi-paradigmatic

- a. You wonder how they can afford it, **can’t you**? [NKOF1, Glasgow]
- b. Y- you used to get pumice stones as well, **didn’t they**? [Catherine, Salford]

(108) Non-paradigmatic

- a. No, they put a stop to everything **int it**? [Gail, Salford]
- b. They changed the comprehensive system **wasn’t it** [MD/59, Tyneside]

Semi-/non-paradigmatic tags can represent grammaticalisation, specifically ‘invariabilisation’, i.e. ‘the process of reanalysis by which a form that was originally restricted to a particular syntactic environment comes to be used in all syntactic environments across the inflectional paradigm’ (G. Andersen 2001: 98). The use of tags in these non-agreeing contexts is characteristic of decategorialisation, i.e. items gradually moving from one linguistic category to another by gradually losing morpho-syntactic properties (Heine 2003). Non-

paradigmatic uses of *innit* as in (109) (sometimes termed ‘invariant’ *innit*) are a recognisable feature of London teenagers’ language (G. Andersen 2001; Cheshire *et al.* 2005; Torgersen *et al.* 2011; Pichler 2016). In COLT, the majority of *innit*’s occurrences (56%) are in non-paradigmatic contexts, whereas in the BNC/London corpus of adult conversation, it is only used paradigmatically (G. Andersen 2001: 108-9). These uses are, however, relatively rare in other corpora of British English (Cheshire *et al.* 2005: 156; Pichler 2013: 198-9, 2016).

(109) I was talking to you earlier on **innit** [COLT] (Stenström 1997: 141)

The prevalence of non-paradigmatic uses of *innit* in London is said to reflect its origins in the speech of ethnic minority groups and its subsequent adoption by other speakers (G. Andersen 2001: 114). Non-paradigmatic uses of tags including *isn’t it* and *innit* are indeed characteristic of many L2 varieties of English (Quirk *et al.* 1985: 28; Hussain & Mahmood 2014). Non-paradigmatic *innit* can appear where the canonical tag is ‘stylistically awkward’ (e.g. *mightn’t I?*) or phonologically complex (G. Andersen 2001: 138, 169). It has developed unique discourse-pragmatic functions in its clause-final environment, where it can appeal to the hearer’s imagination and common ground between speaker and hearer (G. Andersen 2001: 138). It has also recently begun to be used in non-canonical syntactic positions, with potential to take scope over single phrases to mark information structure and even occur in the left periphery of the clause for corroborative functions and seeking attention (Pichler 2016). The expansion of tags’ discourse-pragmatic function is therefore another indicator of the grammaticalisation process.

5.2.2. Discourse-pragmatic function as a factor in the grammaticalisation of tags

Given their status as a type of yes-no question (Quirk *et al.* 1985: 810), it might be expected that the core function of tags is epistemic, i.e. to request information from the interlocutor. Indeed, some accounts suggest that seeking verification is their sole or at least primary function (Bublitz 1979: 20; Cuenca 1997: 3). However, tags have many other discourse functions, as discussed in detail in section 5.5.4 where I explain how tag functions were coded in my data. This section instead takes a wider perspective, reviewing how linguists have considered similar sets of tag functions but have grouped them into different broader categories depending on the nature of their study. Although the *outcome* of

grammaticalisation is associated with loss of meaning, there must first be pragmatic enrichment that drives the process (Brinton & Traugott 2005: 110). This pragmatic shift often occurs due to the ‘autonomy of grammaticizing phrases and their growing opacity of internal structure [which] makes it possible for new pragmatic functions to be assigned to them’, especially in the high-frequency contexts which promote grammaticalisation (Bybee 2003: 618). One particularly relevant functional distinction in relation to grammaticalisation is the differentiation of subjective meanings, i.e. those involving ‘the speaker and the speaker’s beliefs and attitudes’, and intersubjective meanings, i.e. those involving ‘the addressee and the addressee’s face’ (Traugott 2010: 30). The development of both subjective and intersubjective meanings is associated with grammaticalisation, though Traugott (2010: 61) suggests that subjective meanings have the strongest association with the process, arguing that the development of intersubjective meanings typically involves ‘expressions of politeness, and cross-linguistically these tend to be associated with lexical choices rather than with grammatical ones’. Nevertheless, intersubjective meanings are derived from subjective meanings and therefore, if they do arise, constitute a later functional development (Traugott 2010: 34). That said, the change from subjective to intersubjective meanings may not apply so straightforwardly to negative tags, which may have more intersubjective meanings from the outset (Traugott 2012: 11; Pichler 2013: 208).

The distinction between subjective and intersubjective meanings bears similarity to Holmes’ (1982, 1984) categorisation of tags as either modal or affective. Tags with modal meaning express epistemicity, i.e. the extent to which the speaker is certain about a proposition (Holmes 1982: 48). These can be categorised as subjective, whereas those that express affective meaning, conveying ‘attitudes towards others’ (Holmes 1982: 48), are more intersubjective. Tags with affective meanings can express positive politeness and solidarity with interlocutors, e.g. by encouraging interlocutors to participate in the conversation, or can function as negative politeness devices to hedge statements that might otherwise be negatively-perceived (Holmes 1982: 61, 1984: 54), as illustrated in (110).

(110) That was pretty silly, **wasn't it?** (Older child to younger friend)

(adapted from Holmes 1984: 55)⁶¹

Cheshire (1981, 1982) meanwhile conceives tag meanings as 'conventional' vs. 'non-conventional'. Conventional tags adhere to Hudson's (1975) sincerity condition for declaratives in (111) and interrogatives in (112), whereas non-conventional tags violate the latter.

(111) Sincerity condition for declaratives:
'The speaker believes that the proposition is true.'

(112) Sincerity condition for interrogatives:
'The speaker believes that the hearer knows at least as well as he himself does whether the proposition is true or false.'

(Hudson 1975: 12, 24)

The conventional tags typically request verification or confirmation of a statement, either fact or opinion (Cheshire 1981: 375). Non-conventional tags, in violating the sincerity condition in (112), are more aggressive and can be used to insinuate that another speaker's previous utterance was 'a foolish one' (Cheshire 1981: 375). Conventional tags are conventional in the sense that they are conducive, i.e. they aim to elicit a response from the interlocutor, whereas non-conventional tags are non-conducive since 'no answer is required' (Cheshire 1981: 375). These functions are illustrated with the examples from my data in (113) and (114).

(113) Conventional
cos you- you're the same age as me **aren't you?** [Emily, Salford]

(114) Non-conventional
NKYM1: I'll end up just slagging the fuck out of you.

⁶¹ The original example in Holmes (1984: 55) has the same anchor clause but with the tag *eh* which in this context functions in the same way as *wasn't it*, i.e. to soften the statement *that was pretty silly*.

NKYM2: Well, I'll be kicking you in the balls then **won't I?** [Glasgow]

Cheshire (1981, 1982) found correlations between these functions and tag form, as *in't*, *ain't* or Standard English alternatives were used in conventional tags, but only *in't* was used for non-conventional functions. Pichler (2013) found similar form-function correlations in Berwick-upon-Tweed, where *innit* was favoured with non-conducive functions, while canonical full tags were favoured for conducive functions. These results are consistent with the interpretation that reduced and coalesced tags are further advanced along the cline of grammaticalisation than full variants, as not only are they more reduced in form but they have developed 'more semantically bleached meanings' (Pichler 2013: 217).

5.2.3. *Social patterns in tag use*

Previous analyses of tags have often focused on their distribution across social groups. In one of the earliest social accounts of tag use, Lakoff (1973) claimed that women use tags more frequently than men and that particular functions, such as involvement-inducing (e.g. Lakoff's example *The war in Vietnam is terrible, isn't it?*), may be more frequent in women's speech as a reflection of a lack of assertiveness. However, Lakoff's (1973) claims are based purely on impressions rather than empirical investigation. Later work criticised Lakoff (1973) on these grounds and emphasised that supposed correlations between tag use and "women's language" are not particularly meaningful or accurate but that we should consider the function of tags in their discourse contexts (Dubois & Crouch 1975; O'Barr & Atkins 1980; Holmes 1982: 64, 1984; Cameron *et al.* 1989). Moore and Podesva's (2009) third-wave sociolinguistic investigation of tags in a high school in North West England is successful in this regard, as they show that tags can index particular social meanings (e.g. knowledge, authority, coolness, etc.) which may be specific to certain social networks or shared between groups.

Most recent studies have taken a more quantitative approach to analyse social patterns in tag use, with particular focus on *innit*. Torgersen *et al.*'s (2011) frequency-based analysis suggests that the use of *innit* has stabilised in London, but investigations which also considered the linguistic distribution of the form suggest that young people are leading in its use, in paradigmatic and non-paradigmatic contexts (Krug 1998; G. Andersen 2001; Pichler & Torgersen 2009; Palacios Martínez 2015; Pichler 2016). As for differences between the sexes,

G. Andersen (2001) observes that both paradigmatic and non-paradigmatic uses of *innit* are used slightly more frequently by girls than boys in COLT. However, in the highest social class groups only male speakers use the form which leads him to suggest that they are the leaders of linguistic change. Subsequent studies also observed higher relative frequencies of *innit* amongst male compared to female speakers (Torgersen *et al.* 2011: 108; Pichler 2013). While this trend runs contrary to the more typical sociolinguistic finding that women typically lead change, at least change from below (Labov 2001: 321), it is perhaps not so surprising given that *innit* is non-standard and potentially stigmatised. As Pichler (2013: 209) points out, the OED defines *innit* as “the vulgar form of *isn't it*” (“*innit, int.*”, OED Online, re-checked in June 2016). The form has also been described as a ‘frequent, informal, and low-prestige pronunciation characteristic of some varieties of BrE’ (Algeo 1988: 181). *Innit* may therefore have covert prestige (Pichler 2013: 209) which could account for the male lead in its use – see the frequently-observed correlation between non-standard/stigmatised variants and male speech (Trudgill 1974: 93; Chambers & Trudgill 1998: 61).

5.2.4. *Cross-varietal investigations of tags*

As mentioned in section 5.1, cross-varietal studies of tags are limited in number and scope. Nässlin (1984) observes some key similarities in tag use between corpora of American and British English (e.g. BE and DO being the most frequent verbs in tags in both varieties), but the study makes few comparisons, as noted by Tottie and Hoffmann (2006: 284). Tottie and Hoffmann (2006) undertake a more systematic comparison of American and British English tags, confirming the aforementioned verb frequency effects. The extent to which different tag functions were used also differed between the two varieties, as did the tags’ overall frequency, which was higher in the British data. The choice of tag auxiliary was also affected by preferences for different syntactic constructions in American vs. British English, e.g. preterite in the former but present perfect in the latter; possessive HAVE in the former but HAVE GOT in the latter.

Other cross-varietal analyses of tags focus primarily or solely on *innit*. Palacios Martínez (2015) compares the frequency of *innit* in British and American English using the spoken component of the BNC compared to the *Corpus of Contemporary American English* (COCA) and the American English *Google Books Corpus*. He finds far fewer examples of *innit* in the

American corpora (74 vs. 1270 in the spoken BNC) even though together these two corpora are over fifty times larger than the BNC data.⁶² As noted in section 5.1, Cheshire *et al.* (2005) similarly examine the frequency of *innit* in multiple datasets, but in the speech of three UK communities: Milton Keynes, Reading and Hull. All of the instances of *innit* occur in working class speech, but as only 36 tokens were found overall, little could be said about their geographical spread. Cheshire *et al.* (2005: 157) note that the rarity of tags overall in their data may be an artefact of the interview situation, as most tags occurred in exchanges between speakers interviewed in pairs rather than between one speaker and the fieldworker.

Pichler and Torgersen (2009) meanwhile examine *innit* in Multicultural London English and the variety spoken in Berwick-upon-Tweed, finding evidence that it is further grammaticalised in the former given its overall higher frequency, additional discourse functions and wider range of syntactic positions in the London data. These findings converge with those of Krug (1998), who used the BNC to show that *innit* is more frequently used in the South of the UK, especially the South West and London, than in the North. Although these North-South differences could indicate that *innit* has its origins in London and has since started to diffuse further geographically (Krug 1998; Cheshire *et al.* 2005: 157), an alternative view is that *innit* arose independently at different times in different localities, given that the change from *isn't it* to *innit* is the result of natural reduction and fusion processes (Pichler 2013: 211).

5.3. The variable context and data extraction

There are four types of auxiliary+pronoun tags in English: negative tags with a positive anchor (115), positive tags with a positive anchor (116), positive tags with a negative anchor (117) and negative tags with a negative anchor (118). The types with polarity reversal are most common, to the extent that some scholars have questioned the grammaticality of those with constant polarity (Arbini 1969: 207; Quirk *et al.* 1985: 813).

⁶² Palacios Martínez (2015) also briefly discusses the frequency of *innit* in various newspapers over time, but these figures are not normalised to account for the different amounts of text from each publication, nor are they separated into prose vs. quotation from reported speech.

- (115) Positive-negative
It's lush, **isn't it?** [MP/158, Tyneside]
- (116) Positive-positive
I was like, "Heard about me already, **have you?**" [NKYF3, Glasgow]
- (117) Negative-positive
Though he's not that bad, **is he?** [Deborah, Salford]
- (118) Negative-negative
And they don't, **don't they?** [Mary, Salford]

This chapter focuses solely on negative tags consisting of a negative auxiliary and personal pronoun (or *there*) appended to a positive anchor clause, i.e. the type in (115). As (116) and (117) have positive tags, these fall outside the variable context. Negative-negative tags are not included in the analysis because they have characteristics that differentiate them from the other tags⁶³ and were infrequent (N=5), confirming previous observations (Hoffmann 2006: 43; Kimps 2007: 271). Invariant lexical tags of the type shown in (119) are not included as they do not consist of a negatively-marked auxiliary with a pronoun and do not alter their form according to the nature of the subject and verb in the anchor clause.

- (119) a. So I don't need to put anything, **right?** [Emily, Salford]
b. And is the proceeds for that going to Children In Need, **yeah?** [Sasha, Salford]
c. Nae power on it, **no?** [NKYM3, Glasgow]

The negative tags were extracted from the Glasgow, Tyneside and Salford transcripts using *AntConc* concordance software (Anthony 2011). The Salford transcription protocol conveniently marked negative tags with '(tg)' to facilitate their extraction. Extracting the tags from the Glasgow and Tyneside transcripts was less straightforward as they lack tagging of

⁶³ The five negative-negative examples in the data feature the following tag tokens: *don't they*, *does he no*, *have they not*, *aren't they not* and *innit*. These examples mirror reports that *not* can appear after the pronoun in tags in Northern British English (Quirk *et al.* 1985: 810) and *no* can occur in such a context in Scottish varieties (Millar & Brown 1979: 28) – the *does he no* token was from the Glasgow dataset.

these items. The search terms used to extract the tags from these therefore consisted of the full gamut of negative auxiliaries including alternative orthographic representations of the same form (e.g. *isn't*, *isnt*, *is nt*) to capture differences in transcription between the files. As my analysis concerns the phonological realisation of the tags (full, reduced or coalesced), it was essential to subsequently listen to the audio files, checking that each tag's orthographic representation was an accurate depiction of its pronunciation (and that the tag does in fact occur in the audio) and that none had been overlooked.

As the concordance software searches only for particular auxiliaries, the extracted tokens were carefully examined so as to remove those that fall outside the variable context, including those that did not constitute negative tags, such as ordinary declaratives with negative auxiliaries. Although tags can be appended to imperatives and interrogatives, such examples are rare (Quirk *et al.* 1985: 813; Tottie & Hoffmann 2006: 289) and all of the examples in my data were appended to declaratives. Full interrogatives as in (120) were excluded. Examples like (121) also fall outside the variable context as the use of *isn't it* here is an isolated follow-up. Follow-ups were excluded as they are not tagged onto an anchor clause spoken by the same speaker but are tagged onto the proposition of the preceding speaker, to express agreement (G. Andersen 2001).

(120) JS/221: I sat up- Michelle's my sister, right, I-- **didn't I** say where's Michelle and Kayleigh? [Tyneside]

(121) IC: I don't like the soaps I- I think Eastenders is a bit depressing

JK: Oh I've gone off that

IC: Em

Fieldworker: I find it really miserable com[pared to everything else

JK: **[Isn't it?]** Uh-huh

[Tyneside]

As well as the standard exclusions of tokens that are ambiguous, unfinished, in false starts or used in reported speech (see Chapter 2, section 2.4), tags with a long pause between the main clause and tag (N=13) were excluded as these appear to be afterthoughts (G. Andersen 2001: 136) or may constitute full interrogatives rather than tags.

(122) It's dead quiet (..) **innit?** [NKYF2, Glasgow]

5.4. The tag variants

The tags within the variable context were assigned orthographic representations according to the extent of their phonetic reduction. The complete set of tag auxiliary realisations in my data is given in Table 5.1, where they are categorised into three types of variant: full, reduced and coalesced. The association of the reduced and coalesced forms with a particular full form in any given row of the table was established by examining the realisation of the tag in relation to the phonology of the auxiliary in the tag that would be expected to appear under Standard English tag formation rules. For example, there were 22 occurrences of *hant*, 13 of which occurred in contexts where the Standard English tag would be *hasn't* and 8 where the tag would be *haven't*. As both *hasn't* and *haven't* have the same vowel [æ] and *hant* could be derived from either form through loss of the medial consonant [s] (*hasn't*) or [v] (*haven't*), *hant* was deemed derivable from either form, as depicted in the table. The first column lists the reduction process that the full tags have undergone in order to arrive at the reduced (and subsequently coalesced) forms. The full and reduced auxiliaries occur with pronouns to form specific variants (e.g. *isn't he*, *isn't it*). The coalesced tags combine the auxiliary and pronoun and the orthographic representation at the end of each tag indicates the pronoun it corresponds to: *-a* ([a], representing “I”), *-e* ([i:], representing “he”), *-it* ([it], representing “it”).

Reduction process	Full tag auxiliary	Reduced tag auxiliary	Coalesced tag
Loss of medial [s]	isn't	int, ain't ⁶⁴	inne, innit ⁶⁵
	wasn't	want	wanna, wannit
	hasn't	hant, hint, ant	hanna
	doesn't	dint, dunt	dunne, dunnit
Loss of medial [d]	hadn't	ant	-
	didn't	dint	dinna, dinne, dinnit
	couldn't	cunt	cunnit
	wouldn't	wunt	wunnit
	shouldn't	shunt	-
Loss of medial [v]	haven't	hant, hint, ant	hanne, hannit
Change in vowel length	aren't	int	-
	weren't	want	werenit
	don't	divn't, dint	-
N/A ⁶⁶	can't	-	-
	won't	-	-
	mustn't	-	-

Table 5.1: Inventory of negative tags in the data

The final /t/ of the full tag auxiliaries can have various realisations including those approximating [t], a glottal stop or zero realisation, but this does not affect my categorisation of tokens into variant types. Indeed, other researchers combine *int* and *in* realisations of “isn't” as belonging to the same category (Cheshire 1981: 370; Pichler 2013: 183). It is instead the loss of medial consonants and/or changes in vowel length from the full forms that lead to tags' categorisation as ‘reduced’. Full tags that have auxiliaries with medial consonants, specifically consonants that are the final phoneme of the auxiliary stem, become reduced tags when they lose these medial consonants (e.g. di[d] + n't → *dint*). Some of these tags have undergone further reduction, e.g. h-dropping (e.g. *hasn't* and *hadn't* → *ant*). Three auxiliaries, *aren't*, *weren't* and *don't*, typically have no stem-final consonants to lose (unless pronounced with /r/) but have long vowels in their full forms (*aren't* [ɑ:nt], *weren't* [wə:nt] and *don't* [dɔ:nt]) which become short vowels in what I have categorised as their reduced alternatives. The form *divn't* ([dɪvənt], N=10), found only in the North East of England (Beal

⁶⁴ *Ain't* appears only once in a tag in the data, with *is* in the anchor clause. The origins of *ain't* are ambiguous (see section 5.2.1), but *isn't* is one of the forms from which it can be derived and it often stands in place of *isn't* in modern use (Cheshire 1981: 366; Anderwald 2002: 118) so it is included as variant of *isn't* here for completeness.

⁶⁵ *Inna* also appears once: ‘I got history last inna?’ [3M6, Glasgow]. This use of *inna* is obscure as it is not clear whether it stands for *isn't I*, which would be non-paradigmatic with the anchor clause, or whether it is a non-standard representation of *haven't I*.

⁶⁶ The modals *can't*, *won't* and *mustn't* only have full realisations in my data.

et al. 2012: 63), differs from the other reduced tags in having an additional [v] and schwa that are not present in the full form *don't*. Although this could feasibly lead to the categorisation of *divn't* as a full variant, here it is categorised as reduced. This decision was taken because the transition from *don't* to *divn't* involves vowel reduction after the initial [d], from a long vowel [ɔ:] to a short vowel [ɪ]. This also places *divn't* with other variants with “non-standard” pronunciation, which was considered more appropriate than conflating these tokens with the canonical full forms.

The coalesced forms in Table 5.1 bear similarities to the reduced variants, as they too have experienced loss of medial consonants and/or change in vowel length from the full forms. The distinction between the reduced and coalesced tags is that in the latter the auxiliary and the pronoun that constitute the tag have become fused as ‘a single morphemic unit’ (G. Andersen 2001: 98). The proposal that coalesced variants are derived from their related reduced variants is consistent with the proposed trajectories for *innit* in the literature (Krug 1998; G. Andersen 2001; Pichler 2013) and arguments that if related forms with different extents of reduction are in variation, the most reduced form is likely to be the most recent (Hopper & Traugott 2003: 125).

Any tags where the phonetic realisation was unclear, sometimes due to quiet audio, overlap from other speakers or sound interference, were excluded from the analysis (N=45). After these exclusions, the remaining number of tags per locality is as follows: Glasgow: N=196; Tyneside: N=271; Salford: N=567.

5.5. Coding

The 1034 negative tag tokens within the variable context were coded for a number of factors deemed likely to impact upon the choice of variant, based on observations from previous studies as reviewed in section 5.2. These factors were chosen to address my three research questions, namely whether tag reduction is subject to the same syntactic-semantic constraints in each of the three communities under study, whether there are correlations with speaker sex and age that are indicative of ongoing change from full to reduced to coalesced forms, and whether there is evidence of grammaticalisation. These factors are explained in turn below.

5.5.1. *Tag variant*

The negative tags were coded as combinations of verbs and pronouns, which were categorised into groups of full, reduced and coalesced variants, as shown in Table 5.1 and explained in section 5.4.

5.5.2. *Standard English representation of tag auxiliary*

Every reduced and coalesced token was coded for its Standard English alternative. This was achieved by considering the phonetic realisation of a given token in relation to the tag that would be expected to occur in this context under Standard English negative tag formation rules. For example, *dint* was deemed to be derived from and represent, on different occasions, Standard English full realisations of DIDN'T, DON'T or DOESN'T, through natural reduction processes (see Table 5.1, section 5.4). Coding for this ensured that I did not conflate all tokens of *dint* as derived from DIDN'T, for example, allowing me to see the versatility of different tag auxiliary forms.

5.5.3. *Paradigmaticity*

The relationship between the anchor clause and the tag, i.e. paradigmaticity, was coded, according to a four-way schema: paradigmatic, semi-paradigmatic, non-paradigmatic and indiscernible. As previously mentioned, tags with auxiliaries that agree with the verb in the anchor clause (or take DO when the anchor clause has a lexical verb) and pronouns that agree in person, number and gender with the subject in the anchor clause are paradigmatic, as in (123). Semi-paradigmatic tokens are those where the tag disagrees, either in relation to the verb (124a) or the pronoun (124b). Tokens where both the auxiliary and pronoun do not agree with the subject and verb in the anchor clause are non-paradigmatic, shown in (125).

(123) Paradigmatic

- a. It's a well-run country, **innit**? [PS/243, Tyneside]
- b. But these things happen, **don't they**? [Bill, Salford]

- (124) Semi-paradigmatic
- a. It said what was left, **wunt it?** [Helen, Salford] (verb does not agree)
 - b. You put it in, **dint she?** [Derek, Salford] (pronoun does not agree)
- (125) Non-paradigmatic
- a. that was some amount of table there, **weren't there?** [NKOF1, Glasgow]
 - b. They changed the comprehensive system **wasn't it** [MD/59, Tyneside]

Many examples with elided subjects and/or verbs could be straightforwardly coded according to paradigmaticity as it was clear from the context what the subject/verb would be if it was realised. Reduced and coalesced variants could be reliably coded for paradigmaticity by considering (i) the Standard English tag that would be expected to occur based on the subject and verb of the anchor clause; (ii) the phonetic realisation of the actual tag token; and (iii) whether the actual tag token could have derived from the Standard English alternative through the reduction processes that are summarised in Table 5.1 in section 5.4. If the answer to (iii) was 'yes', the tag was coded as paradigmatic.

However, sometimes ambiguity ensued, as in 4F5's utterance in (126) (compare the paradigmatic use of *couldn't you* spoken by 4F6) and (127) below. In (126), 4F5 may have been meaning *there's an awful lot of people getting that, int there?* in which case the tag that is paradigmatic. Alternatively, the underlying verb may have been plural, i.e. *there are/were an awful lot of people getting that*, in which case there would be semi-paradigmaticity between the anchor clause and the tag *int there*. A third possibility is that *an awful lot of people* is in canonical subject position followed by an ellipsed verb *is/are* and the progressive form *getting*, i.e. *an awful lot of people [is/are] getting that*, in which case *int there* would be non-paradigmatic. In (127), although there is an overt subject and verb (*we'll be in at six o'clock in the morning*), the statement afterwards which contains a self-correction (*six- well six tomorrow night*) creates a context in which *won't it* is ambiguous. The tag may be paradigmatic and refer to an underlying proposition *it'll be six- well six tomorrow night*, or it could be semi-paradigmatic if it scopes over to *we'll be* where a paradigmatic tag is *won't we*. With examples like these it is impossible to know what the underlying structure and intention of the speakers is, so they were coded as 'indiscernible' in terms of paradigmaticity.

- (126) 4F6: And you could get that thrombosis, **couldn't you?**
4F5: Aye. An awful lot of people getting that, **int there?**

[Glasgow]

- (127) Yeah, well we'll be in at six o'clock in the morning, six- well six tomorrow night,
won't it? [Adam, Salford]

Another important consideration in coding paradigmaticity is that the semi-modals HAVE GOT/HAVE (GOT) TO can take DON'T or HAVEN'T in the appended tag, as shown in (128)-(130). These differences reflect cross-dialectal variability in the status of HAVE (main verb vs. auxiliary) in these semi-modals, which distinguishes British and American English, for example (Tottie & Hoffmann 2006: 291). This highlights the importance of not coding tokens blindly according to coding schema used for the study of a different language variety, but instead considering the patterns within each specific dataset. In my data, examples of type (a) in (128)-(130) below were used categorically or near-categorically in each case. The (b) types were not found at all. Any exceptions to (a) featured another verb in the tag in which case those examples were coded as semi- or non-paradigmatic as appropriate.

- (128) Stative possessive HAVE GOT
a. They've got the ultimate job like, **haven't they?** [PM/85, Tyneside]
b. They've got the ultimate job like, **don't they?**
- (129) Modal of obligation/necessity HAVE GOT TO
a. you've gotta do it that colour, **hant you?** [Gail, Salford]
b. you've gotta do it that colour, **don't you?**
- (130) Modal of obligation/necessity HAVE TO
a. you have to walk up to the top of Blakelaw, **don't you?** [BB/929, Tyneside]
b. you have to walk up to the top of Blakelaw, **haven't you?**

Another auxiliary that poses some difficulties for coding paradigmaticity is *ain't*. As discussed in section 5.2.1, the form has ambiguous historical origins in that it could have derived from any or all of five different auxiliaries through various sound changes (Cheshire

1981: 366; Anderwald 2002: 118). *Ain't* only appeared in one tag token in my data, which was appended to an anchor clause with *is*. Although this example could perhaps have feasibly been considered paradigmatic on the grounds that *is* is a likely origin of *ain't* (Cheshire 1981: 366; Anderwald 2002: 118), as it was only a single occurrence its paradigmaticity was coded as 'indiscernible'.

5.5.4. *Discourse-pragmatic function*

As discussed in section 5.2.2, negative tags have a large range of discourse-pragmatic functions. A number of previous tag studies have relied solely on written transcripts without the corresponding audio, but this may result in overlooking innovative uses of the forms, as Pichler (2016) argues. The lack of audio has also frequently been acknowledged as a drawback in identifying tag functions (Tottie & Hoffmann 2006: 300; Palacios Martínez 2015: 6). After all, intonation contributes greatly to the discourse-pragmatic function (O'Connor 1955; Millar & Brown 1979; Cheshire 1981; Holmes 1982; Nässlin 1984; Algeo 1990; Kimps 2007; Pichler 2013; Kimps *et al.* 2014). For example, tags with falling intonation express greater certainty than those with rising intonation (Holmes 1982: 50; Quirk *et al.* 1985: 811).

Having access to the recordings from Glasgow, Tyneside and Salford, I listened extensively to hear the tags in their discourse context and used cues from the intonation patterns to help identify their function. Intonation was not coded separately from function, though, for two main reasons. Firstly, the fact that intonation contributes substantially to discourse-pragmatic function would prevent the inclusion of both factors in any distributional or regression analysis because they are non-orthogonal. Indeed, Cruttenden (2001: 71) stresses that 'there is no tone-independent establishment of the discourse categories' of utterances. Secondly, UK English dialects do not have uniform intonation. While Glasgow, Tyneside and Salford English all favour rising intonation even with declaratives (unlike RP), the specific types of rises that tend to be used differ between the three: 'rise' (Cruttenden 1997: 133–4) or rise followed by a final fall (Sullivan 2011: 126) in Glasgow; 'rise-plateau' and 'rise-plateau-slump' in Tyneside (Cruttenden 1997: 133–4); and 'rise-slump' in Salford (Cruttenden 2001: 58). To code for tag intonation would therefore not be independent of these intonational patterns and would not be comparable cross-dialectally.

Having consulted previous studies and listened to the tokens in my data in their discourse context, the coding schema used by Pichler (2013) was selected as most appropriate for my dataset, but with one additional category added (‘challenging’) and another labelled differently (‘emphasising’ rather than ‘attitudinal’), for reasons explained in the description of each function below. The six functions, given in Table 5.2, are epistemic, emphasising, challenging, mitigating, involvement-inducing and aligning. Each of these functions is categorised according to its orientation: subjective (speaker-oriented, i.e. expressing speaker attitude) or intersubjective (hearer-oriented, i.e. with intention of protecting the interlocutor’s self-image) (Traugott 2010). The functions are also grouped in terms of whether they are conducive, i.e. intend to elicit a response (particularly agreement) from the interlocutor, or whether they are non-conductive and do not invite such a response.

Function	Orientation	Conduciveness
Epistemic	Subjective	Conductive
Emphasising	Subjective	Non-conductive
Challenging	Subjective	Non-conductive
Mitigating	Intersubjective	Conductive or non-conductive
Involvement-inducing	Intersubjective	Conductive
Aligning	Intersubjective	Non-conductive

Table 5.2: Summary of negative tag functions

The remainder of this section presents these six functions in turn, describing their relationship to categories postulated in previous studies and providing examples from my data.

Epistemic

Epistemic tags are used ‘to reduce speakers’ commitment to their propositions and to seek verification of these propositions from addressees’ (Pichler 2013: 187). The tag therefore functions as an information-seeking device which is subjective in the sense that it is the speaker who “benefits” from the interaction. This epistemic function is consistently attested in previous literature (Millar & Brown 1979; Cheshire 1981; Algeo 1990; Tottie & Hoffmann 2006, 2009; Pichler 2013), albeit with varying labels.⁶⁷ Here I adopt Pichler’s (2013) term

⁶⁷ Millar and Brown (1979: 38) distinguish two types of epistemic tags where the speaker is more certain of his/her proposition with one type than the other. Tottie and Hoffmann (2006: 300) also make such a distinction, terming the former ‘informational’ and the latter ‘confirmatory’. However, in later work they collapse these two categories as ‘there are few if any purely informational tag questions’ (Tottie & Hoffmann 2009: 141).

‘epistemic’ as this captures the fact that the tag concerns factual knowledge and the extent to which the speaker requires validation of this knowledge. Examples (131) and (132) illustrate the use of these tags in my data.

- (131) 00-G1-m04: Know that wee Bolan?
00-G1-m03: Aye, Sam Bolan, **innit**?
00-G1-m04: Jim
00-G1-m03: Jim

[Glasgow]

- (132) Fieldworker: Has anything big ever happened around here (.) at all (.) like some sort of (.) disaster or--
BB/929: ((*To fellow interviewee MP/158*)) Someone got stabbed once, **didn't they?**
Fieldworker: Really?
BB/929: Someone got stabbed once round here and that's about it.
Fieldworker: When was that? What happened?
BB/929: I dunno. Mightn't even been true @ Mightn't even be true, just (.) I heard someone got stabbed once.

[Tyneside]

In (131), 00-G1-m04 asks if 00-G1-m03 knows a particular person who has the surname Bolan. 00-G1-m03 states that this person is called Sam, but hedges the statement by using an epistemic tag (in this case, *innit*) which indicates that he is not completely certain and would like verification. In (132), BB/929's epistemic tag *didn't they* seeks verification of her proposition (*someone got stabbed once*) from her friend MP/158. When MP/158 does not respond, the fieldworker pursues the story further, which leads BB/929 to admit that she is not sure of what happened, or whether it even happened at all.

Emphasising

Although emphasising tags are sometimes called ‘attitudinal’ (Tottie & Hoffman 2006; Pichler 2013) or ‘punctuational’ (Algeo 1990), I use the term ‘emphasising’ to capture the fact

that these tags are used by speakers to emphasise a point to their interlocutors. Emphasising tags are ‘self-centered’ as they ‘point up what the speaker has said’ (Algeo 1990: 446) and are non-conducive because the user does not expect a response from their interlocutor (Coates 1996: 194; Tottie & Hoffmann 2006: 300). However, they are not considered rude or antagonistic (Algeo 1990: 446; Pichler 2013: 189). The speaker is fully committed to the proposition they express, so these tags can indicate that the proposition is an ‘obvious truth’ (Algeo 1990: 446; Pichler 2013: 189). The extracts in (133) and (134) illustrate the use of emphasising tags.

- (133) Janet: So now, what I do (.) I put *Frontline* on him before he goes (.) I put *Frontline* on him the day before (..) so he’s covered when he goes and has his hair cut.
Moira: Well I’ve always had English Bulls, me, **hanna**?
[Salford]

- (134) GB/127: You’ve got countryside that- (.) which is two minutes outside of th-the city centre and you’re into the most beautiful country and you can actually drive your cars still here **can’t you**, you’re not on congested roads as bad as London.
[Tyneside]

Janet’s utterance in (133) is the culmination of a narrative in which her dog had returned from somewhere with fleas. Moira’s response initially seems out-of-the-blue, but the discourse context suggests that she is mentioning that she has always owned English Bull Terriers because they have short hair and do not require much grooming, unlike Janet’s dog. The tag *hanna* (“haven’t I”) here has an emphasising function because it draws attention to a fact that is known by both speakers and one which Moira is fully committed to. In (134), GB/127 is talking about the positive aspects of living in the North East of England. His use of *can’t you* is not intended to elicit a response as there is not a sufficiently long pause between the end of the tag and the next statement for the interlocutor to contribute. GB/127 is sure of his statement and the tag emphasises this.

Challenging

Challenging tags are somewhat similar to emphasising tags in that they are subjective and stress a particular viewpoint, but they differ in one key respect. While emphasising tags are not face-threatening, challenging tags are ‘antagonistic’ (Algeo 1990: 448), as well as ‘impatient’ and sometimes even aggressive (Millar & Brown 1979: 43). Cheshire (1981: 375) considers such tags ‘non-conventional’ and notes that they can indicate that the previous interlocutor’s point or question was ‘a foolish one’. Although Algeo (1988, 1990) and Tottie and Hoffmann (2006) separate these tags into two groups (‘peremptory’ and ‘aggressive’), these two categories differ only in the degree of antagonism (Algeo 1990: 448). However, it is difficult to distinguish between degrees of antagonism and there are relatively few tags of this type in my data. I therefore use one overarching category of challenging tags. This category is an addition to Pichler’s coding schema as she notes that there were no such tags in her data (2013: 193), most likely due to the interview context and a smaller dataset. Extracts (135) and (136) below demonstrate the use of challenging tags.

(135) Sasha: So yeah. So (.) cos- cos- eighteen (.) is what the ends add up to, and that’s divisible by three (.) and it’s divisible six times by three, [you score six points, and then that’s put on your (.) crib-board.

Charlotte: [Yeah.
Crib-board. Right. Do they still have matches in them then?

Sasha: No they have them little metal things, **don’t they?**

Charlotte: I don’t know, I’ve not seen one.

Sasha: Have you not?

Charlotte: No I’ve n- this may surprise you I’ve never played professional dominoes.

Sasha: It’s not entirely professional, is it? But em (.)

Charlotte: Well no it’s amateur cos you don’t get paid for it, that’s true.

Sasha: Exactly.

[Salford]

- (136) Derek: He's been very quiet today, Aaron.
 Barry: Yeah but it was his mate's funeral [yesterday **wannit**? So that's what that'll do.
 Derek: [Yeah.
 [Salford]

In (135), Sasha is certain that the people who she and her father play dominoes with use 'them little metal things' to keep track of their score on their cribbage board, rather than 'matches' as her mother Charlotte suggests. Sasha's response and appended tag *don't they* assert her certainty in her proposition. Her tone expresses frustration which indicates that Charlotte, her mother, should really have known this fact. Charlotte's subsequent response, 'I don't know, I've not seen one' is said with increased pitch to convey annoyance at Sasha's previous challenge. There is further evidence of antagonism between Sasha and Charlotte later in the extract, where Sasha refutes Charlotte's suggestion that the dominoes matches are 'professional'. The tag in (136) is comparatively less aggressive but nevertheless challenging. The prior discourse reveals that both Derek and Barry know Aaron. It is further assumed from Derek's acknowledgement 'yeah' in the final line that both speakers know that Aaron was at a friend's funeral the day before the recording. Barry's use of the tag *wannit* is therefore challenging as it suggests to Derek that his previous point (that Aaron was very quiet that day) was 'a foolish one' (Cheshire 1981: 375), as it should be obvious that Aaron had good reason to be quiet.

Mitigating

The fourth tag type in my data is the mitigating tag, sometimes called a 'softening' tag (Holmes 1984; Tottie & Hoffmann 2009). Mitigating tags 'soften the negative force of interactionally dispreferred moves' (Pichler 2013: 189) and therefore protect solidarity between speakers (Holmes 1982: 58). As such, they are considered negative politeness devices (Holmes 1984: 54). As Pichler (2013: 189-90) notes, mitigating tags can be either conducive, as in (137), or non-conducive, as in (138).

(137) MM/123: I mean, I don't know anybody abroad. So, I <unclear>- you know, like- like, it would be an advantage for you (.) er, emailing people i- in your country, I mean, you know.

MM/456: You've got one friend who lives in New Zealand, **haven't you?**

MM/123: Yeah. Yeah.

[Tyneside]

(138) Emily: I did that *Languages For All* which was awful, cos I didn't wanna, I wasn't really ready to do it anyway (.) but like, none of it went in (.) and then I thought the only way I could actually do this is to do it practically and actually go there. Because she--

Fieldworker: Yeah.

Sally: Yeah but that way you only learn s- conversational French **don't you** and you don't learn the grammar and the syntax and--

Emily: cos we had (...) no you need to do it both ways (.) that's why, that's why Kim and--

Fieldworker: Oh, that's how you pick it up though isn't it?

[Salford]

In (137), MM/456 contradicts MM/123's proposition that she doesn't know anybody abroad, but to reduce the force of the disagreement, she uses the tag *haven't you*. Conducive tags like this one 'challenge addressees to justify the proposition the speaker disagrees with' (Pichler 2013: 189-90). Indeed, MM/123 responds to MM/456 in a way that acknowledges that her earlier claim was not entirely true. In (138), Emily expresses her opinion that the best way for her to learn a language would be to go abroad, where she could use it in everyday interaction. Sally disagrees, noting that 'that way you only learn s- conversational French *don't you* and you don't learn the grammar and the syntax'. Sally's use of *don't you* here is a mitigation device as it reduces the negative force of her disagreement. She does not leave a pause after her use of *don't you* but continues speaking, preventing her interlocutors from responding immediately. This example is consistent with Pichler's (2013: 190) observation that non-conducive mitigating tags aim to end the topic and 'signal that the co-conversationalist's preceding proposition is in some way wrong or inappropriate'.

Involvement-inducing

The involvement-inducing tag arises from Pichler's (2013) coding schema, though previously this function was most often been termed 'facilitating' or 'facilitative' (Holmes 1982, 1984; Coates 1996: 193; Tottie & Hoffmann 2006, 2009).⁶⁸ The defining characteristic of this function is that the speaker is committed to the truth of his/her proposition but uses the tag to induce a contribution to elicit agreement with their interlocutor (Holmes 1982: 53; Holmes 1984: 54; Algeo 1990: 445; Tottie & Hoffmann 2006: 300-1; Pichler 2013: 190). Involvement-inducing tags are therefore typically positive politeness devices (Holmes 1984: 54), but not necessarily so (Tottie & Hoffmann 2006: 300). Examples (139) and (140) demonstrate their use.

- (139) PS/243: Misbehave for our Mam really, that's what it was (..) it was just misbehaving for (.) like didn't want to be telt⁶⁹ what to do it was the discipline, y'knaa?
JS/169: I think we always had that with having like a Step-Mam and Dad on two sides we used to be very good at playing them against each other, **didn't we?**
PS/243: Aye
[Tyneside]
- (140) 00-G2-m01: She's nice, wee Barbara and all **isn't she?**
00-G2-m02: She's a lovely lassie.
[Glasgow]

These tags are appended to a statement to seek an agreeing response from the interlocutor. In both extracts, the interlocutor obliges: in (139), PS/243 responds with the affirmative *aye* while in (140) the speaker 00-G2-m02 responds with a full statement (*she's a lovely lassie*) that agrees with the previous speaker.

⁶⁸ Algeo's (1990) 'confirmatory' function combines both epistemic and involvement-inducing tags. I follow Tottie and Hoffmann (2006: 300) in distinguishing the two.

⁶⁹ *Telt* here means "told".

Aligning

The final function found in the data is aligning. These tags do not feature in many of the tag function inventories in previous research (e.g. Millar & Brown 1979; Algeo 1988, 1990; Tottie & Hoffmann 2006, 2009), but are described in Holmes (1982) as ‘responsive’ tags (though there were none in her data) and Pichler (2013) as ‘alignment signals’. These tags do not elicit a response but are positive politeness devices that signal agreement with the previous speaker (Pichler 2013: 191-2), as illustrated below.

- (141) 3M5: Feels like as if you’ve nae room in here, dunnit?
3M6: It does, **dunt it**, man, pure heavy wee place.
3M5: Wee box, man.
- [Glasgow]

- (142) Fieldworker: The world is changing.
MM/123: Yes (..) Mm it is, **isn’t it?** I mean when I was a child we had snow (.) almost go up to the garages (.) it was so deep.
- [Tyneside]

In (141), 3M6 uses the tag *dunt it* to agree with 3M5’s proposition that it feels like they are in a particularly small room. Similarly, in (142), MM/123 uses the tag *isn’t it* to signal agreement with the fieldworker’s statement that *the world is changing*.

5.5.5. *Locality, speaker sex and speaker age*

Finally, the negative tag tokens were coded for the three external factors: locality, speaker sex, and speaker age. Locality was, as before, coded as Tyneside, Glasgow or Salford. Speaker sex was coded as male vs. female again to investigate whether differences in the frequencies of variant types between the sexes may be indicative of ongoing change. Speaker age was coded according to the two age groups of younger (aged under 27) and older (38 and over) as described in Chapter 2, to enable investigation of language change using the ‘apparent time’ construct (Bailey *et al.* 1991). The consideration of age is particularly important to the present investigation given that the variant types (full, reduced, coalesced)

are considered to represent three stages of a temporal development (Krug 1998; G. Andersen 2001; Hopper & Traugott 2003: 125; Pichler 2013). Thus, age-related effects in the choice of variant type may reflect change in progress.

5.6. Results of quantitative analysis

This section presents the results from my quantitative analysis of negative tags in the Glasgow, Tyneside and Salford data, beginning with distributional analyses in sections 5.6.1-5.6.5 before considering factors together in a regression analysis in section 5.6.6. The aim of these analyses is to examine how syntactic, discourse-pragmatic and social factors condition the choice of full, reduced and coalesced variant types. Also of interest is testing whether these effects are consistent cross-dialectally, and whether the trends are indicative of change towards greater phonetic reduction and ongoing grammaticalisation.

5.6.1. Overall distribution

The relative frequencies of the three variant types in Figure 5.1 differ significantly between the communities ($\chi^2=158.68$; d.f.=4; $p<0.001$), though Glasgow and Salford pattern most alike. Coalesced forms have almost the same frequency in Glasgow and Salford. The difference between the two lies in their frequencies of reduced and full variants. While the Salford data contains almost equal percentages of full and reduced forms (in fact, all three variant types are almost equally frequent), in Glasgow the balance is tipped in favour of reduced forms (46.3%) compared to full forms (21.3%). However, the distribution in Tyneside is strikingly different. While the Glasgow and Salford data has no overall majority tag type, full variants are strongly preferred in Tyneside (70.4%). Reduced forms are rare (7% of tokens) while coalesced forms are more frequent (22.6%).

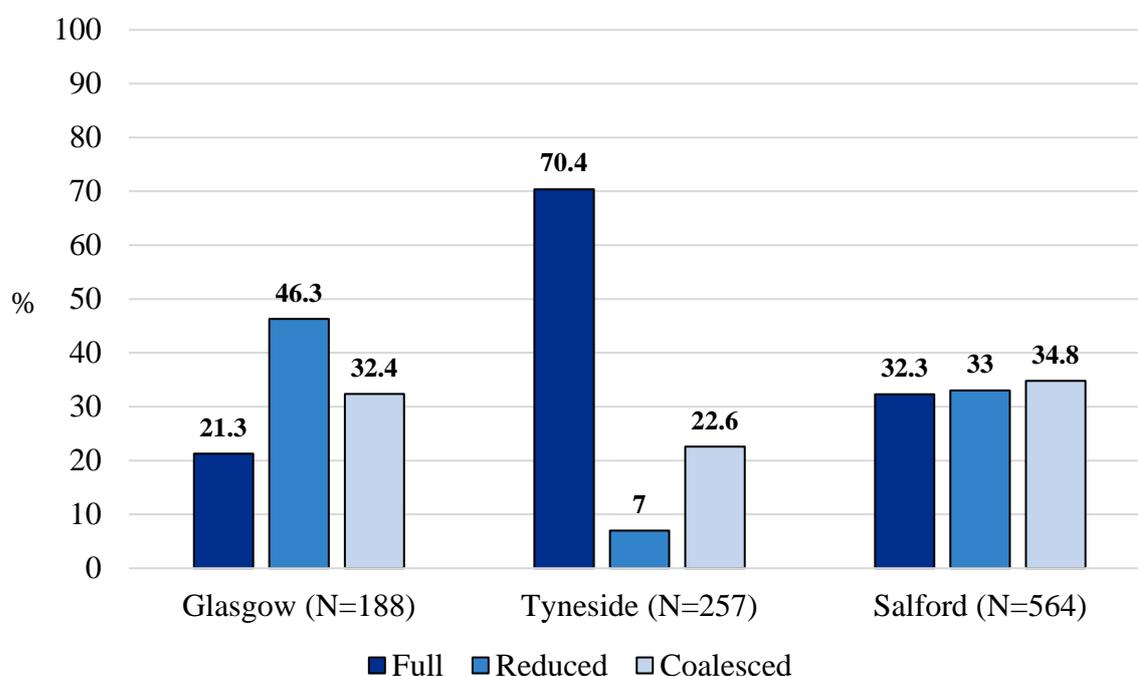


Figure 5.1: Overall distribution of negative tag variants

Under the proposed temporal continuum where full variants are the oldest forms, followed by reduced then coalesced variants (Krug 1998; G. Andersen 2001; Hopper & Traugott 2003: 125), the results in Figure 5.1 can be interpreted in terms of change in progress. Of all the communities, Tyneside has the highest frequency of full variants and the lowest frequencies of reduced and coalesced variants, suggesting that the dialect is the least advanced community in a change towards greater phonetic reduction of negative tags. Although Glasgow and Salford have similar distributions overall, the fact that Glasgow has a lower percentage of full tags and a greater percentage of reduced and coalesced tags combined than Salford could indicate that the reduction process is more advanced in the former. Having said this, further analysis is required to examine the effect of linguistic and social factors on the distribution to see whether these patterns of reduction are one of several tendencies that together are representative of grammaticalisation, as observed elsewhere in the UK (G. Andersen 2001; Pichler 2013, 2016). These factors are explored in the following sub-sections to provide a comprehensive cross-dialectal analysis of negative tags.

5.6.2. *Paradigmaticity*

As already noted, tags typically occur in paradigmatic environments, i.e. those where the tag pronoun agrees in person, number and gender with the subject in the anchor and the tag

auxiliary agrees in type, tense, number and agreement with the anchor verb (or takes DO if the anchor verb is lexical), but not necessarily so. Figure 5.2 shows the percentage of paradigmatic, semi-paradigmatic and non-paradigmatic tags. Tags where the paradigmaticity was indiscernible (see section 5.5.3) were excluded from the analysis (N=43).

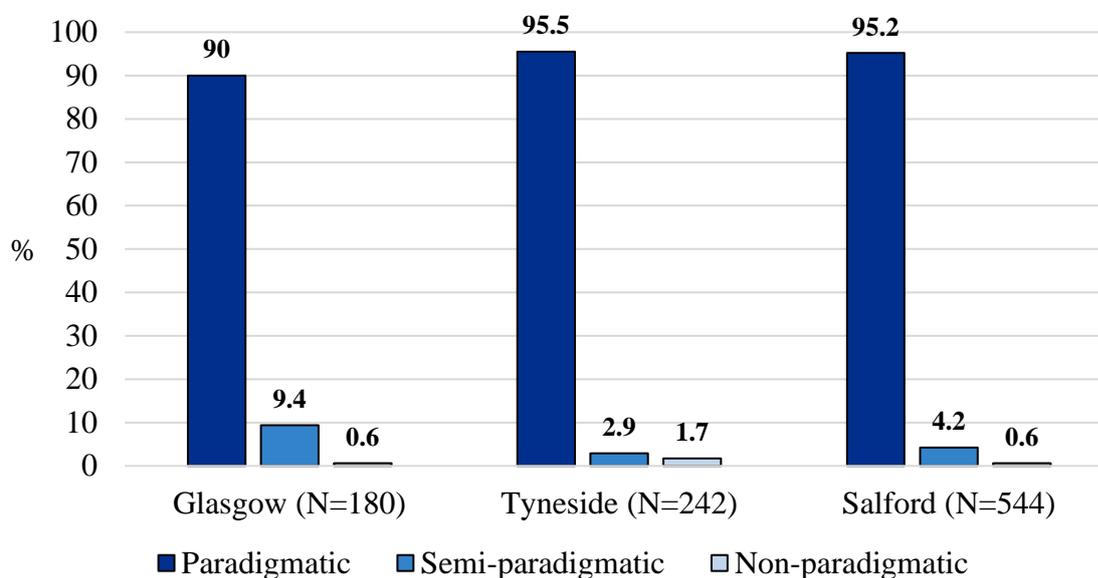


Figure 5.2: Relative frequency of paradigmatic, semi-paradigmatic and non-paradigmatic negative tags in each locality

Paradigmatic tags, i.e. those that comply with Standard English rules of tag formation, constitute the vast majority of tags in all three varieties of English examined here. Semi-paradigmatic tags, which disagree either in terms of the verb or the pronoun in relation to the anchor clause, comprise under 10% of the tokens in each dataset. Non-paradigmatic tags, which disagree in relation to both the subject and the verb in the anchor clause, occur less than 2% of the time in each locale. The tags have therefore hardly expanded their semantic-syntactic environments of occurrence from the canonical ones, especially when compared to the much higher frequencies of non-paradigmatic *innit* (56%), for example, identified in London in COLT (G. Andersen 2001). Nonetheless, the fact that semi-/non-paradigmatic uses *do* occur, albeit infrequently, is noteworthy. Although these could simply be performance errors (see Algeo 1988: 179), they could alternatively represent the very earliest stages of a change. As such, I now examine whether there are tendencies for certain variants to replace particular Standard English alternatives.

Table 5.3 categorises the semi/non-paradigmatic uses of tags in each locale into three groups: semi-paradigmatic (verb), semi-paradigmatic (pronoun), non-paradigmatic. ‘Semi-paradigmatic (verb)’ tags are those where the tag auxiliary does not agree in person, number or tense with the verb in the anchor clause to which the tag is appended. The tags that are ‘semi-paradigmatic (pronoun)’ are those where the auxiliary in the tag is consistent with that in the anchor clause but the pronoun is not co-referential with the anchor clause subject. Non-paradigmatic tokens are those where both the auxiliary and pronoun in the tag disagree with the subject and verb in the anchor clause. The tag auxiliaries and/or pronouns that occur in these three environments are listed in the column ‘Verb/pronoun in tag’. The number of occurrences of each tag variant in these semi-/non-paradigmatic environments is listed in the ‘no. from total’ column, where this figure is divided by the total number of tokens of that particular form in that token sample. For example, the first row for Glasgow shows that *int* is used semi-paradigmatically (disagreeing with the anchor verb) 8 times from a total of 62 uses of *int* in negative tags, which equates to 12.9% of the tokens. For reliability, percentages are calculated only for tags where there are more than 10 tokens in total. The final column shows the Standard English form that would ordinarily feature in the context in which the semi-/non-paradigmatic tag occurred. Comparison of these figures, where higher percentages indicate greater semi-/non-paradigmaticity, will reveal which linguistic environments appear most likely to promote future change in this aspect of negative tag distribution.

	Verb/pronoun in tag	No. from total		Used in place of
Glasgow				
Semi-paradigmatic (verb)	int	8/62	12.9%	AREN'T (7); HAVEN'T (1)
	innit	2/50	4%	WASN'T (1); DIDN'T (1)
	inna	1/1		HAVEN'T (1)
	wasn't	1/2		DIDN'T (1)
	weren't	2/5		WASN'T (2)
	werenit	1/1		WASN'T (1)
	dinna	1/1		MUSTN'T (1)
	can't	1/3		DON'T (1)
Non-paradigmatic	weren't there	1/1		WASN'T it (1)
Tyneside				
Semi-paradigmatic (verb)	divn't	1/10	10%	HAVEN'T/DIDN'T (1)
	innit	1/37	2.7%	MUSTN'T (1)
	weren't	2/6		WASN'T (2)
Semi-paradigmatic (pronoun)	we	1/22	4.5%	I (1)
	you	1/39	2.6%	she (1)
	yous	1/1		you (1)
Non-paradigmatic	wasn't it	1/11	9.1%	DIDN'T they (1)
	wannit	1/11	9.1%	DIDN'T you (1)
	didn't they	1/18	5.6%	WASN'T it (1)
	isn't it	1/37	2.7%	DON'T you (1)
Salford				
Semi-paradigmatic (verb)	wannit	3/23	13%	ISN'T (3)
	wunt	1/11	9.1%	DIDN'T (1)
	want	1/33	3%	ISN'T (1)
	dint	3/43	7%	HAVEN'T (1); HADN'T (1); AREN'T (1)
	don't	3/55	5.5%	DOESN'T (1); DIDN'T (1); WON'T (1)
	dunnit	1/19	5.3%	SHOULDN'T (1)
	won't	1/16	6.3%	AREN'T (1)
	can't	1/11	9.1%	COULDN'T (1)
	int	1/56	1.8%	HAVEN'T (1)
	innit	1/125	0.8%	WASN'T (1)
	haven't	1/4		DIDN'T (1)
	Semi-paradigmatic (pronoun)	we	2/16	12.5%
she		2/19	10.5%	it (1); you (1)
you		1/80	1.3%	they (1)
they		1/97	1%	you (1)
Non-paradigmatic	dunnit	1/19	5.3%	DON'T you (1)
	int it	1/29	3.4%	DIDN'T they (1)
	innit	1/125	0.8%	WOULDN'T they (1)

Table 5.3: Distribution of semi-paradigmatic and non-paradigmatic negative tags

Although the low numbers of tokens in the cells of Table 5.3 naturally impact upon the robustness of the conclusions that can be drawn, there are some interesting tendencies to be remarked upon. A range of auxiliaries feature in semi-paradigmatic uses of tags in Glasgow, most of which belong to the BE paradigm. Most notably, *int* is used 12.9% of the time in semi-paradigmatic environments, most often in place of AREN'T. Although this result could reflect a possibility of deriving *int* from AREN'T (see Hypothesis 2 from G. Andersen (2001) in section 5.2.1), it could also suggest levelling of the present-tense BE paradigm in negative tag formation, since these examples show lack of agreement between the non-3SG subject/verb in the anchor clause and the 3SG verb in the tag. This replacement of forms within the BE paradigm operates in the opposite direction for preterite BE, as results show that non-3SG *weren't* and *werenit* can be used with 3SG anchors that in the standard would have WASN'T tags, in both the Glasgow and the Tyneside data. Indeed, negative environments have been found to promote non-standard *were* usage, including in negative tags (Cheshire 1982: 45; Tagliamonte 1998: 165; Cheshire & Fox 2009).

Unlike the Glasgow data, the Tyneside and Salford datasets include non-paradigmatic tags. As (143) shows, these non-paradigmatic tags from Tyneside have scope over the bracketed part of the sentence. Underneath each sentence in double quotation marks is what is assumed to be the underlying proposition and the tag as it would be derived canonically. These examples show that non-paradigmatic tags do not occur randomly: an underlying proposition is derivable that, if expressed aloud, would have that particular tag appended in Standard English (see Coupland 1988: 36; Krug 1998).

- (143) a. Yeah they changed [the comprehensive system **wasn't it**]? [MD/59]
 "It was the comprehensive system that they changed, wasn't it?"
- b. I was- I was like sixteen in August but you leave in [July or something now **isn't it**]? Or in June? [PS/243]
 "It is July or something now that you leave, isn't it?"
- c. You went to [the game with the riot **wannit**]? [P/416]
 "It was the game with the riot that you went to, wannit?"

- d. It was [Paul Islington and that that organised that one, **didn't they**] [AS/149]
“Paul Islington and that organised that one, didn't they?”

In Salford, all three non-paradigmatic tags feature *it*, most likely because it is the least specific of the pronouns and is therefore susceptible to being used in non-standard semantic-syntactic contexts (Krug 1998):

- (144) a. No, they put a stop to everything **int it**? [Gail]
b. It does send you funny, that, dunnit? Cos you turn, **dunnit**? [Gail]
c. so (.) social services would sort us out with a bigger house (.) and put us all in one, **innit**? [Janet]

Therefore, while semi- and non-paradigmatic uses of negative tags are rare, the linguistic and discourse context in which the variants occur helps us to understand why these non-standard uses arise. As outlined above, these reasons include levelling across a verb paradigm and appending tags to the underlying proposition rather than the literal expression. Tags that are not paradigmatic constitute only 5.5% of my total dataset (55/1009), so they are excluded from further analysis in this chapter, as are the tags with indiscernible paradigmaticity that were excluded earlier (4.2%, 43/1009). Subsequent analyses will therefore be based on the remaining 911 tokens.

5.6.3. *Verb and pronoun type*

As the results so far have shown, there are many auxiliary+pronoun combinations in the data with various phonetic realisations. The analyses in this section give insight into whether the process of tags becoming reduced and/or coalesced has advanced in a wholesale manner or whether particular verb types, due to their frequency or phonological structure, promote the occurrence of more phonetically-reduced variants. Cross-dialectal comparison of these factors allows us to see whether these effects are specific to certain communities or more widespread.

The most frequently-used BE tags are those with ISN'T (N=360). These are expected to promote the reduction and coalescing of tags the most, given their high frequency (Bybee & Hopper 2001; Bybee 2003; Krug 2003). The distribution of these ISN'T tags according to pronoun type is shown in Table 5.4, where the cells with key findings are highlighted.

	isn't		int		innit		inne		Total N
	%	N	%	N	%	N	%	N	
Glasgow ⁷⁰									
it	14.1%	12	35.3%	30	50.6%	43			85
he	0%	0	90%	9			10%	1	10
she	0%	0	100%	12					12
Tyneside									
it	50.9%	27	0%	0	49.1%	26			53
he	-	3	-	0			-	2	5
she	-	2	-	4					6
there	-	4	-	1					5
Salford									
it	7.1%	11	17.3%	27	75.6%	118			156
he	7%	1	57%	8			36%	5	14
she	-	0	-	2					2
there	0%	0	100%	12					12

Table 5.4: Distribution of ISN'T tag variants with each pronoun type, per locality

Where an ISN'T IT tag is required, *innit* constitutes around 50% of the tokens in the Glasgow and Tyneside data, and an even larger proportion (75.6%) in Salford. *Innit* is the majority variant in this context in each of the communities except Tyneside, where it is ever so slightly outweighed by *isn't it* (50.9%). *Isn't it* is, in contrast, used very little by Glasgow and Salford speakers, who use *int it* more often; Tyneside speakers do not use *int it* at all. ISN'T tags also occur with *he*, *she* and *there*, but at varying frequencies across the communities. In Glasgow, tags with *he* and *she* occur with *int* near-categorically, aside from one token of *inne* ("isn't he"), while Tyneside and Salford exhibit a little more variation in this regard.

⁷⁰ A row for ISN'T tags with *there* is not included for Glasgow as there were no tokens of this type in the data.

The fact that *innit* forms a substantial percentage of ISN'T IT tags in Glasgow, Tyneside and Salford is consistent with the general trend towards increased use of *innit* in UK English, as reported in other varieties (G. Andersen 2001; Cheshire *et al.* 2005; Torgersen *et al.* 2011; Palacios Martínez 2015; Pichler 2016). Glasgow and Salford appear particularly advanced in this regard. However, Tyneside patterns differently – while *innit* constitutes nearly half of the data, the other tokens are all *isn't it*. Thus, the intermediate stage in the development from *isn't it* to *innit*, namely the reduced form *int it*, is not found in the Tyneside data. However, the reduced form does exist in the dialect (used with *she* and *there*). This is a curious situation which could be indicative of further factors impacting upon variant choice, e.g. Tyneside may exhibit more marked social patterns in the choice of variant type which might account for their distinctive overall distribution.

AREN'T tags (N=81) near-categorically feature full variants. WEREN'T tags (N=9) are mostly full realisations but undergo reduction in Salford.⁷¹ As WASN'T tags (N=78) are more variable, these are presented in Table 5.5.

	wasn't		want		wannit		wanna		Total N
	%	N	%	N	%	N	%	N	
Glasgow									
it	-	0	-	3	-	2			5
Other ⁷²	-	1	-	0					1
Tyneside									
it	52.9%	9	5.9%	1	41.2%	7			17
I	-	1	-	1			-	1	3
Other	-	5	-	1					6
Salford									
it	0%	0	32.1%	9	67.9%	19			28
I	-	0	-	1			-	0	1
Other	0%	0	100%	17					17

Table 5.5: Distribution of WASN'T tag variants with each pronoun type, per locality

⁷¹ AREN'T tags categorically take *aren't* in Tyneside (N=18) and Salford (N=60). In Glasgow, they are realised as *aren't* twice and *int* once. WEREN'T tags are categorically *weren't* in Glasgow (N=2) and Tyneside (N=4), but *want* in Salford (N=3).

⁷² The items in the 'Other' categories are as follows. Glasgow: *he*; Tyneside: *he, she, there*; Salford: *he, she, we, you, there*.

As was the case for ISN'T IT tags, a substantial proportion of WASN'T IT tags are coalesced as *wannit*, with relative frequencies ranging from around 40% in Glasgow and Tyneside (though the Glasgow percentage is based on low Ns) to 67.9% in Salford. These percentages tally closely with those already observed for ISN'T IT, suggesting that although the ISN'T IT forms are more frequent, the IS and WAS tags behave similarly in their propensity to coalesce with *it*. Each locale's broader patterns for ISN'T IT are similarly reflected in the data for WASN'T IT. In Salford, the reduced tags are again the second most frequent variant, followed by full realisations (here with zero occurrences). In Tyneside, reduced tags are once again the least-used variant, while full forms are a slight majority (52.9%). As was the case for ISN'T IT, the Tyneside WASN'T IT tags are split fairly evenly between the two extremes of full and coalesced variants. Token numbers are low for the WASN'T tags with other pronouns (especially for Glasgow), but Tyneside's preference for full variants prevails with other pronouns while Salford speakers categorically use reduced tags.

HAVE tags

There are less than ten tokens of HASN'T with each pronoun type, meaning that any percentages calculated would be unreliable. For this reason, only the main trends are summarised here (see Appendix D for the raw frequencies). The results are consistent with those for BE: (i) Tyneside speakers tend to use full variants; (ii) Glasgow speakers categorically use reduced tags; (iii) Salford speakers tend to use reduced tags but do use coalesced variants where it is possible to do so, i.e. with *it* and *he*. HAVEN'T tags are similarly infrequent but once again, Tyneside speakers prefer full variants (this time, categorically). Speakers from Glasgow are more variable, making use of full and reduced variants, while Salford speakers use full, reduced and coalesced variants.⁷³ HADN'T tags do not occur in Glasgow, occur twice in Tyneside as full variants and once in Salford with the reduced form *ant*.

⁷³ Glasgow – 1 full, 1 reduced; Tyneside – 13 full; Salford – 3 full, 10 reduced (*hant* and *ant*), 1 coalesced (*hanna*).

Just as was the case with the BE and HAVE tags, the Glasgow speakers mainly use reduced and coalesced forms of DOESN'T, Salford speakers tend to use reduced tag variants (*dint* and *dunt*) except with *it* where *dunnit* is preferred, and Tyneside speakers prefer full forms but with some use of *dunnit* (for full details, see Appendix E).

Contrary to every other tag type considered thus far, there is one environment where Salford speakers rarely use reduced or coalesced variants – DON'T tags.

	don't		divn't		dint		Total N
	%	N	%	N	%	N	
Glasgow							
they	-	5	-	0	-	2	7
you	-	3	-	0	-	1	4
I	-	0	-	0	-	1	1
Tyneside							
you	63.6%	7	36.4%	4	0%	0	11
we	-	1	-	0	-	0	1
they	58.3%	7	41.7%	5	0%	0	12
Salford							
you	100%	23	0%	0	0%	0	23
we	-	1	-	0	-	0	1
they	96.2%	25	0%	0	3.8%	1	26

Table 5.6: Distribution of DON'T tag variants with each pronoun type, per locality

Data is sparse for Glasgow, but we can see that *don't* is preferred overall. It is no surprise that *divn't* only appears in the Tyneside data, where it is the second most frequent variant; as mentioned earlier, *divn't* is specific to the North East of England (Beal *et al.* 2012: 63). Yet again, Tyneside speakers use full variants the majority of the time for DON'T. The Salford data, on the other hand, exhibits very different trends from the other two locales and the other tag types examined thus far. While the results so far for Salford reveal a highly variable negative tag system where most tags are coalesced or reduced, the data for DON'T shows that speakers in this area near-categorically use the full variant *don't*. In fact, there is only a single instance of *dint* in 50 tokens of DON'T.

Earlier I noted that *dint* could be used for DOESN'T in Salford, so the form is available for DO tags overall. The reason why *dint* is rarely used for DON'T likely lies in the fact that it is monosyllabic. ISN'T, WASN'T, HASN'T, HAVEN'T and DOESN'T all have two syllables and undergo some reduction or coalescing in Salford, whereas speakers categorically use full variants for the monosyllabic AREN'T and DON'T. Indeed, erosion is characterised by polysyllabic items becoming monosyllabic as well as the replacement of sound clusters and vowel reduction (Heine 1993: 107). The polysyllabic verbs, which provide more phonetic material, are therefore more prone to this type of reduction. DON'T tags also have no coalesced variants, suggesting that reduction and fusion is more difficult in this environment. The pronouns *they*, *you* and *we* used in DON'T tags in Salford are in fact not represented as part of any coalesced tag in the entire set of negative tag tokens from any locality. Their initial consonants [ð], [j] and [w] respectively may be more difficult to coalesce with an auxiliary than, for example, the vowel in *I* or the vowel in unstressed *he* which can also be pronounced without /h/ (Trudgill 2004: 72). The proposal that *dint* is used by Salford speakers only in place of polysyllabic auxiliaries is consistent with its use in DIDN'T tags, shown in Table 5.7.

	didn't		dint		dinnit		dinne		dinna		Total N
	%	N	%	N	%	N	%	N	%	N	
Glasgow											
you	-	2	-	2							4
they	-	1	-	0							1
Tyneside											
I	-	3	-	0					-	1	4
he	-	6	-	0			-	1			7
it	-	5	-	0	-	0					5
you, she, we, they, there	100%	37	0%	0							37
Salford											
I	-	0	-	2					-	0	2
he	41.7%	5	50%	6			8.3%	1			12
she	-	2	-	2							4
it	-	0	-	1	-	3					4
you	18.2%	2	81.8%	9							11
we	-	1	-	3							4
they	16.7%	2	83.3%	10							12

Table 5.7: Distribution of DIDN'T tag variants with each pronoun type, per locality

Although low token numbers prevent close analysis of each verb form and pronoun combination, we can see that coalesced variants are infrequent but do appear in the Tyneside and Salford data. Full variants are used cross-dialectally, constituting the majority of tags in Tyneside but a much smaller proportion in Salford tokens, where *dint* is more frequent overall (Tyneside speakers meanwhile do not use *dint* at all). Therefore, while both Glasgow and Salford speakers can use *dint* in negative tags to represent either *don't* or *didn't*, in the latter community *dint* is near-categorically equivalent to *didn't*.

Tags with modal verbs

Tags containing CAN'T, WON'T and MUSTN'T occur categorically with the full forms *can't*, *won't* and *mustn't*, respectively, in the data.⁷⁴ The remaining modal verbs that appear in negative tags in the data, namely the polysyllabic COULDN'T, WOULDN'T and SHOULDN'T, exhibit some phonetic variation. The full list of variants and their frequencies is given in Appendix F. Though based on low token numbers, the trends for these tags are consistent with the previous observations for other verb types, e.g. Tyneside modal tags never have reduced variants, while these are the most frequent variants for Salford speakers.

Summary

Below, I summarise the broader correlates of tag type and verb type within the negative tag system of each dialect as a whole to provide insights into how change from full to reduced to coalesced tag variants has progressed across the different verb types. Taking each locality in turn, the following tables show whether each variant type (full, reduced, coalesced) is attested. A tick in a cell indicates that the variant type was used at least once for a particular auxiliary. Highlighted cells are of primary focus, since in these contexts the total number of tokens is greater than 10 and thus are more reliable than the white rows where cell counts are less than 10. The absence of a tick for a given cell does not necessarily indicate that it is impossible in the dialect as corpora cannot provide negative evidence, but in the highlighted cells in particular, this suggests infrequency. Cells with diagonal shading are those where a variant type was not attested in any of the dialects studied. Those with a dash are where tags with a given verb did not occur in a specific dataset (e.g. the Glasgow data featured no DIDN'T tags).

⁷⁴ The number of occurrences is as follows: CAN'T=12; WON'T=15; MUSTN'T=1.

As the relative frequency of each variant has already been established in the preceding parts of this section, this is not referenced again here – only the presence of each variant type is noted, to see overarching trends. The overall percentage of environments in which each variant type occurred is also given, in the final row of each table. Here, the number of environments in which a given variant occurs is divided by the total number of contexts in which it could have occurred, and the result multiplied by 100. The contexts in which it could have occurred exclude those with diagonal shading and those with a dash as mentioned above. A variant that occurs in a high percentage of possible environments has greater versatility, suggesting more advanced change from full to more phonetically-reduced variants.

As the grey shading in Table 5.8 indicates, the only verb types for which there are more than 10 tokens in Glasgow are *ISN'T* and *DON'T*, both of which are realised in full and reduced form (and, for *ISN'T*, coalesced also). The percentages in the final row show that full and reduced variant types are similarly versatile, appearing in over three quarters of the linguistic environments in which they can be used. Coalesced forms occur in a slightly lower percentage of available environments than reduced forms, which is expected because the former consist of particular verb+pronoun combinations and thus have a more restricted subset of environments in which they can occur (but note that these environments *were* attested in the data, hence the cells are left blank – aside from the coalesced cell for *DIDN'T* marked 'n/a' where there was no *DIDN'T*+pronoun combination that would allow for coalescing). Nevertheless, the percentage of environments in which coalesced forms occur is still fairly high, at 66.7%. Furthermore, there is an implicational hierarchy whereby coalesced forms only occur where there is also evidence of tag reduction, which supports the posited derivation of coalesced forms as a third stage in the process of phonetic reduction and fusion of tags (Krug 1998; G. Andersen 2001: 105–6). It also reflects the gradual nature of grammaticalisation, which results in layers of old and new forms in variation with one another (Lehmann 1995). All four contexts in which coalesced tags are used feature verbs with two syllables, though not all of the two-syllable verb forms are coalesced. The monosyllabic verb forms (*AREN'T*, *DON'T*, *CAN'T*, *WON'T*) are not coalesced with a subsequent pronoun and also had low rates of reduction (if any), which supports the earlier suggestion that verbs with less phonological material are not as susceptible to reduction as those that are polysyllabic.

	Full	Reduced	Coalesced
ISN'T	✓	✓	✓
AREN'T	✓	✓	
WASN'T	✓	✓	✓
WEREN'T	✓		
HASN'T		✓	
HAVEN'T	✓	✓	
DOESN'T		✓	✓
DON'T	✓	✓	
DIDN'T	✓	✓	-
CAN'T	✓		
WON'T	✓		
COULDN'T	✓	✓	
WOULDN'T		✓	✓
SHOULDN'T	✓		
	78.6% (11/14)	83.3% (10/12)	66.7% (4/6)

Table 5.8: Overall distribution of negative tag variants per verb type in the Glasgow data

The Tyneside negative tag system differs from that in Glasgow. Full variants are used for every single verb type, but reduced variants only occur in 25% of possible linguistic environments, namely with ISN'T, WASN'T and DON'T. ISN'T and WASN'T are the two most frequent tag types in the data (not only for Tyneside but for the other areas too). Indeed, high-frequency constructions are prone to phonetic reduction (Bybee & Hopper 2001; Bybee 2003; Krug 2003). Coalesced tags, in contrast, occur in a high proportion of possible environments (6 out of 7). Unlike in Glasgow, these do not necessarily occur in contexts where reduced variants are also used. Perhaps the transition from tags being reduced to coalesced has progressed faster in Tyneside than in Glasgow. Tyneside speakers' overall majority variant type is the full tag, so in their system the main distinction appears to be between full tags and, where the environment allows it, coalesced forms. One would usually expect layering of the older and newer forms (Lichtenberk 1991: 37; Hopper 1991: 22), but perhaps an additional linguistic process is affecting the distribution of variants. For example, /t/-glottaling typically does not occur before a pause but one environment in which it can operate is in tags such as *isn't it*, i.e. *isn[ʔ] it*, as Docherty *et al.* (1997) observe for Tyneside English. As noted in section 5.4, tag auxiliaries classified as reduced could have various realisations of final /t/, as it was the loss of auxiliary-medial consonants and/or a difference in vowel quality between

full and reduced tags that distinguished the two groups. However, in the transition from reduced to coalesced forms (e.g. *int it* → *innit*; *dunt he* → *dunne*; *dint I* → *dinna*), there is subsequent loss of the word-final /t/ phoneme of the auxiliary. It is therefore conceivable that a variety of English where there is greater use of glottalised-/t/ in this environment in tags, a reduction process in itself, might have higher rates of further reduction and coalescing than a variety where [t] is more likely to occur. Under this account, we would predict Tyneside to have a higher rate of /t/-glottaling than Glasgow and Salford. This hypothesis remains for future investigation as it is outside the scope of the present study.

	Full	Reduced	Coalesced
ISN'T	✓	✓	✓
AREN'T	✓		
WASN'T	✓	✓	✓
WEREN'T	✓		
HASN'T	✓		✓
HAVEN'T	✓		
HADN'T	✓		
DOESN'T	✓		✓
DON'T	✓	✓	
DIDN'T	✓		✓
CAN'T	✓		
WOULDN'T	✓		✓
SHOULDN'T	✓		
	100% (13/13)	25% (3/12)	85.7% (6/7)

Table 5.9: Overall distribution of negative tag variants per verb type in the Tyneside data

Salford provides a larger and more variable dataset, as Table 5.10 below shows. Just like the Tyneside speakers, Salford speakers use coalesced variants in every environment where it is possible to do so. Just as observed in Glasgow, there is an implicational hierarchy where in every one of these contexts, reduced variants also occur. Reduced variants occur in the majority of possible environments, to a greater extent than in Tyneside and Glasgow. The only context in which reduced variants are not attested where they are documented in the other communities is AREN'T tags. AREN'T is one of the few verb types, along with DON'T and WEREN'T, that consists of a single syllable; for this reason, AREN'T tags may be less prone to erosion. The absence of full realisations with WEREN'T and HADN'T is likely due to these tags'

low number of occurrences, combined with the fact that full variants are dispreferred overall in Salford.

	Full	Reduced	Coalesced
ISN'T	✓	✓	✓
AREN'T	✓		
WASN'T		✓	✓
WEREN'T		✓	
HASN'T	✓	✓	✓
HAVEN'T	✓	✓	✓
HADN'T		✓	
DOESN'T	✓	✓	✓
DON'T	✓	✓	
DIDN'T	✓	✓	✓
CAN'T	✓		
WON'T	✓		
COULDN'T	✓	✓	✓
WOULDN'T	✓	✓	✓
SHOULDN'T	✓	✓	
MUSTN'T	✓		
	81.2% (13/16)	92.3% (12/13)	100% (8/8)

Table 5.10: Overall distribution of negative tag variants per verb type in the Salford data

5.6.4. Discourse-pragmatic function

The final linguistic analysis in this section concerns whether the choice of full, reduced or coalesced variants correlates with the tag's discourse-pragmatic function in ways that suggest grammaticalisation. Figure 5.3 firstly reveals the extent to which speakers in different communities use tags for the same functions. Involvement-inducing is the most common tag function in every locale, just as Tottie and Hoffmann (2009) found in the *Longman Spoken American Corpus* (LSAC). In comparison with Tottie and Hoffmann's (2009) British English data from the spoken BNC, my data has a lower relative frequency of epistemic tags and the higher frequency of aligning tags. These differences are likely due to methodological differences between the BNC data compared to my own, e.g. participants in the BNC research were recruited from around the UK to record their everyday interactions over a period of a

few days, with no researcher control over who they conversed with or in what setting (Burnard 2007). Nevertheless, the relatively high frequencies of involvement-inducing tags across Glasgow, Tyneside, Salford, LSAC and the BNC suggests that this function is typical in speech. The rarity of challenging tags in all five of these datasets (<2% in each) suggests that this tag function is not representative of everyday spoken interaction. The fact that tags of that type occurred so frequently in Cheshire's (1981, 1982) recordings of working class teenagers in Reading is a reflection of the specific vernacular culture that those speakers were found to participate in.

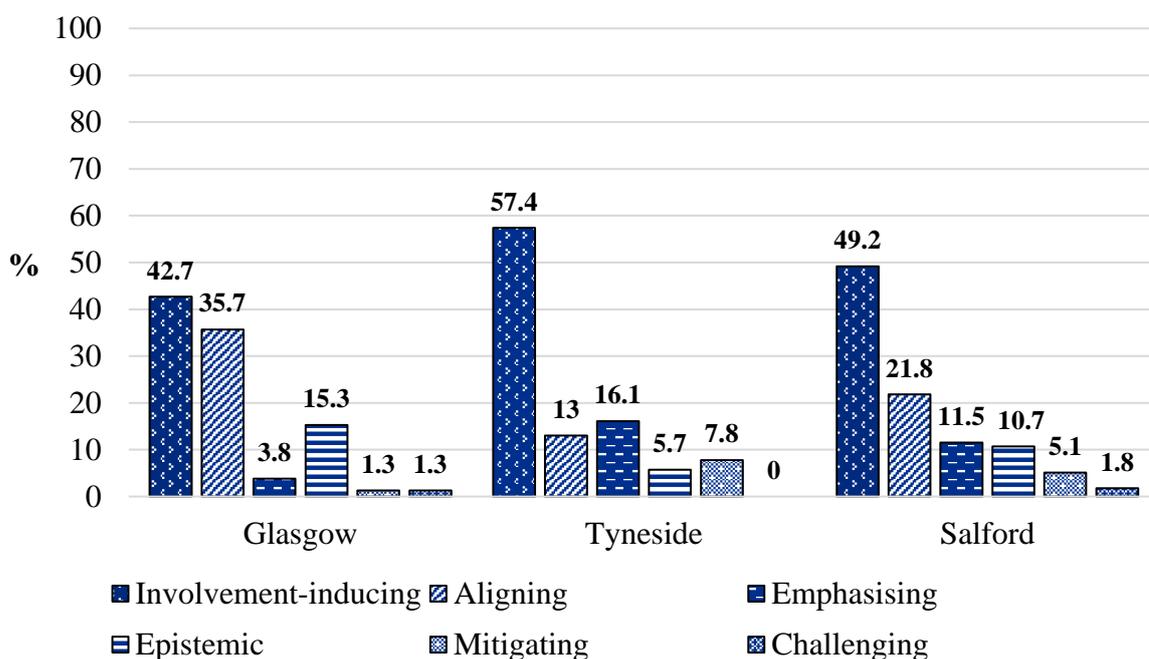


Figure 5.3: Distribution of negative tag functions, per locality

Figure 5.4 to Figure 5.6 that follow show the distribution of full, reduced and coalesced variants according to the functions outlined in section 5.5.4 for each community in turn, excluding tokens where the function could not be discerned (N=43). *Innit* is separated from other coalesced variants in these figures because it has received specific attention in the literature. Furthermore, it has high frequency compared to other coalesced variants which could be indicative of it being further advanced along the cline of grammaticalisation. In turn, this could correlate with intersubjective and/or non-conductive functions that are similarly associated with more advanced grammaticalisation (Traugott 2010; Pichler 2013). Although *innit* and other coalesced variants occur in a subset of the environments in which the full and

reduced tags can occur (see section 5.6.3), this is not problematic because I compare how the frequencies of each variant change from function to function.

Figure 5.4 for Glasgow excludes tags with emphasising (N=6), challenging (N=2) and mitigating (N=2) functions given their low frequency. Full variants are used in the greatest proportions when tags have epistemic and aligning functions. The frequency of reduced variants is meanwhile highest amongst the intersubjective functions of involvement-inducing (inviting responses) and aligning (agreeing with an interlocutor), which is consistent with the hypothesis that phonetic reduction would correlate with the expansion of function from subjective to intersubjective meanings. However, the results for *innit* do not support this trajectory. *Innit* is most frequently used for the function deemed to be the original meaning of tags historically – epistemic (Tottie & Hoffmann 2009). Other coalesced tags are low frequency but constitute a greater proportion of the conducive functions (epistemic and involvement-inducing) than aligning. The trends therefore run contrary to Pichler’s (2013: 207) findings in Berwick-upon-Tweed, where *innit* was associated with non-conductive functions and it was suggested that this tendency ‘may be symptomatic of a more general pattern whereby reduced tag variants are not usually response-eliciting or hearer-oriented’.

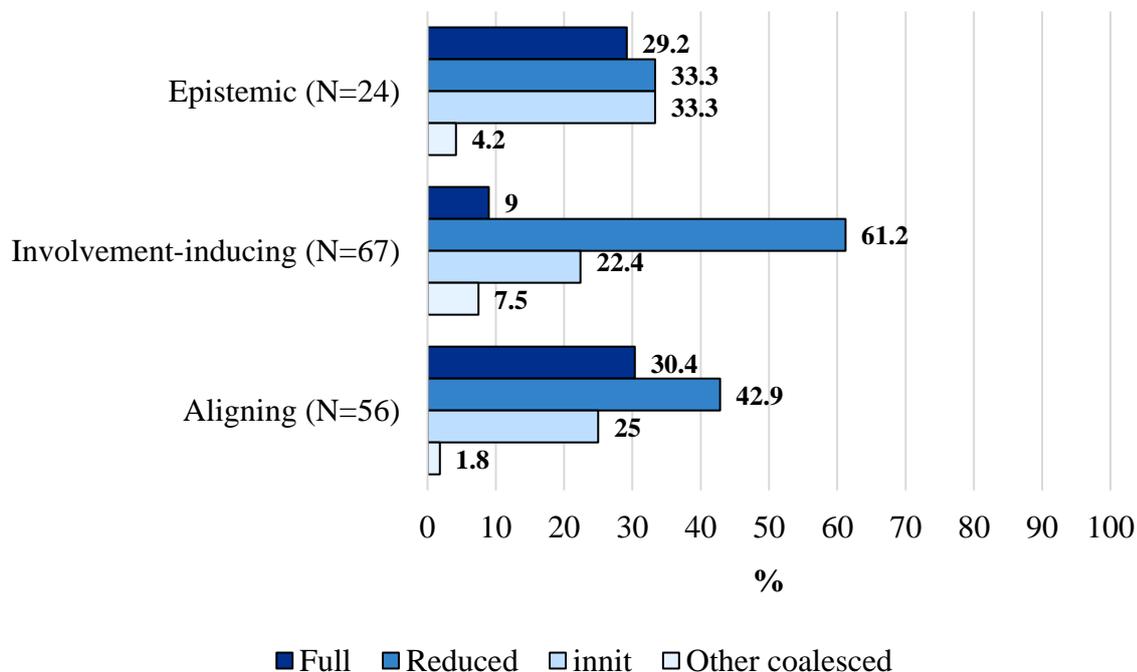


Figure 5.4: Distribution of negative tag variants according to function in Glasgow

Turning to the results for Tyneside, Figure 5.5 excludes challenging tags since they did not occur in this dataset. The distribution emphasises the dominance of full tags in Tyneside, as they are the most frequent variant for every single function. However, they are especially associated with epistemic and involvement-inducing functions – i.e. conducive functions. In contrast to Glasgow where the alignment function promoted the use of full variants the most, the opposite is true in Tyneside – reduced and coalesced tags are more frequently used for this function than any other. The alignment function is the only one that is categorically both non-conductive and intersubjective (see section 5.5.4). Thus, this result is in keeping with the proposal that phonetically-reduced variants tend to be associated with intersubjective and non-conductive functions (Pichler 2013: 207), which are indicative of the most advanced stages of grammaticalisation (Traugott 2010; Pichler 2013). However, *innit* and the other coalesced forms do not appear to have clear functional correlates here.

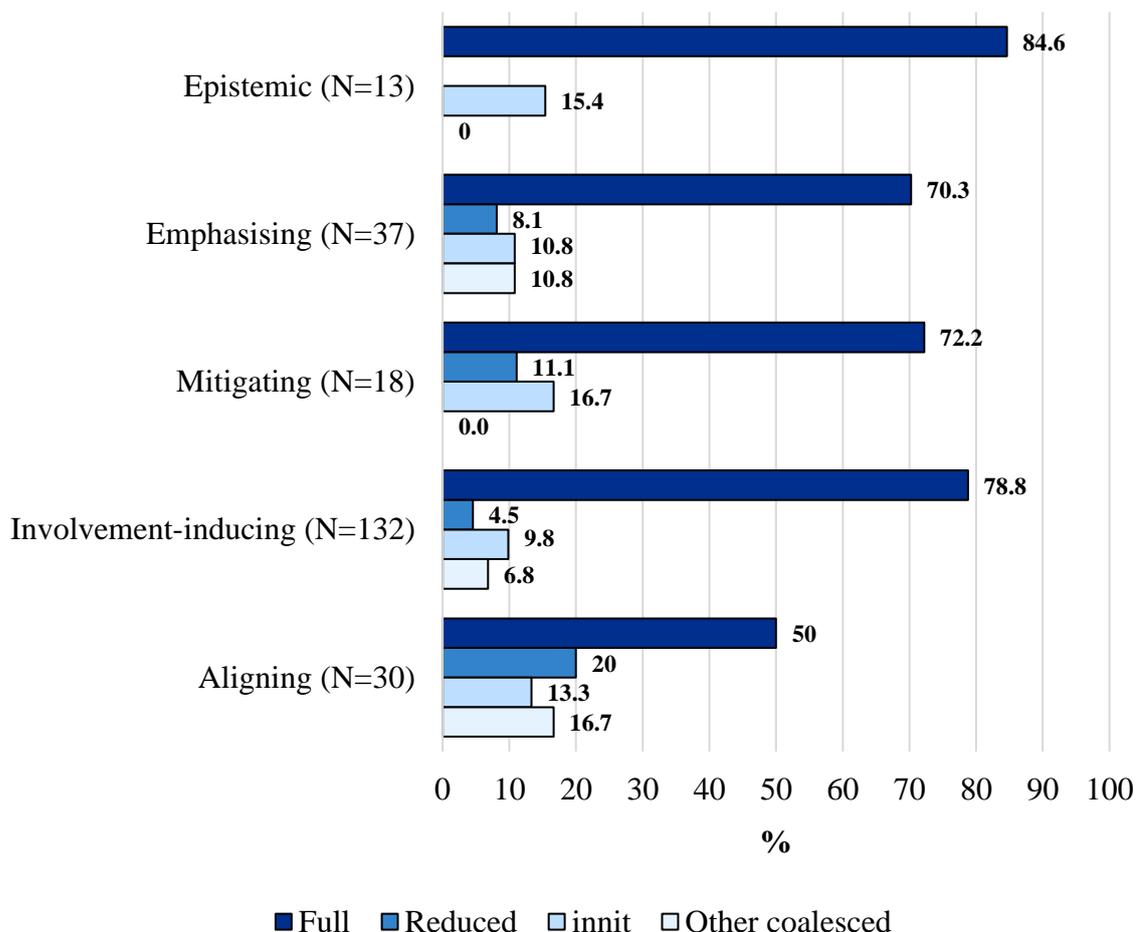


Figure 5.5: Distribution of negative tag variants according to function in Tyneside

The results for Salford in Figure 5.6 reveal a more varied system than in Glasgow or Tyneside, as no single tag type dominates any function. The association of full variants with epistemicity, as found in Glasgow and Tyneside, also holds in Salford. Coalesced variants generally are used the least for epistemic functions, but the same is not true for *innit*. Among the intersubjective functions of involvement-inducing and aligning, the distribution of variants is skewed more towards those that have undergone some degree of reduction (i.e. reduced, *innit*, other coalesced) than in the other function categories.

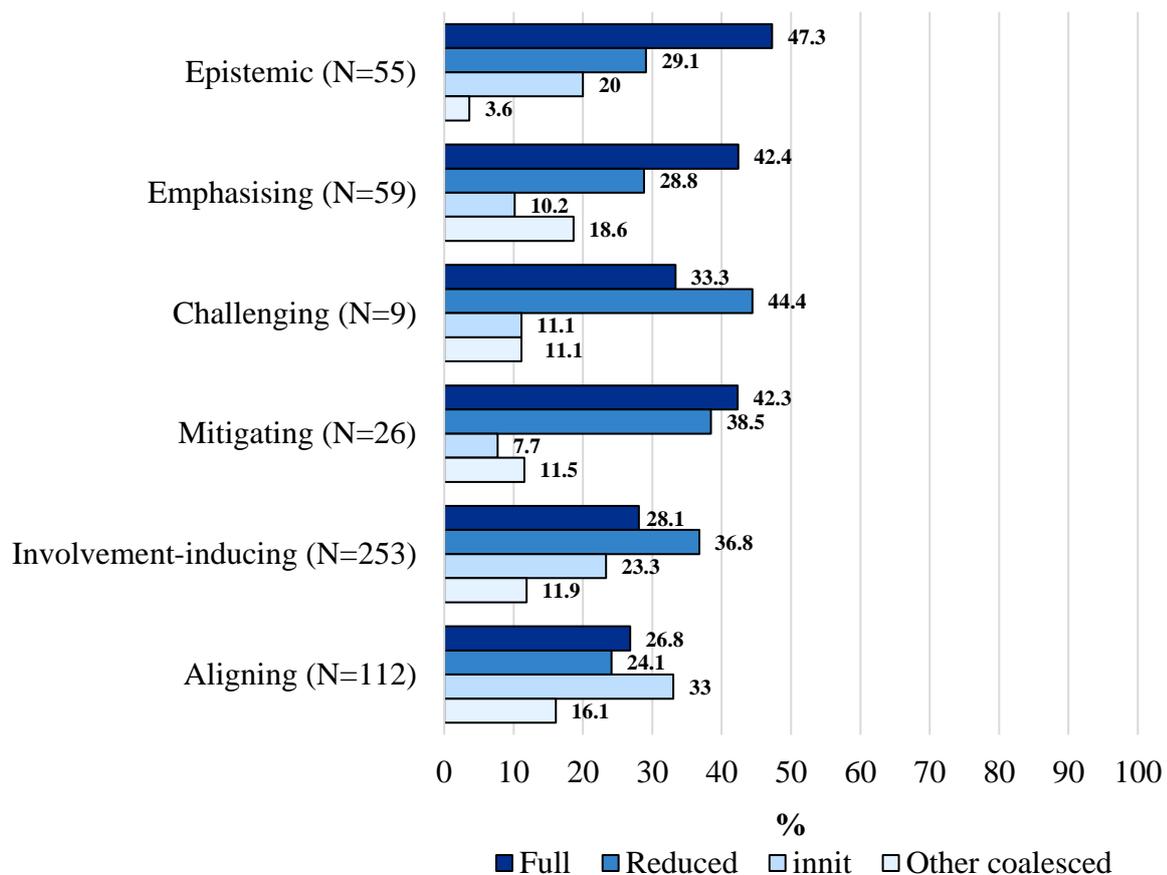


Figure 5.6: Distribution of negative tag variants according to function in Salford

These comparisons of form and function have uncovered complex, cross-dialectally inconsistent trends. Having said this, one robust finding pertains across the communities: full tags are associated with epistemic functions. Furthermore, the same generalisation held in Berwick-upon-Tweed (Pichler 2013: 200), suggesting that this is a widespread form-function association at least in Northern British English. This finding is also consistent with the proposal that the epistemic function is the oldest function of tags (Hoffmann 2006; Tottie & Hoffmann 2009) and the assumption that full tag variants are the oldest tag forms (G.

Andersen 2001; Hopper & Traugott 2003: 125). The fact that the other form-function mappings vary across space demonstrates that form and function ‘do not necessarily change together’ in grammaticalisation (Vincent & Börjars 2010: 296), neither within nor between communities.

The following analyses examine broader correlations between form and binary groupings of function, beginning with tag conduciveness as shown in Figure 5.7 below. The Glasgow results show a higher frequency of full variants for non-conductive functions and a higher rate of reduced/coalesced variants for conducive functions, which is contrary to expectations if both reduced phonetic form and non-conductive meanings are indicative of grammaticalisation. However, the significance of this distribution using a chi-squared test could not be established for Glasgow because of low numbers. Conduciveness has no relation to variant type in Salford, as there is little difference in the frequencies of variants across functions and the distribution was not significant ($\chi^2=5.436$, d.f =3, $p>0.05$). However, the results for Tyneside are significant ($\chi^2=8.482$, d.f.=3, $p<0.05$) and are consistent with the hypothesis that phonetically-reduced tags are used more often with non-conductive meanings than full variants are. The reduced, *innit* and other coalesced variants all pattern in this way, while full tags are more frequent with conducive functions, as predicted. These results might reflect ongoing grammaticalisation in Tyneside, but we must recall that the relative frequency of reduced and coalesced variants overall in this locale is low, which suggests that this may just be the onset of a change in this community.

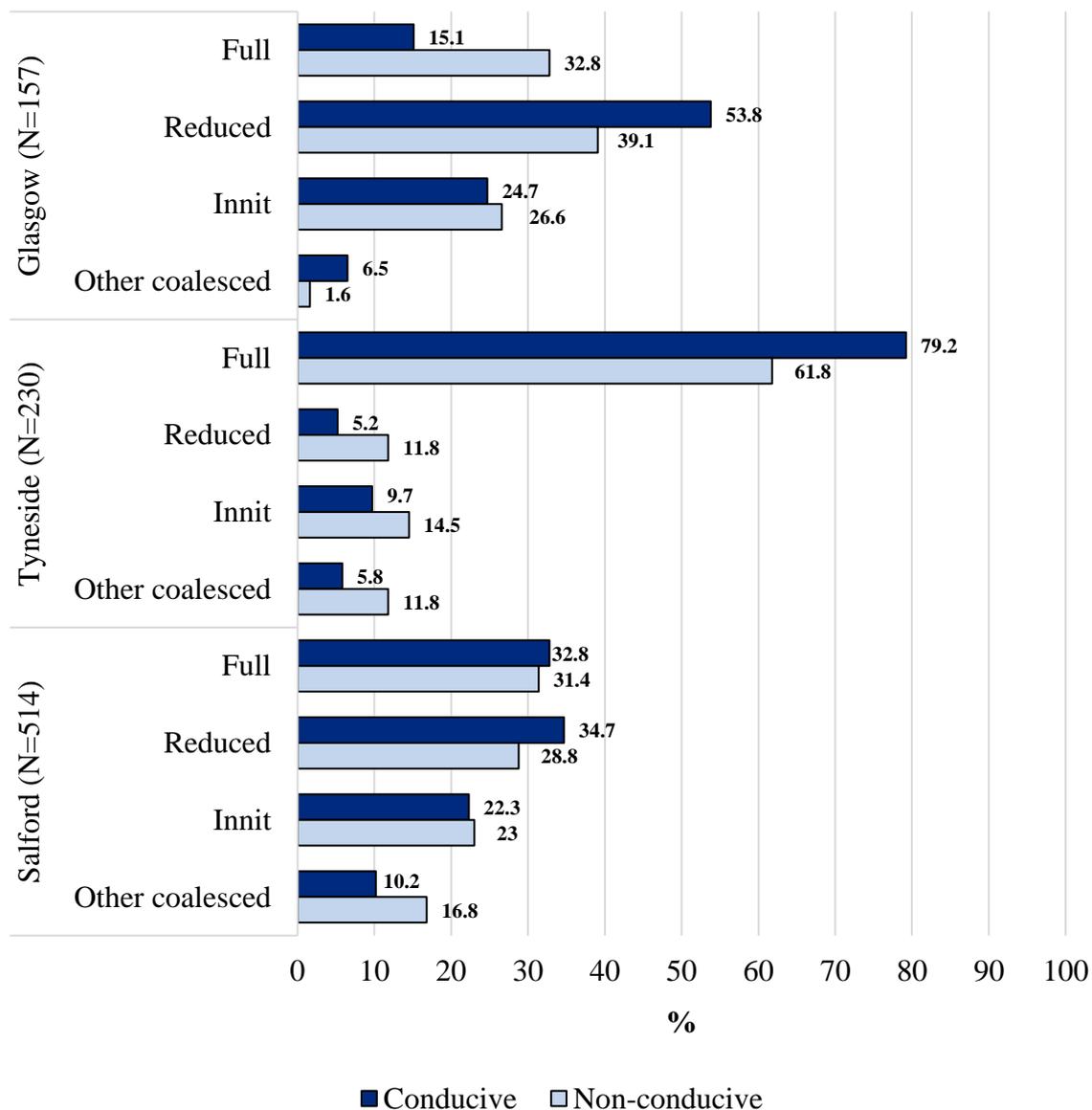


Figure 5.7: Distribution of negative tag variants according to conduciveness

To shed further light on the mapping of function and form, I now consider the impact of the tags' orientation – subjective functions (epistemic, emphasising, challenging) vs. intersubjective functions (mitigating, involvement-inducing, aligning) – in Figure 5.8. If both subjective and intersubjective meanings arise as constructions undergo grammaticalisation but intersubjective meanings develop later than subjective ones, and grammaticalisation is characterised also by greater phonetic reduction (Hopper & Traugott 2003; Traugott 2010), more-phonetically-reduced variants are expected to occur with intersubjective functions to a greater extent than less-phonetically-reduced variants.

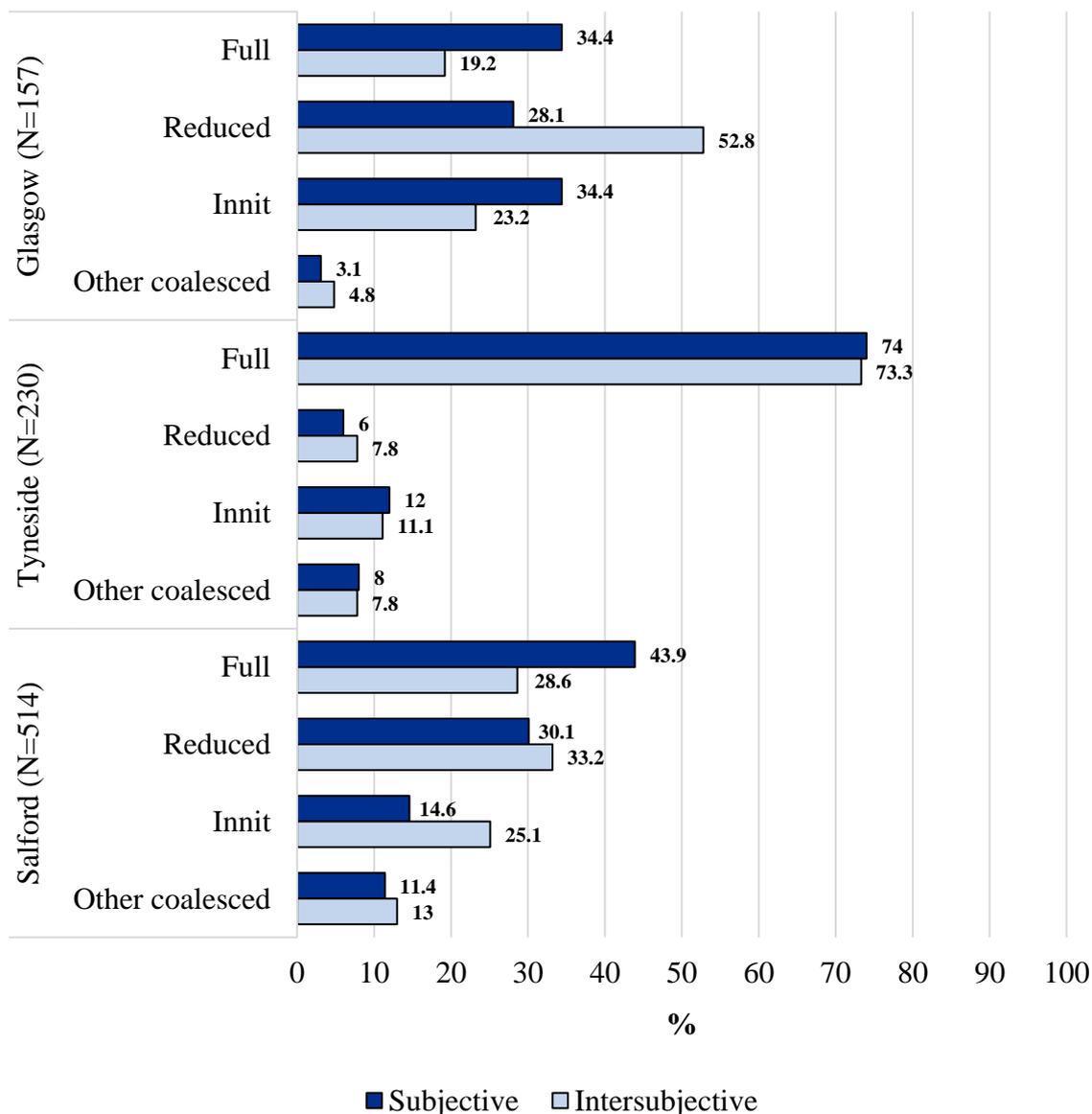


Figure 5.8: Distribution of negative tag variants according to (inter)subjectivity

Figure 5.8 reveals that Salford speakers tend to use full variants for subjective functions while all of their more phonetically-reduced variants tend to be used with intersubjective meanings, which is a significant distribution ($\chi^2=11.748$, d.f.=3, $p<0.01$). The form-function associations here are precisely what we would expect of tags undergoing grammaticalisation given that phonetic erosion and pragmatic expansion from subjective to intersubjective meanings are both characteristic of this kind of change (Lehmann 2005; Traugott 2010). The Glasgow distributions, albeit not significant ($\chi^2=7.29$, d.f.=3, $p>0.05$), largely mirror this tendency: full variants are used more for subjective functions than intersubjective functions and reduced tags tend to be used for intersubjective functions. However, *innit* (which could be considered the

most advanced along the grammaticalisation cline considering its fusion and high frequency compared to other coalesced variants) is not especially associated with meanings that constitute the most advanced pragmatic development, i.e. intersubjective functions. That said, subjective meanings are also associated with grammaticalisation, just a less advanced stage (Traugott 2010). The results for Tyneside are inconclusive as a chi-square value could not be calculated, but the distributions suggest no relationship between (inter)subjectivity and tag reduction.

In the light of these results, which factor, conduciveness or (inter)subjectivity, is the most relevant measure of tag development along the cline of grammaticalisation? Both appear to be important, since one was significant in Tyneside and the other was significant in Salford. Recall that Tyneside speakers use reduced/coalesced variants much less overall than Salford speakers, which suggests that the Tyneside tag system may be lagging behind in this respect. As such, a tentative hypothesis is that the development of non-conductive meanings is indicative of a *less advanced* stage of grammaticalisation. In contrast, both subjective and intersubjective meanings are associated with grammaticalising constructions, but the latter is associated with *more advanced* grammaticalisation (Traugott 2010).

Discourse-pragmatic effects therefore do not necessarily manifest themselves in the same way in different varieties of English. Just as Moore and Podesva (2009: 477) argue that ‘meanings in the indexical field can be repackaged and combined in unique ways to create distinct local identities’, discourse-pragmatic functions too can be ‘repackaged’ with linguistic forms in different ways depending on the community. These effects of function are further explored in the mixed-effects logistic regression modelling in section 5.6.6.

5.6.5. *Speaker sex and speaker age*

Speaker sex and age are first considered independently, then in a combined cross-tabulation analysis, to examine whether the patterning of variants according to these two factors suggests ongoing change in each community. Figure 5.9 shows that the distributions according to speaker sex are remarkably consistent across the localities, which are significant in all three (Glasgow: $\chi^2=11.542$, d.f.=3, $p<0.01$; Tyneside: $\chi^2=34.02$, d.f.=3, $p<0.001$; Salford: $\chi^2=21.375$, d.f.=3, $p<0.001$). Firstly, women use full variants more than men, most

substantially in Tyneside. Secondly, women tend to use reduced variants more than men. Although this is not true of Tyneside, reduced variants are low-frequency overall there, with little distinction between the percentages for each sex. Thirdly, men use *innit* and other coalesced forms to a greater extent than women in all three communities (albeit by a small margin in Salford), corroborating previous accounts of male speakers leading in the use of *innit* in British English (G. Andersen 2001; Torgersen *et al.* 2011: 108; Pichler 2013).

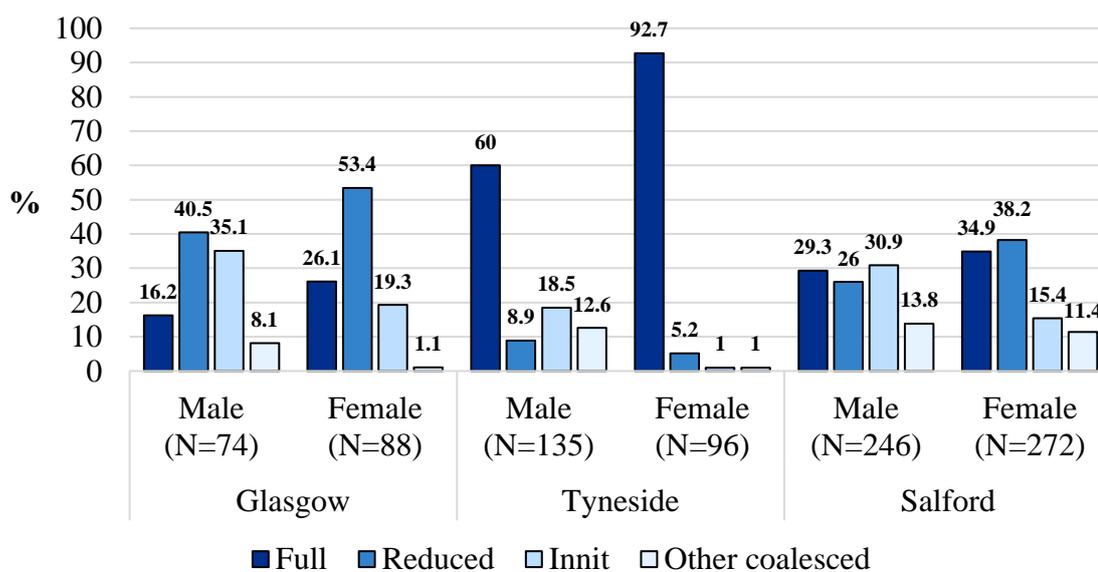


Figure 5.9: Distribution of negative tag variants according to speaker sex

Women are therefore retaining comparatively conservative pronunciations, full and reduced, more than men. Men are leading in the use of *innit* and other coalesced variants, which represent the latest stage in the phonetic reduction/fusion of negative tags. These trends reflect the classic sociolinguistic frequency for women to use standard forms more than men (Trudgill 1974: 93; Chambers & Trudgill 1998: 61). Reduced variants, however, could still be considered non-standard – in which case, why do women use them more than men? Two related factors offer a likely explanation. Firstly, if reduced forms represent the middle stage of reduction between full and coalesced variants and men are leading in coalescing, it is natural for their rate of reduced variants to be lower than the women’s as the men’s reduced variants may become coalesced to a greater extent. Secondly, coalesced forms are perhaps the most salient variants because they are the product of the fusion of two grammatical items, auxiliary and pronoun, in addition to consonant loss and/or vowel reduction. These variants may have covert prestige which could account for the male lead in their use, as suggested by

Pichler (2013: 209) who also finds an association between male speech and phonetically-reduced tag variants.

The age-based distribution of tag variants shown in Figure 5.10 sheds further light on the apparent change. A chi-squared value could not be calculated for Glasgow, but those calculated elsewhere reveal significant association between variant type and age in Tyneside ($\chi^2=30.284$, d.f.=3, $p<0.001$) though not in Salford ($\chi^2=4.501$, d.f.=3, $p>0.05$). This latter result, coupled with the similar percentages per age group in Salford, suggests stable variation in the community. This result is compatible with the earlier findings that Salford has the most reduction/coalescing of tags. The change may therefore have slowed down or even ceased completely in Salford. Indeed, items do not have to proceed all the way along the grammaticalisation cline (Hopper & Traugott 2003: 131). In Tyneside and Glasgow, older speakers are more conservative than the younger speakers, with greater use of full tags. The contrast is very strong in Tyneside: 95% of the older group's tokens are full variants. Young speakers meanwhile lead in the use of reduced variants in both Glasgow and Tyneside. Both age groups use *innit* and coalesced tags to a similar extent in Glasgow, whereas the contrast between the two Tyneside groups is striking: older speakers do not use *innit* at all, whereas it comprises 17.2% of the young people's tokens. Other coalesced variants are also used at higher frequencies amongst the younger age group. Together, these results suggest an ongoing change from below (Labov [1966] 2006: 206–7) in both communities (particularly strong in Tyneside) where reduced and coalesced tag variants are becoming increasingly frequent.

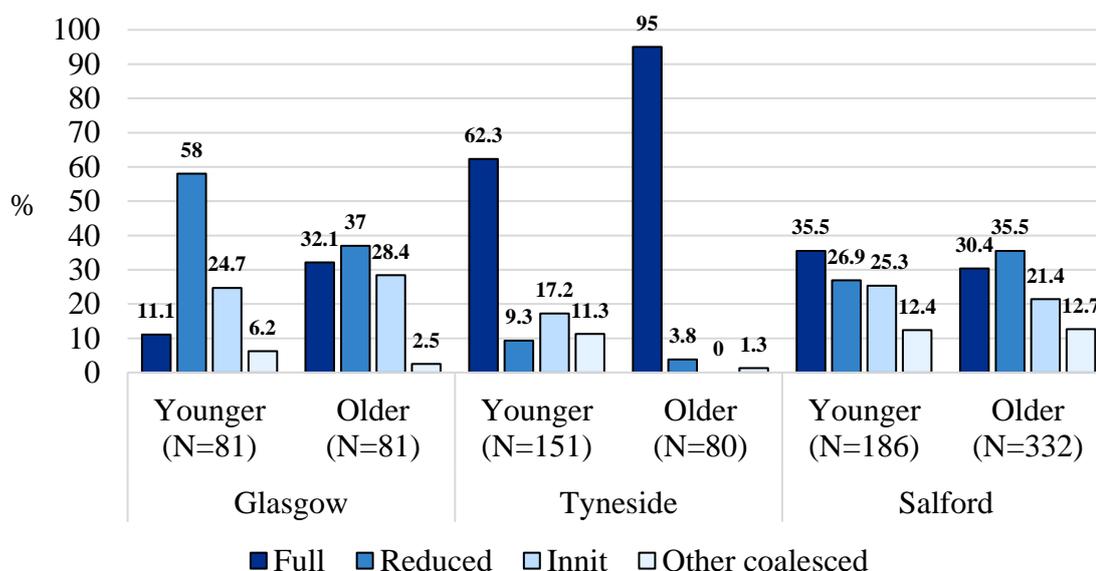


Figure 5.10: Distribution of negative tag variants according to speaker age

Consideration of speaker age and sex together in the same distribution, shown in Figure 5.11, reveals whether the age trends are consistent across sexes and *vice versa*. In every locale, young men have the highest percentage of coalesced tags and the highest/second highest frequency of *innit* of any social group. They also have the highest percentage of reduced tags everywhere except Salford (where they have the lowest), but there they still have the lowest rate of full tags. Together, these findings corroborate observations that young men lead in the use of *innit* (G. Andersen 2001; Pichler 2013) and show that these observations are true of other phonetically-reduced variants too. Young women are, in some ways, not far behind their male peers in this regard. They have the lowest frequency of full forms of any age group in Glasgow and Salford, where they are also the social group with the highest (Glasgow) or second highest (Salford) use of reduced tags. Where young men and women diverge in their tag usage is primarily with respect to *innit* and the other coalesced forms: young women have the lowest or second lowest rate of *innit* in each locale and have relatively low rates of use of coalesced variants compared to most other social groups. Older speakers of both sexes have high relative frequencies of full variants and low percentages of reduced variants compared to other social groups. Although older men have the highest frequency of *innit* of any group in Glasgow and the second highest in Salford, neither they nor older women use *innit* at all in Tyneside. Older men's frequency of coalesced variants appears similar to the younger men's in each community. Older women rarely use *innit* or coalesced variants, except in Salford where they use *innit* more and there is greater stability in the distributions overall.

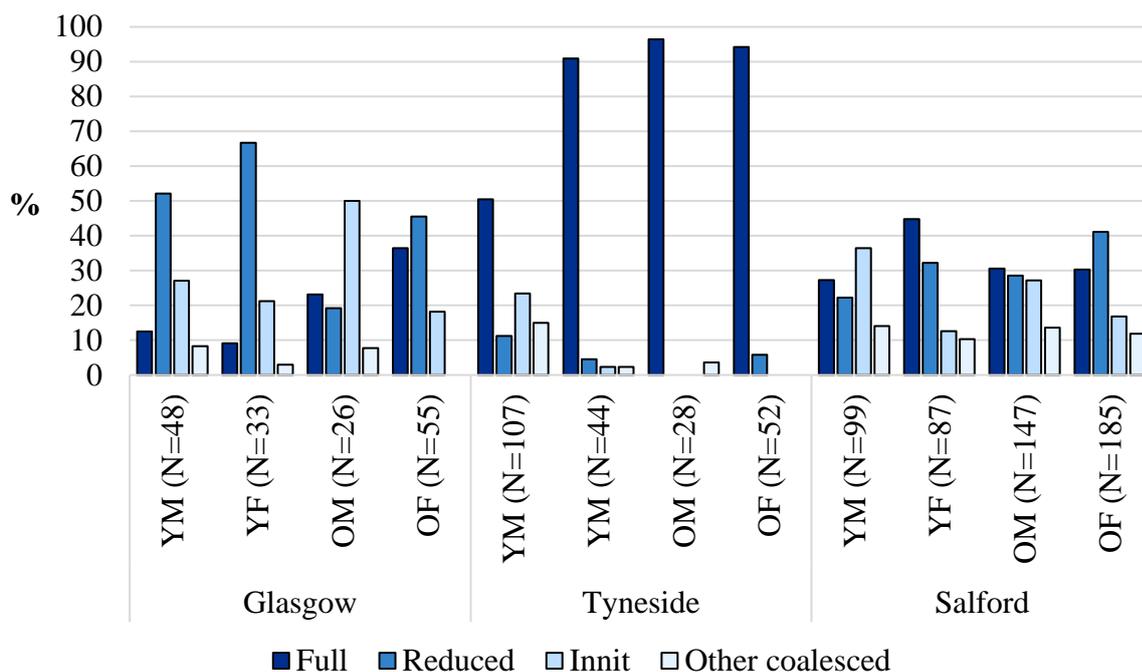


Figure 5.11: Distribution of negative tag variants according to speaker sex and age across the three communities

Thus, the general trends observed for sex and age as separate independent variables remain when the two are examined together: reduced/coalesced variants are associated more with male as opposed to female speakers, and young as opposed to older age groups.

5.6.6. Regression analysis

The distributional analyses have shown that verb type, discourse-pragmatic function, locality, speaker sex and speaker age affect the variation between full, reduced and coalesced tags in Glasgow, Tyneside and Salford. To examine the relative impact and significance of these effects, this section presents results of mixed-effects logistic regression. Only paradigmatic tag tokens were included in the regression, to conform to the distributional analyses. As this statistical modelling requires the dependent variable to be binary, the variable was recoded to distinguish between full tags and tags that have any kind of phonetic reduction (i.e. reduced tags and coalesced tags, including *innit*, were collated), to best capture how tag reduction is affected by linguistic and social factors.

Only BE and DO tags featured in this analysis, so as not to include verb categories that (i) exhibit little variation (e.g. modals) or (ii) are infrequent in at least one of the localities. Including tokens of type (i) would bias the model and it is standard sociolinguistic practice to exclude them (Guy 1993: 239). Tokens of type (ii) were excluded because locality was also included as a factor in the model; including tokens of verbs that were infrequent in one locality but not another would create problems in the statistical model, as they would not be orthogonal (Tagliamonte 2012: 132). For example, HAVE tags are reasonably frequent in Tyneside (N=20) and Salford (N=35), but not in Glasgow (N=8), so they were excluded to achieve greater statistical validity in a model testing both verb type and locality.

The first model presented here contains data from all three localities combined (N=781). Four fixed factors were included in the model, all of which had an effect on variant choice in the distributional analysis: Locality (Glasgow, Tyneside, Salford); Verb type (DO, BE); Age (Older, Younger); Sex (Female, Male). A random effect of speaker is also included to account for inter-speaker variation.

This model for the three communities combined does not include any factor relating to discourse-pragmatic function because the results in section 5.6.4 revealed that the three locales exhibit different form-function correlations. While conduciveness was the important functional categorisation in Tyneside, (inter)subjectivity was the relevant criterion in Salford, whereas the Glasgow results were inconclusive due to a smaller dataset. I therefore decided against including function as a predictor in a model comprising data from all three localities with locality also included a factor, but function is considered later in the individual community runs.

Table 5.11 shows the results of this first mixed-effects logistic regression to establish the contribution of linguistic and social factors to the choice of phonetically-reduced (either reduced or coalesced) tags as opposed to full tags.

	Tag reduction					
Total N	781					
AIC	807.3					
Log Likelihood	-396.6					
Deviance	793.3					
	Estimate	Std. error	Z- value	p-value	Sig.	% N
(Intercept)	0.06686	0.44992	0.149	0.88186		
Locality <i>Reference level:</i> <i>Glasgow</i>						80.3 142
Tyneside	-3.60109	0.56652	-6.357	2.06e ⁻¹⁰	***	28.3 205
Salford	-0.66743	0.47021	-1.419	0.15578		68.9 434
Verb type <i>Reference level:</i> <i>DO</i>						41.5 253
BE	1.25524	0.20603	6.093	1.11e ⁻¹⁰	***	69.3 528
Age <i>Reference level:</i> <i>Older</i>						58.9 426
Younger	1.07585	0.41340	2.602	0.00926	**	62.0 355
Sex <i>Reference level:</i> <i>Female</i>						54.7 395
Male	0.57715	0.38245	1.509	0.13127		66.1 386
Speaker Random st. dev.	1.25					

Table 5.11: Mixed-effects logistic regression of the combined effect of factors in the phonetic reduction of negative tags

The strongest predictor of tag reduction is locality. Both Tyneside and Salford have negative estimate values in Table 5.11 in relation to the reference level (Glasgow), but while Glasgow and Salford are not statistically differentiated, Tyneside is significantly distinct from the other two locales. Tyneside's strong negative estimate, high level of significance and overall low percentage of tag reduction (28.3%) compared to the other two communities which have similar profiles is consistent with my previous proposal that Tyneside is the least advanced of the three locales in terms of an ongoing process of tag reduction and grammaticalisation, just as it was in the change from *no*-negation to *not*-negation (see Chapter 3).

The second strongest predictor is the sole linguistic effect included in the model: verb type. Tags with BE are significantly more likely to undergo reduction compared to DO. This is most likely because BE tags are more frequent in the data and higher-frequency constructions are particularly prone to phonetic reduction (Bybee & Hopper 2001; Bybee 2003; Krug 2003).

The third significant predictor of tag reduction is speaker age. Younger people use reduced/coalesced variants significantly more than older speakers, which may reflect ongoing change towards greater use of these forms (Labov [1966] 2006: 206–7). Although tag reduction was more frequent amongst men compared to women, speaker sex is not significant when considered alongside the other factors in the regression.

Table 5.12 shows the results of another two mixed-effects logistic regression models, for Tyneside and Salford respectively, enabling investigation of individual community patterns and comparison with the results from the model for all three communities combined. A statistical model is not included for Glasgow because the sample is relatively small (N=142) compared to the Tyneside data (N=205) which provides a point of comparison with the more robust Salford model (N=430). In these two models, the same fixed factors were included as in the first model in Table 5.11 except for locality, but with the addition of discourse-pragmatic function, categorised as ‘Orientation’ (subjective vs. intersubjective). This factor was chosen because in section 5.6.4 it was identified as a significant correlate of tag reduction in Salford, whereas in Tyneside it was not. Including this factor in each of these locality-specific regressions will test whether its effect is maintained in Salford when it is considered alongside other predictors in the same model.

	Tyneside						Salford									
Total N	205						430									
AIC	169.4						511.0									
Log Likelihood	-79.7						-249.5									
Deviance	159.4						499.0									
	Estimate	Std. error	Z- value	p-value	Sig.	%	N	Estimate	Std. error	Z- value	p-value	Sig.	%	N		
(Intercept)	-4.9150	1.0469	-4.695	2.67e ⁻⁰⁶	***			-0.33725	0.37436	-0.901	0.3676					
Verb type																
<i>Reference level:</i>																
<i>DO</i>							15.9	88							55.7	140
<i>BE</i>	2.0028	0.5389	3.716	0.000202	***	37.6	117	0.98462	0.24151	4.077	4.56e ⁻⁰⁵	***	75.2	290		
Orientation																
<i>Reference level:</i>																
<i>Subjective</i>							29.5	44							57.6	99
<i>Intersubjective</i>	0.3479	0.5589	0.623	0.533609		28.0	161	0.65926	0.27544	2.393	0.0167	*	72.2	331		
Sex																
<i>Reference level:</i>																
<i>Female</i>							7.8	90							65.3	225
<i>Male</i>	2.3741	0.9234	2.571	0.010142	*	44.3	115	0.07546	0.37575	0.201	0.8408		72.7	205		
Age																
<i>Reference level:</i>																
<i>Older</i>							4.0	75							70.5	275
<i>Younger</i>	N/A	N/A	N/A	N/A		42.3	130	-0.11792	0.40321	-0.292	0.7699		65.8	155		
Speaker																
Random st. dev.	1.783						0.6844									

Table 5.12: Mixed-effects logistic regression of the combined effect of factors in the phonetic reduction of negative tags in Tyneside vs. Salford

As the results for Tyneside in the leftmost column of Table 5.12 show, the variation is strongly constrained by verb type, just as it was in the model from all three localities combined. Once again, BE tags favour reduction more than DO tags, reflecting their higher frequency which leads to greater reduction (Bybee & Hopper 2001; Bybee 2003; Krug 2003). As for social factors, sex has a significant impact on tag reduction, with Tyneside men more likely to reduce their negative tags than women, which is consistent with Pichler's (2013) findings from Berwick-upon-Tweed. To prevent biasing the results, age could not be included as a predictor in the Tyneside model as the effects are near-categorical, with older speakers reducing/coalescing only 4% of their tags. However, the percentages per age group in Table 5.12 show that younger people in Tyneside have greater use of reduced/coalesced variants, as expected in a change in progress. In line with the distributional results, in Tyneside there is no significant effect of discourse-pragmatic function in terms of (inter)subjectivity. When the same model is run again (not presented here) with 'conduciveness' (conductive vs. non-conductive functions) rather than 'orientation' as a factor, non-conductive tags do promote reduction more than conductive tags, but the effect only nears significance ($p=0.0678$).⁷⁵ Therefore, conduciveness is a better predictor of tag reduction in Tyneside than (inter)subjectivity, but neither discourse-pragmatic effect is significant when modelled alongside other factors.

The Salford results in the righthand column of Table 5.12 confirm the significance of the verb type effect, whereby BE tags favour reduction more than DO tags. Unlike Tyneside, Salford exhibits a significant effect of tag orientation: intersubjective tags favour reduction significantly more than subjective tags. This result supports a grammaticalisation account of the change characterised by phonetic reduction and pragmatic expansion (Bybee & Hopper 2003). Although grammaticalisation can give rise to both subjective and intersubjective meanings, intersubjective functions are said to develop later (Traugott 2010) and therefore can be construed as a further development along the grammaticalisation cline. However, these are only *possible* trajectories and grammaticalising constructions need not necessarily proceed via a series of stages in this way (Traugott 1989: 33; Pichler 2013: 208). Indeed, the fact that (inter)subjectivity (as well as conduciveness) was not significant for every locality shows that (i) communities differ with respect to how far their negative tags have advanced along the grammaticalisation cline; (ii) functional expansion proceeds in a community-specific manner;

⁷⁵ The effects and significance levels of the other factors in the model do not change.

and (iii) the form-function mappings are not ubiquitous between dialects of the same language. The results for speaker sex, whereby men use reduced/coalesced tags more than women, are consistent with the results for Tyneside and the overall model in Table 5.11. However, the age effect diverges from the overall model – older people use phonetically-reduced tags more than the younger group. Crucially, though, neither speaker sex nor age is significant in the Salford model. This suggests that there is little or no ongoing change towards greater tag reduction in this locale, but that the variation is conditioned predominantly by the linguistic factors of verb type and (inter)subjectivity.

5.7. Discussion

This comparative sociolinguistic analysis of negative tags in Glasgow, Tyneside and Salford focused on their phonetic realisation as full, reduced and coalesced variants and how this is conditioned by linguistic and social factors. The aims of the chapter were to examine whether the phonetic reduction and fusion of negative tags is subject to the same linguistic constraints in each community; whether the choice of variants correlates with the speaker sex and age in ways that suggest ongoing change; and whether the form-function associations in each community are indicative of grammaticalisation in the negative tag system.

Given the loss of phonological material between full, reduced and coalesced forms, these three variant types can be understood as representing three stages of a temporal continuum (Krug 1998; G. Andersen 2001; Hopper & Traugott 2003: 125; Pichler 2013). Under this account, the overall frequency of variants observed here suggests that Tyneside is more conservative than Glasgow and Salford in terms of tag reduction. Unlike the other two communities, the Tyneside data consists predominantly of full variants, with the lowest frequency of reduced and coalesced tags of any locale studied. Glasgow and Salford have more similar profiles with much higher frequencies of reduced and coalesced forms. These trends persist in the mixed-effects logistic regression where locality was the strongest predictor of tag reduction, with Tyneside statistically distinct from Glasgow and Salford in the same respect. Therefore, while tag reduction occurs widely in English dialects, its frequency differs even within one broad variety of English (Northern British). However, all three dialects can be considered conservative in terms of their lack of semi/non-paradigmatic tags; these non-agreeing tags constitute less than 10% of tokens in each dataset. There is therefore

little evidence of decategorialisation of the tags, as has been observed for other varieties outside London (Pichler 2013).

Verb type is a key predictor of negative tag reduction, as reflected in the distributional and regression analyses. Mixed-effects logistic regression revealed that verb type was the second strongest predictor of the choice of tag type after locality, and the most important factor in the individual runs for Tyneside and Salford (Glasgow was excluded given its smaller dataset). The constraint operates consistently, with BE favouring reduction more than tags with DO, as a likely consequence of high-frequency constructions having greater propensity to undergo phonetic reduction (Bybee & Hopper 2001). Indeed, BE tags were more frequent than those with DO in my data as a whole and in each regional sample. Note that this frequency effect is opposite to that described in the literature for *not*-negation and *no*-negation as discussed in Chapter 3, in which high frequency leads to the preservation of an older syntactic variant. The difference between the two lies in their relation to storage vs. processing, respectively (Bybee 2003: 621). Under Bybee's (2003: 621) account, the repetition of *no*-negation with high-frequency verb types leads to preservation of the syntactic properties and constructions are more likely to be stored as units, whereas the phonetic reduction that high-frequency tags experience arises as the result of a processing effect due to 'ritualization or automatization' in production.

The second linguistic effect on tag reduction is less clear-cut than the effects of verb type. In the distributional analyses, form-function correlates were different for each community. Furthermore, different categorisations of functions were relevant for different communities. The results for Glasgow were inconclusive due to low numbers, but while non-conducive (as opposed to conducive) functions correlated with phonetically-reduced tags in Tyneside, intersubjectivity was the relevant criterion in Salford, where phonetically-reduced tags were especially associated with intersubjective (vs. subjective) meanings. Both subjective and intersubjective meanings can arise as forms grammaticalise, but intersubjective meanings develop from the subjective. Thus, the fact that (inter)subjectivity was significant in Salford suggests ongoing grammaticalisation and expansion of tag meanings from subjective to intersubjective. In Tyneside, there is no such correlation between variant type and (inter)subjectivity, which is in line with the earlier proposal that the grammaticalisation has not reached the same stage there. These findings emphasise that although tags may have a

similar set of functions in different dialects (though see Columbus (2010) as an example of a study identifying *different* sets of functions for discourse markers in three global Englishes), the way in which these functions correlate with form is not necessarily consistent across varieties. Rather, forms can become functionally meaningful in community-specific ways. If conduciveness ‘is enlisted in constructing many other kinds of social meanings’ and these meanings ‘can be repackaged and combined in unique ways to create quite distinct local identities’ (Moore & Podesva 2009: 477), it is conceivable that this kind of “repackaging” of meanings does not just apply to social meaning but can be extended to discourse-pragmatic meaning too. These cross-varietal differences with respect to form and function are further emphasised in the results of the regression analysis which showed that neither conduciveness nor (inter)subjectivity were significant factors (when tested separately) in Tyneside, although the former was more relevant than the latter. In Salford, on the other hand, (inter)subjectivity was a significant factor, with tag reduction patterning with intersubjective functions, as would be expected given that both are measures of a more rightward position on the grammaticalisation cline (Hopper & Traugott 2003; Traugott 2010). The lack of significance of function in Tyneside could reflect its status as less advanced in the change towards increased phonetic reduction of tags, coinciding with it having the lowest rate of use of reduced/coalesced tags of any community. Phonetic reduction and pragmatic expansion do not necessarily occur simultaneously in the process of grammaticalisation (Zilles 2005; Vincent & Börjars 2010: 296). By definition, grammaticalization involves ‘continual negotiation of meaning’ between speakers in interaction (Hopper & Traugott 2003: 98) and co-existing layers of forms and meanings. As such, there may be a certain threshold of reduction that must occur before the forms come to be associated with particular discourse-pragmatic meanings.

As for social effects in negative tag use, age was an important factor, having significance in the overall model. Younger people were found to favour tag reduction more than older people, which is expected in ongoing change from below (Labov [1966] 2006: 206-7). The effects in Tyneside were so extreme that age could not be included in the individual regression model, while in Salford the effects were not significant. Speaker sex meanwhile was not significant overall or in Salford, but was in Tyneside, where male speakers used reduced/coalesced tags to a greater extent than female speakers, reflecting observations elsewhere in Britain (G. Andersen 2001; Pichler 2013). The trends according to speaker sex

were fairly consistent across all three communities in the distributional analysis: women use full tags more than men, while men use more *innit* and coalesced forms. The fact that sex and age are not significant in the Salford regression is strongly indicative of stable variation in this community.

This chapter has emphasised the robustness of verb type effects on negative tag reduction, arising as a result of the verbs' frequency and phonological structure. The associations between tag form and function, on the other hand, are variable across communities. Changes in the form and meaning of grammaticalising items therefore do not appear to progress in the same way, or at the same time, in each locale. Avenues for future research include extensions of the analysis to other communities, particularly those closer to London that may display greater evidence of ongoing grammaticalisation. The nature of tags as multi-functional and socially-relevant features also renders them ideal for more ethnographic investigations, e.g. in different social networks within the same community. Another area of further study is whether tag reduction is constrained by other factors pertaining to the interview situation, particularly in Tyneside where the interviewers are different for every recording. This particular line of investigation is pursued in Chapter 6.

Chapter 6. Interviewer Effects on Negative Tag Variation

6.1. Introduction

Considering the results for the three linguistic variables studied in this thesis (*not-/no*-negation and negative concord; non-quantificational *never* and *didn't*; negative tags), Tyneside is demonstrably more conservative than Glasgow and Salford, as it displays higher frequencies of older, less innovative variants. Tyneside has the highest rates of *no*-negation and full tags of any community and, along with Salford, it has the highest rates of *didn't* as opposed to *never* usage. As noted in Chapter 3, the preference for more traditional variants in the North East is consistent with its status as a relatively geographically-isolated region of England (Beal 2004b: 34; Burbano-Elizondo 2008: 143–4), since remoteness is associated with the retention of older language features (Smith 2004). This effect has been found for other variables too: for example, Tyneside's traditional [a:] variant of the GOAT vowel (in *y'knaa*, meaning “you know”) represents a pronunciation used before the Great Vowel Shift (Corrigan *et al.* 2014: 117–9).

Another factor which may contribute to differences in the frequency of variants between the Tyneside data and those from Glasgow and Salford is the nature of the Tyneside corpus, DECTE (Corrigan *et al.* 2010-12), in which every interview was conducted by a different student interviewer. As explained in Chapter 2, many measures were taken to maximise comparability between the Glasgow, Tyneside and Salford samples from their respective pre-existing corpora. However, it is impossible to control for every single methodological factor that might affect the data collected and the results obtained, as all corpora are compiled with the original corpus creator's research goals in mind (Tognini-Bonelli 2001: 59; D'Arcy 2011). Nevertheless, it is possible to analyse interviewer effects as potential predictors of interviewees' language choices, which I pursue in this chapter. Due to the relatively low number of tokens in the final Tyneside samples for the *not-/no*-negation and negative concord analysis and the non-quantificational *never* vs. *didn't* analysis, this chapter will focus on the 205 tokens of negative tags included in the final regression run for Tyneside in Chapter 5, section 5.6.6. In this chapter, I consider two potential interviewer effects that I hypothesise may impact upon the Tyneside speakers' choice of phonetically-reduced negative tag variants (e.g. *int it*, *innit*) as opposed to full variants (e.g. *isn't it*), namely, the interviewer-interviewee

relationship and the interviewer's variety of English. The analysis concerns the Tyneside data only, because it is only within this dataset that the interviewers are different across recordings. Furthermore, there is sufficient variation in the varieties of English spoken by the interviewers, i.e. some interviewers are from the North East of England (like the interviewees), others are from elsewhere in the UK, and some are from other countries and speak non-native varieties of English.

The negative tags are a particularly appropriate variable for the study of these interviewer effects. Firstly, discourse-pragmatic features in general are highly context-dependent, varying on many situational parameters (Pichler 2010: 584). Tags are especially multifunctional, serving important interpersonal functions that vary according to the discourse context (Dubois & Crouch 1975; O'Barr & Atkins 1980; Holmes 1982: 62, 1984; Cameron *et al.* 1989; Pichler 2013). Secondly, situational factors can yield a more significant effect on the frequency/function of discourse markers than classic social variables such as age and sex (Freed & Greenwood 1996: 21; Schlee 2008), predictors which I identified in Chapter 5 as impacting upon negative tag variation. Thirdly, the variants of the negative tag variable are distinguished by the extent of their phonetic reduction: full (e.g. *isn't it*, *doesn't it*), reduced (where the full forms have experienced loss of medial consonants and/or vowel reduction, e.g. *int it*, *dunt it*) and coalesced (where the auxiliary and pronoun have become fused as a single unit, e.g. *innit*, *dunnit*). As more fully-released consonants, less-reduced vowels and less contraction are features of both foreigner-directed speech (Hatch 1983: 183–4; Uther *et al.* 2007; Kangatharan *et al.* 2012) and more formal speech styles (Giegerich 1992: 289; Laver 1994: 68; Kirchner 2001: 26; Hughes *et al.* 2013: 8), the study of negative tags can reveal whether phonetic reduction as part of a discourse-pragmatic variable is subject to style-shifting in relation to the interviewer.

6.2. Effects of the interview situation and discourse context on language variation

The sociolinguistic interview is a widely employed method of collecting data for the study of language variation and change but, like all methods, it presents some challenges that researchers must try to overcome. Labov addresses one such challenge in his description of the Observer's Paradox:

the aim of linguistic research in the community must be to find out how people talk when they are not being systematically observed; yet we can only obtain these data by systematic observation.

(Labov 1972d: 209)

Though it is impossible to remove this effect of the Observer's Paradox entirely, scholars interested in the linguistic features of naturally-occurring speech try to reduce its impact through techniques that divert speakers' attention away from their speech, e.g. recording speakers in pairs (Cukor-Avila & Bailey 2001: 258) or asking emotionally-loaded questions such as the famous 'danger-of-death' question (Labov [1966] 2006: 93). Under the traditional Labovian interpretation, the less attention paid to speech, the more casual the speech style. As a consequence, non-standard or less prestigious phonetic variants are more likely to appear in casual styles than in more careful styles like those used when reading a word list or prose passage (Labov [1966] 2006).

Stylistic analyses have also observed linguistic variation with respect to the topic or function of the conversation (Douglas-Cowie 1978; Coupland 1980; Rickford & McNair-Knox 1994; Schilling-Estes 2004). For example, speakers talking about work or education are more likely to use standard variants than when discussing other topics (Coupland 1980), which may reflect speakers' associations between the standard language and those contexts in their everyday lives (Douglas-Cowie 1978: 43–6). Such studies have focused almost entirely on phonological and morpho-syntactic variables, though there have been some analyses of lexical variation too (see Douglas-Cowie 1978: 43 on *yes* vs. *aye*). Situational effects on discourse-pragmatic variation, on the other hand, have been investigated primarily in situations other than in sociolinguistic interviews. For example, children's discourse markers have been found to vary in function according to the activity in which the children are engaged, e.g. bargaining vs. disputes or story-telling (Kyratzis & Ervin-Tripp 1999; Escalera 2009). Similar effects pertain in adult speech, where the frequency of discourse markers varies according to the nature of the talk situation, e.g. its degree of spontaneity and the extent of collaboration between participants (Freed & Greenwood 1996), the genre (Verdonik *et al.* 2008) or the academic discipline as Schlee (2008) observed in his analysis of university lectures.

Interviewers and interlocutors also have an effect on speakers' language, which is particularly pertinent to the Tyneside data analysed here where the interviewers are different for every interview in the sample. In particular, language use varies according to 'the speaker's psychosocial orientation to his or her conversational partner(s) on the dimensions of *social distance* and *intimacy*' (Milroy 1987: 36). Indeed, speakers have been found to use non-standard syntactic, phonetic and lexical variants more often in conversation with someone who is familiar to them compared to someone less familiar (Douglas-Cowie 1978; Coupland 1980; Russell 1982; Thelander 1982; Rickford & McNair-Knox 1994). Speakers' choice of discourse marker has also been shown to vary depending on whether they are talking to a friend or a stranger (Redeker 1990). When familiar interviewers and interviewees converse, '[r]epeated and regular contact has enabled the fieldworker to establish a context that provides something much like everyday linguistic interaction' (Cukor-Avila & Bailey 2001: 258). As Kyratzis and Ervin-Tripp (1999: 1325) note, 'friends share common ground and goals, and [as a result] conversation and interaction are enhanced'. Speakers can also accommodate towards interlocutors who share similar characteristics to them – e.g. the same race, ethnicity or dialect – or diverge when these do not match their own (Douglas-Cowie 1978; Bell 1984; Rickford & McNair-Knox 1994).

A more specific interviewer effect concerns a particular kind of speech directed towards non-native speakers, sometimes termed 'foreigner talk' or 'foreigner-directed speech' (FDS). This is a register used 'by speakers of a language to outsiders who are felt to have a very limited command of the language or no knowledge of it at all' (Ferguson 1971: 143). Characteristic features of FDS include high-frequency lexical items, simple syntactic structures and a slower speech rate that leads to clearer phonetic articulation with less-reduced vowels, less contraction and more fully-released consonants (Hatch 1983: 183–4). A slower speech rate may grant a non-native speaker more time to process their interlocutor's utterances, while the other features of FDS may aid comprehension, or at least be intended to (Wesche 1994: 233). Empirical evidence supports these suggestions: FDS exhibits greater distinctions between the duration of voiced vs. voiceless consonants than speech directed towards a native-speaker (Sankowska *et al.* 2011), as well as significant vowel hyperarticulation (Uther *et al.* 2007) which has been found to facilitate phonetic processing for both native and non-native speakers (Uther *et al.* 2012).

Previous research has therefore demonstrated that speakers' language is affected by various situational factors including task, topic and genre, as well as interviewer effects. These factors have been neglected in many modern sociolinguistic analyses, which impedes the generalisability of findings across studies (Bailey & Tillery 2004). As described in section 6.1, the negative tags analysed in Chapter 5 are an ideal locus for variation along these situational dimensions, given their context-dependent nature, strong social relevance and having phonetically-distinct variants with the potential for style-shift.

6.3. Hypotheses

The interviews from DECTE which comprise my Tyneside sample are all triadic conversations led by a student interviewer with two White British participants who know each other well. The interviewers vary in their nationality and dialect, as described later in this chapter. The interviewers asked questions about various topics including the interviewees' childhood, school life, career, friendship groups, hobbies, holidays and other life experiences. The interviewers constructed their own series of questions, adapted from the schedule advocated in Tagliamonte (2006), but were instructed to welcome off-topic conversation and let the participants converse between themselves as much as possible (Allen *et al.* 2007: 22). The two interviewer effects analysed in this chapter, namely the interviewer's relationship with the interviewees and the interviewer's variety of English, are easily and reliably coded since they are concrete, relatively objective factors.⁷⁶ My two hypotheses in relation to these factors are presented and explained below.

Hypothesis 1: The closer the relationship between the interviewee and the interviewer, the more likely the interviewee is to use phonetically-reduced negative tag variants.

People in conversation with interviewers that they know are predicted to be less affected by the Observer's Paradox (Labov 1972d: 209) than those talking with less familiar interlocutors. The former situation is considered more comfortable and more closely resembles the regular interactions that the interviewer and interviewees have in their everyday lives (Cukor-Avila &

⁷⁶ Topic selection and the length of time spent on each topic were not controlled across interviews. To code and quantify such factors would therefore not be sufficiently objective or reliable.

Bailey 2001: 258). In these recordings with a familiar interlocutor, non-standard variants are more likely to be used (Douglas-Cowie 1978; Coupland 1980; Russell 1982; Thelander 1982; Rickford & McNair-Knox 1994). Given this background, there are three reasons why phonetically-reduced negative tags are especially hypothesised to occur more frequently in speech with familiar as opposed to non-familiar people. Firstly, phonetically-reduced tag variants can be considered non-standard in the sense that they are phonetically-deviant from the full variants – they have altered vowel quality and/or loss of medial consonants, often leading to a reduction in the number of syllables. Secondly, the coalesced variant *innit* is stigmatised, as indicated by references to it as a “vulgar form of *isn't it*” (“*innit, int.*”, OED Online) and a London school taking prescriptive actions to ban its use amongst pupils (Fishwick 2013). This could extend to other phonetically-reduced negative tag variants as well, just as other forms with elided consonants such as *gimme* (“give me”) and *wanna* (“want to”) are said to be stigmatised (O’Grady 2013: 52). The awareness and negative evaluation of stigmatised items decreases the likelihood that they will be used in conversation with a non-familiar interviewer. Thirdly, reduction processes such as assimilation, elision and vowel reduction are features of more casual speech styles (Giegerich 1992: 289; Laver 1994: 68; Kirchner 2001: 26), which are more likely to arise when speaking to someone familiar.

Hypothesis 2: The more similar the interviewer’s variety of English is to the interviewee’s, the more likely the interviewee is to use phonetically-reduced negative tag variants.

The DECTE interviewers who (like the interviewees) are from the North East of England have a special insider status: they have an advantage in conducting sociolinguistic interviews as they are already familiar with the community under study and its culture (Tagliamonte 2006: 47). Speakers use more non-standard variants in conversation with people who share the same characteristics, such as the same race and ethnicity (Douglas-Cowie 1978; Rickford & McNair-Knox 1994) or dialect (Douglas-Cowie 1978). Under the conception of phonetically-reduced tag variants as non-standard, higher relative frequencies of these variants are expected when participants are interviewed by someone who speaks the same variety of English as they do. Speakers are likely to feel more at ease conversing with someone who speaks similarly to them. They may be less likely to feel that their language is being monitored, or more likely to forget that they are being recorded. The linguistic distance between individuals increases when a Tyneside speaker is interviewed by someone from a

region of the UK other than the North East of England, potentially leading to a less casual situation and speech style. Participants are expected to alter their speech even further in interview with a non-native speaker of English from outside the UK (as all of the non-native speaker interviewers are in my sample), who have the greatest linguistic distance between them since they do not share the same first language and have spent most of their lives in different countries. Interviewees in these situations may adopt FDS, with less phonetic reduction (Hatch 1983: 183–4), leading to greater use of full negative tag variants as opposed to phonetically-reduced variants. However, as noted earlier, these features of FDS are also typical of more formal speech styles. Although the similarities between FDS and more formal speech styles in terms of phonetic reduction lead to ambiguity as to which of these registers (if any) the speakers adopt in interview with a non-native speaker, in either case we expect higher frequencies of phonetically-reduced negative tag variants.

6.4. Coding

The sample of 205 negative tag tokens from the Tyneside data in Chapter 5 (section 5.6.6) was coded further to test the hypotheses above. I coded for the two factors described in section 6.3: the relationship between the interviewer and interviewee, and the interviewer's variety of English. These were established by consulting the metadata that the interviewers/interviewees provided, made available by the DECTE compilers, as well as information given by the speakers in the interviews.

6.4.1. Interviewer-interviewee relationship

The relationship between the interviewer and each interviewee in the recordings was coded as one of five options, on a continuum from more to less intimate: family, friends, acquaintance-friends, friend-of-a-friend, and strangers.⁷⁷ Details of how these five groups were defined are given below. One interview was excluded as there was insufficient information to ascertain the relationship between the interviewer and interviewees, leaving 192 tokens remaining for analysis.

⁷⁷ Although speakers' social network score (see Milroy & Margrain 1980) could also have been used in such a scenario, it cannot be implemented in the present study given the restricted nature of the corpus metadata.

Family

The ‘family’ group consists of three people who are non-immediate relatives of their interviewer.⁷⁸

Friends

Interviewees and their interviewers who are ‘friends’ have a high degree of familiarity and have regular contact with one another, often having known each other through school, university or work (but in the latter case, being more than just colleagues). They have close personal relationships in that they socialise with one another voluntarily outside their educational institution or workplace.

Acquaintance-Friends

Acquaintance-friends include neighbours and relatively new work colleagues. Others in this category have one or two degrees of separation between them, e.g. the interviewee may be a friend of the interviewer’s partner. Acquaintance-friends are therefore somewhat familiar with one another and have regular contact, but do not interact as often as friends do.

Strangers

The interviewers and interviewees who are strangers met only for the purpose of the recording and the only contact that they had beforehand was to arrange the interview.

6.4.2. Interviewer’s variety of English

The interviewer’s variety of English was coded as North East, Other UK or Non-native, as follows.

North East

Interviewers from the North East of England had been born and raised in the region and had lived there for most of their lives. Like the interviewees (all of whom are from Tyneside), they are native speakers of a variety of North East English.

⁷⁸ The number of speakers in this group is small because I selected only same-sex dyads to maintain comparability with the Glasgow and Salford recordings (see Chapter 2, section 2.3), which meant that mixed-sex pairs of relatives that are more commonly interviewed in DECTE (e.g. parents) had already been excluded.

Other UK

‘Other UK’ interviewers had been born, raised and spent most of their lives in a region of the UK other than the North East of England. All are native speakers of their particular variety of English.

Non-native

‘Non-native’ interviewers are those who speak English as a second or additional language and had been born, raised and spent most of their lives outside the UK. Three non-native speakers conducted interviews in my sample and they are from Saudi Arabia, Thailand and China, respectively.⁷⁹

6.4.3. Summary of interviewee and interviewer demographic

Table 6.1 summarises the interviewer-interviewee relationships and the interviewers’ varieties of English for each speaker featured in my subsequent analyses, as well as the speakers’ age and sex as established earlier in Chapter 2. The two speakers recorded in each interview always had the same relationship with the interviewer, except for 2011_SEL2091_003.⁸⁰

⁷⁹ Kangatharan *et al.* (2012) found in their controlled experimental study that ‘foreign physical appearance’ rather than ‘foreign accent’ was the most relevant factor conditioning speakers’ hyperarticulation of vowels in FDS. Since DECTE does not provide visual data to be able to test the former factor, I analyse the interviewer’s variety of English instead, while acknowledging that speakers may additionally attend to the ethnicity or race of their interviewer (see Douglas-Cowie 1978; Rickford & McNair-Knox 1994).

⁸⁰ One interviewee in 2011_SEL2091_003 was a family member of the interviewer, while the other was a stranger. The relationship between *interviewees* may also affect their language use, but this was not examined here because all of the pairs have a relatively close relationship (e.g. family, friends) or at least have regular contact with one another (e.g. colleagues). The pairs are usually self-selected, meaning speakers choose to be recorded with someone that they know; none of the pairs of interviewees are strangers.

Interviewer-interviewee relationship	Interview	Interviewer's variety	Interviewees	Age	Sex
Family	2009_SEL2091_017	Other UK	GB/127	O	M
			JE/988	O	M
	2011_SEL2091_003	Other UK	MD/59	O	F
Friends	2007_SEL2091_009	North East	PM/85	Y	M
			SM/84	Y	M
	2007_SEL2091_031	North East	RB/16	Y	M
			GQ/21	Y	M
	2010_SEL2091_007	North East	SM/135	Y	F
			CB/848	Y	F
	2010_SEL2091_014	North East	AS/149	Y	F
			SB/151	Y	F
Acquaintance-Friends	2007_SEL2091_003	Other UK	LR/195	Y	F
			JS/221	Y	F
	2007_SEL2091_026	Other UK	AL/912	Y	M
			RM/512	Y	M
	2007_SEL8163_001	Non-native	MM/123	O	F
			MM/456	Y	F
	2007_SEL2091_004	Other UK	MP/158	Y	F
BB/929			Y	F	
Strangers ⁸¹	2007_SEL8163_005	Non-native	JR/456	O	M
	2007_SEL2091_049	Other UK	JS/169	Y	M
			PS/243	Y	M
	2008_SEL2091_012	Other UK	AA/613	Y	M
			BB/329	Y	M
	2008_SEL2091_019	Non-native	CW/123	O	F
			MS/321	O	F
	2009_SEL2091_038	Other UK	B/145	Y	M
2010_SEL2091_017	Other UK	SG/121	O	M	
2011_SEL2091_003	Other UK	EL/52	O	F	

Table 6.1: Interviewer and interviewee information for the Tyneside sample

Table 6.1 reveals some areas of intersection between the social characteristics of the interviewees, their relationship with the interviewer, and the interviewer's variety of English. All speakers in the family group are older and were interviewed by someone speaking an 'Other UK' variety. All of those in the friends group are young and were interviewed by someone from the North East of England – in fact, this is the only group where North East interviewers are found. The non-native interviewers meanwhile tended to record older speakers and have weaker relationships with their interviewees (acquaintance-friends or

⁸¹ Speakers DK/131 (OM), P/416 (YM) and BB/530 (OM), all interviewed by strangers, are not included in Table 6.1 because they did not produce any negative tag tokens in the final sample.

strangers). In the following section, I present quantitative analyses to disentangle these factors with a view to understanding their effects and ascertaining which contribute most significantly to the choice of phonetically-reduced negative tag variants over full variants.

6.5. Results of quantitative analysis

This section examines the extent to which Tyneside speakers reduce their negative tags according to their relationship with the interviewer and the interviewer’s variety of English (6.5.1), before examining additional effects of the interviewee’s age and sex (6.5.2) and the function of the negative tags (6.5.3). The section culminates with mixed-effects logistic regression analysis to establish the relative impact of these factors in determining speakers’ negative tag realisations (6.5.4).

6.5.1. Interviewer effects

Table 6.2 shows the relative frequency of tag variants (full, reduced, coalesced) according to the speakers’ relationship with their interviewer and the interviewer’s variety of English, from the 192 tags in the sample. The shaded rows in Table 6.2 represent the interviewer’s variety of English (North East, Other UK, Non-native), while the rows within each of these three groups show the interviewer-interviewee relationship.

	Full		Reduced		Coalesced		Total N
	%	N	%	N	%	N	
North East							
Friends	35.1%	20	14%	8	50.9%	29	57
Other UK							
Family	96%	24	4%	1	0%	0	25
Acquaintance-Friends	69%	29	11.9%	5	19%	8	42
Strangers	86.4%	38	4.5%	2	9.1%	4	44
Non-native							
Acquaintance-Friends	100%	14	0%	0	0%	0	14
Strangers	100%	10	0%	0	0%	0	10

Table 6.2: Distribution of negative tag variants according to the interviewer-interviewee relationship and the interviewer’s variety of English

The figures reveal a sharp contrast between the high rate of phonetically-reduced negative tags for speakers interviewed by a friend from the North East (74.9%) and the absence of these variants amongst people interviewed by non-native speakers (0%), who instead use full variants categorically. The non-native group and its two sub-categories (Acquaintance-Friends and Strangers) has fewer tokens than the others in Table 6.2 (N=24 in total), but the categorical nature of the effect in that group is nonetheless very striking. The central group of speakers in Table 6.2, who were interviewed by people from the UK outside the North East, is more variable. Curiously, being interviewed by a family member does not entail high rates of tag reduction/coalescing – quite the contrary: this group uses full tag variants near-categorically, which bears similarity to the group interviewed by strangers. However, the speakers who are acquaintance-friends with their interviewers use phonetically-reduced variants more than the strangers, as expected. Although a chi-squared value cannot be calculated for Table 6.2 because of some sparsely-populated cells, collapsing the reduced and coalesced categories into one group as phonetically-reduced variants (as previously done for the regression in Chapter 5, section 5.6.6) allows this to be computed and it shows that the distribution is significant ($\chi^2=59.75$, d.f.=5, $p<0.001$).

These results are consistent with Hypothesis 1: the closer the relationship between interviewees and interviewer, the more likely the interviewee is to reduce/coalesce their negative tags. The patterns are in keeping with the observations noted in section 6.2 that non-standard variants occur at higher frequencies in conversation with more familiar interviewers (Douglas-Cowie 1978; Coupland 1980; Russell 1982; Thelander 1982; Rickford & McNair-Knox 1994). This likely reflects a more casual speech style featuring greater phonetic reduction (Giegerich 1992: 289; Kirchner 2001: 26; Hughes *et al.* 2013: 8). The patterns observed for the family group are unexpected under this hypothesis, but may arise due to other factors. Firstly, the family members may not have as close a relationship as initially thought. None of these interviewers are from the North East, but another region in the UK. Hence, these interviewers may not have had regular face-to-face contact with their interviewees who are from the North East, particularly as none of the relatives are immediate family like parents or siblings. Secondly, these results may indicate that family members are not as relaxed as friends are, for example, in an interview context. Schilling (2013: 124) warns that relatives may find sociolinguistic interviews awkward, especially if the interviewer asks questions where both the interviewer and interviewee(s) know the answers but they are

asked simply to elicit speech for the purpose of the recording. In these cases, the interview is not representative of the typical conversation that relatives have with one another, potentially causing speakers to pay greater attention to their speech and use more standard variants. Thirdly, the family members in my sample are all older speakers. The distinctive result here could therefore reflect an age-based difference, as explored in the next section.

Another possible explanation for the unexpected result for family members is that the interviewer's variety of English, the focus of Hypothesis 2, has a greater impact on the variation than the interviewer-interviewee relationship. The results in Table 6.2 are consistent with Hypothesis 2, as the speakers interviewed by someone from the North East have the highest rates of tag reduction, followed by those in conversation with an Other UK interviewer, then, finally, those recorded by a non-native speaker. These findings demonstrate the advantage of insider status (as a North East interviewer) in eliciting more casual speech (Tagliamonte 2006: 47) and indicate that people may adjust their speech towards more full vowel and consonantal articulation when talking to non-native speakers (Hatch 1983: 183–4) or as a reflection of a more formal speech style (Giegerich 1992: 289; Laver 1994: 68; Kirchner 2001: 26; Hughes *et al.* 2013: 8).

As noted in section 6.4.3, the two interviewer effects are not always orthogonal, as we do not have the full range of possibilities in the data – e.g. North East interviewers always interview friends, and non-native interviewers always interview people that they have less intimate relationships with. These effects can be investigated further in future using an experimental design whereby North East/Other UK/Non-native interviewers converse with speakers who they have different types of relationship with.

6.5.2. Interviewer effects in interaction with age and sex

Due to the imbalances in the sample noted in section 6.4.3, I now explore potential interactions between the interviewer effects and the social factors of age and sex. The cross-tabulation in Table 6.3 is examined to assess whether the effects of age and sex on variant choice that were found in Chapter 5 are independent effects or a by-product of an underlying interviewer effect.

	Age & sex	Full		Reduced		Coalesced		Total N
		%	N	%	N	%	N	
North East								
Friends	YM	26.5%	13	16.3%	8	57.1%	28	49
	YF	(87.5%)	7	(0%)	0	(12.5%)	1	8
Other UK								
Family	OM	100%	18	0%	0	0%	0	18
	OF	(85.7%)	6	(14.3%)	1	(0%)	0	7
Acquaintance-Friends	YM	28.6%	4	21.4%	3	50%	7	14
	YF	89.3%	25	7.1%	2	3.6%	1	28
Strangers	YM	82.1%	23	3.6%	1	14.3%	4	28
	OM	(100%)	5	(0%)	0	(0%)	0	5
	OF	90.9%	10	9.1%	1	0%	0	11
Non-native								
Acquaintance-Friends	YF	(100%)	3	(0%)	0	(0%)	0	3
	OF	100%	11	0%	0	0%	0	11
Strangers	OM	(100%)	1	(0%)	0	(0%)	0	1
	OF	(100%)	9	(0%)	0	(0%)	0	9

Table 6.3: Distribution of negative tag variants according to age and sex, plus the interviewer-interviewee relationship and the interviewer's variety of English

Table 6.3 shows that the effects of the interviewer's relationship with their interviewees and the interviewer's variety of English are generally maintained when considered in interaction with speakers' age and sex. The distinctive result for 'Family' identified in section 6.5.1 is in fact consistent with the other groups of older speakers, indicating that older speakers have relatively high rates of full variants regardless of the interview situation. Young male speakers, in contrast, generally use phonetically-reduced variants much more frequently than the other social groups. These social trends are in keeping with those identified in Chapter 5. However, there is a dramatic reversal in young men's preferred choice of variant between interview contexts, with low rates of full variants (<30%) in the 'North East Friends' and 'Other UK Acquaintance-Friends' groups but high rates (over 80%) in the 'Other UK Strangers' category. The social trends in usage therefore weaken or disappear when speakers are interviewed by an unfamiliar person who speaks a dialect that differs from their own.

6.5.3. Interviewer effects in interaction with tag function

To further test the robustness of the interviewer effects established so far, I now examine whether these patterns interact with the discourse-pragmatic function of the tags. As discussed in Chapter 5, both reduction in form and pragmatic expansion are associated with more advanced stages of grammaticalisation within the tag system (Tottie & Hoffmann 2009; Pichler 2013, 2016).

I begin with an investigation of (inter)subjectivity, as investigated in Chapter 5. Subjective functions are those concerning ‘the speaker and the speaker’s beliefs and attitudes’ while intersubjective functions are those involving ‘the addressee and the addressee’s face’ (Traugott 2010: 30). Both types of meaning can be associated with items undergoing grammaticalisation, but intersubjective functions develop later than subjective ones (Traugott 2010: 34). In this vein, I hypothesised in Chapter 5 that more phonetically-reduced negative tag variants (associated with more advanced grammaticalisation) would correlate with intersubjective functions. This was found to be true in Glasgow and Salford, but not in Tyneside. Nevertheless, it is worth establishing whether there is an underlying interviewer-function effect in Tyneside that was not observable in the earlier analyses of function. The results of this investigation are presented in Table 6.4.

		Full		Reduced		Coalesced		Total N	% of total
		%	N	%	N	%	N		
North East									
Friends	Subjective	38.5%	5	0%	0	61.5%	8	13	22.8%
	Intersubjective	34.1%	15	18.1%	8	47.7%	21	44	77.2%
Other UK									
Family	Subjective	(100%)	8	(0%)	0	(0%)	0	8	32%
	Intersubjective	94.1%	16	5.9%	1	0%	0	17	68%
Acquaintance-Friends	Subjective	50%	5	30%	3	20%	2	10	23.8%
	Intersubjective	75%	24	6.3%	2	18.8%	6	32	76.2%
Strangers	Subjective	100%	11	0%	0	0%	0	11	25%
	Intersubjective	81.8%	27	6.1%	2	12.1%	4	33	75%
Non-native									
Acquaintance-Friends	Subjective	(100%)	2	(0%)	0	(0%)	0	2	14.3%
	Intersubjective	100%	12	0%	0	0%	0	12	85.7%
Strangers	Subjective	-	0	-	0	-	0	0	0%
	Intersubjective	100%	10	0%	0	0%	0	10	100%

Table 6.4: Distribution of negative tag variants according to (inter)subjectivity, plus the interviewer-interviewee relationship and the interviewer's variety of English

As expected given the results of the original analysis in Chapter 5, function has relatively little impact on the choice of tag variant in Tyneside. Within each of the six interviewer variety/relationship categories, the relative frequencies of full variants (vs. those that are phonetically-reduced) are fairly similar between subjective and intersubjective functions. Only the Other UK Acquaintance-Friends and Other UK Strangers groups have more substantial variation in this regard, but the trend is different for each. There is also variation in the overall frequency of subjective vs. intersubjective tags between the six interview contexts. As the percentages in the final column of Table 6.4 show, the frequencies of these two tag functions fluctuate slightly according to the interview type, most notably in the non-native interviewer contexts where intersubjective tags appear almost categorically. As intersubjective meanings concern 'the addressee and the addressee's face' (Traugott 2010: 30) and consist of mitigating, involvement-inducing and aligning tags (see section 5.5.4), this result could reflect a heightened use of politeness strategies when conversing with an outsider to the community compared to a familiar interviewer. Regardless of the interview context, however, intersubjective tags are consistently the majority.

An additional cross-tabulation was created to see whether interviewer effects correlate with tag function in terms of conducive vs. non-conductive meanings, as presented in Table 6.5. Conducive tags are intended to elicit a response from the hearer, whereas non-conductive tags are not (Cheshire 1981: 375, 1982; Pichler 2013). As both phonetic reduction and the development of non-conductive (from conducive) meanings are associated with the grammaticalisation of negative tags (Pichler 2013), the original hypothesis in Chapter 5 was that these two factors would correlate. The original distributional analyses for Tyneside (but not Glasgow or Salford) were consistent with this hypothesis but the factor only neared significance in the Tyneside regression model.

		Full		Reduced		Coalesced		Total N	% of total
		%	N	%	N	%	N		
North East									
Friends	Conducive	40.6%	13	12.5%	4	46.9%	15	32	56.1%
	Non-conductive	28%	7	16%	4	56%	14	25	43.9%
Other UK									
Family	Conducive	100%	13	0%	0	0%	0	13	52%
	Non-conductive	91.7%	11	8.3%	1	0%	0	12	48%
Acquaintance-Friends	Conducive	79.3%	23	3.4%	1	17.2%	5	29	69%
	Non-conductive	46.2%	6	30.8%	4	23.1%	3	13	31%
Strangers	Conducive	88.2%	30	5.9%	2	5.9%	2	34	77.3%
	Non-conductive	80%	8	0%	0	20%	2	10	22.7%
Non-native									
Acquaintance-Friends	Conducive	(100%)	9	(0%)	0	(0%)	0	9	64.3%
	Non-conductive	(100%)	5	(0%)	0	(0%)	0	5	35.7%
Strangers	Conducive	(100%)	9	(0%)	0	(0%)	0	9	90%
	Non-conductive	(100%)	1	(0%)	0	(0%)	0	1	10%

Table 6.5: Distribution of negative tag variants according to conduciveness, plus the interviewer-interviewee relationship and the interviewer's variety of English

As identified in Chapter 5, section 5.6.4, conduciveness has a greater impact upon the choice of tag variant than (inter)subjectivity. Table 6.5 shows that tags with non-conductive functions consistently take phonetically-reduced variants to a greater extent than those which are conducive in function, except in interviews conducted by non-native speakers where the rates are the same, with the frequency of full variants at 100%. Turning attention to the final column of Table 6.5, we can see that the relative frequency of conducive and non-conductive

tags varies across each interview context, but that conducive tags are always the majority. The interviewer-interviewee relationships deemed the closest – friends and family – exhibit the highest frequencies of non-conductive tags. Acquaintance-friends have slightly lower percentages, followed by strangers. Strangers interviewed by non-native speakers of English have the lowest percentage of non-conductive tags of any group (only 10%). These results suggest that the closer the relationship between speaker and interviewer, and the more similar their variety of English, the more likely speakers are to use non-conductive tags. Non-conductive tags typically express stance or agreement with other speakers (Pichler 2013: 200), which could indicate that conversation between people who know each other well is more likely to feature expressions of attitudes and opinions. Speakers who are less familiar with their interlocutor use more conducive tags, which often request information or involvement (Pichler 2013: 200) – perhaps in an effort to maintain the flow of conversation with someone they do not know very well.

6.5.4. Regression analysis

To establish the relative impact of the factors considered thus far, I now conduct a mixed-effects logistic regression. Reduced and coalesced tags are henceforth collapsed into one category of ‘phonetically-reduced’ tags, to maintain similarity with the previous regression analyses of this variable in Chapter 5. This distinguishes between full variants and those that have any extent of phonetic reduction, as well as satisfying the requirement for a binary dependent variable when running this type of regression.

The preceding distributional analyses in this chapter have shown that the interviewer’s relationship with their interviewees, the interviewer’s variety of English and the interviewees’ age and sex all affect the choice of tag variant in Tyneside. However, I have emphasised that the interviewer effects and speaker age are not always orthogonal, e.g. North East interviewers always interviewed friends, who were all young. The regression therefore contains one factor that combines the interviewer’s variety, relationship with the interviewee and the speaker’s age. This ensures that the orthogonality requirement of the statistical model is maintained (Tagliamonte 2012: 132) while still allowing for the investigation of the impact of all three factors by comparing their estimates and significance levels. In this group, each level is labelled with the interviewer’s variety given first, then the interviewer-interviewee

relationship, followed by the interviewee's age. For example, an older speaker who was recorded by a stranger speaking a native variety of UK English other than North East English would fall into the 'OtherUK-Strangers-Older' group.

Some groups had to be excluded from the model because of their (near-)categorical choice of variants. These are (i) people interviewed by non-native speakers, as they used full tag variants categorically (24 tokens), and (ii) people interviewed by family members, as they used full variants 96% of the time (25 tokens). These exclusions reduce the sample size to 143, which although relatively small, is sufficient for the model to run effectively. The token distribution satisfies the standard minimum recommendations for at least 10 tokens per predictor (Pardoe 2012) or per cell (Guy 1980). The majority of cells (8 out of 10) in fact have over 40 tokens. The final set of levels within this factor is as follows:

- NorthEast-Friends-Younger
- OtherUK-AcquaintanceFriends-Younger
- OtherUK-Strangers-Younger
- OtherUK-Strangers-Older

Three other factors tested in the original regression analyses in Chapter 5 were also included in this new model: verb type (DO, BE), conduciveness (conductive, non-conductive) and sex (male, female). Speaker is included as a random effect, as in the original model, to account for any remaining inter-speaker variation. Table 6.6 shows the results of this mixed-effects logistic regression indicating the relative importance of these factors in the variation between phonetically-reduced negative tag variants (reduced or coalesced) over full variants.

	Tag reduction					
Total N	143					
AIC	128.5					
Log Likelihood	-56.2					
Deviance	112.5					
	Estimate	Std. error	Z-value	p-value	Sig.	% N
(Intercept)	-6.2137	1.4017	-4.433	9.30e ⁻⁰⁶	***	
Verb type <i>Reference level: DO</i>						19.4 67
BE	2.1201	0.5294	4.005	6.21e ⁻⁰⁵	***	56.6 76
Conduciveness <i>Reference level: Conducive</i>						30.5 95
Non-conductive	0.7399	0.5000	1.480	0.138953		56.2 48
Sex <i>Reference level: Female</i>						10.6 47
Male	2.4784	0.6760	3.666	0.000246	***	53.1 96
Interviewer variety, relationship and speaker's age <i>Reference level:</i>						
<i>OtherUK-Strangers-Older</i>						6.2 16
NorthEast-Friends-Younger	3.4264	1.2180	2.813	0.004907	**	64.9 57
OtherUK-AcquaintanceFriends-Younger	2.7538	1.2423	2.217	0.026646	*	31.0 42
OtherUK-Strangers-Younger	0.6440	1.2724	0.506	0.612790		17.9 28
Speaker Random standard deviation	0					

Table 6.6: Mixed-effects logistic regression of the combined effect of factors in the reduction of negative tags in Tyneside, including interviewer effects

Comparing these results with those in the original analysis presented in Chapter 5, section 5.6.6, we can see that the effects of verb type and sex remain the same (with sex even more significant than before), while conduciveness (trialled as a factor in preliminary analyses of the variable) once again only nears significance. The inclusion of the interaction factor (interviewer's variety, relationship and speaker's age) therefore has not altered patterns of the other independent variables, but has a significant additional effect. A hypothetical alternative scenario where the new interaction factor was significant but speaker sex lost significance and/or changed its overall pattern would suggest the original effect of speaker sex was not a true effect after all, but was an epiphenomenon of underlying interviewer effects. The results therefore confirm that the interviewer effects apply in addition to the ones previously observed. One difference between the models is that the standard deviation for the random effect of speaker has reduced to zero, i.e. the new model has estimated that there is no substantial inter-speaker variation with respect to this variable once the other factors have

been considered. The interviewer effects therefore add to the explanatory power of the model and account for some of the unexplained inter-speaker variation, though the smaller sample size inevitably reduces some of the inter-speaker variation as well.

The results for the new interaction factor are consistent with Hypothesis 1 (speakers with a closer relationship with their interviewers will use more phonetically-reduced tag variants) and Hypothesis 2 (speakers interviewed by someone whose dialect is more similar to their own will use more phonetically-reduced tag variants). The ranking of the four levels in the group in terms of their relative frequency of phonetically-reduced tags is as hypothesised: NorthEast-Friends-Younger > OtherUK-AcquaintanceFriends-Younger > OtherUK-Strangers-Younger > OtherUK-Strangers-Older. The NorthEast-Friends-Younger group is the only one to have phonetically-reduced tags as the majority variant (>60%), demonstrating that being interviewed by a friend from the same region leads to especially high rates of tag reduction. Speakers interviewed by someone less familiar and from somewhere in the UK other than the North East of England use phonetically-reduced variants to a lesser extent and these percentages decrease further as the interviewer-interviewee relations become less familiar. Although the OtherUK-Strangers-Younger group has a higher overall frequency of phonetically-reduced variants (as well as a higher estimate) than the OtherUK-Strangers-Older group, the model does not distinguish the two statistically. Whether this lack of age-based differentiation applies to other interview situations cannot be established, as the speakers in the other groups in the interaction factor are all young; there are no older speakers there for comparison. Nevertheless, there is no age effect between speakers interviewed by someone unfamiliar who speaks a different dialect to their own.

6.6. Discussion

This chapter has investigated the impact of situational factors on speakers' choice of negative tag variants in Tyneside. As the recordings in my Tyneside data were conducted by different student interviewers from various parts of the UK and abroad, this section presented analyses of two potential interviewer effects on speakers' choice of negative tag variant: the interviewer-interviewee relationship and the interviewer's variety of English. Hypothesis 1 was that the closer the interviewer-interviewee relationship, the more likely the interviewee is to use phonetically-reduced negative tag variants. Hypothesis 2 was that the more similar the

interviewer's variety of English is to the interviewee's, the more likely the interviewee is to use phonetically-reduced negative tag variants. These hypotheses were derived from previous research showing that speakers use more casual speech styles in conversation with people they are familiar with compared to less familiar speakers and that non-standard variants appear more frequently in a more casual style (Douglas-Cowie 1978; Coupland 1980; Russell 1982; Thelander 1982; Rickford & McNair-Knox 1994). Furthermore, when interviewed by someone who shares the same dialect, speakers are more likely to use non-standard variants (Douglas-Cowie 1978). With non-native speakers, interviewees may also use FDS, a speech register with less phonetic reduction (Hatch 1983: 183–4), which would lead to greater use of full negative tag variants as opposed to those which are phonetically-reduced.

Results from the cross-tabulation of the interviewer-interviewee relationship and interviewer's variety of English were consistent with Hypotheses 1 and 2. Frequencies of phonetically-reduced negative tag variants ranged from 74.9% among speakers interviewed by a friend from the North East of England down to 0% for speakers recorded by an acquaintance-friend/stranger who was a non-native speaker of English. The interviewer-interviewee relationship is therefore vital in reducing the effect of the Observer's Paradox (Labov 1972d: 209). The effect whereby non-native speaker interviewers elicited only full tag variants from their interviewees was consistent with the characterising features of both FDS and more formal speech styles discussed in the introduction to this chapter; both can feature more precise (and sometimes hyper-) articulation, less vowel reduction and less contraction. However, the interviewer-interviewee relationship and the interviewer's variety of English were not always orthogonal. The speakers recorded by non-native speakers were always acquaintance-friends or strangers, while the speakers recorded by North East interviewers were always friends. The styles used by speakers in these two contexts therefore represent the least casual and most casual styles respectively, and the vast difference in their respective relative frequency of phonetically-reduced variants (74.9% vs. 0%) reflects this.

The analysis confirmed that the social trends (sex and age) in tag variation previously observed in Chapter 5 are maintained when the interviewer effects are taken into consideration. However, social effects in variant choice weaken when speakers are interviewed by non-familiar, non-native speakers, as shown by the large reduction in the relative frequency of phonetically-reduced variants used by young men in such contexts. Tag

form and function correlates were also considered in tandem with the interviewer effects, but the impact was limited compared to other factors. Some fluctuations were uncovered, e.g. speakers interviewed by non-native speakers used a higher percentage of intersubjective tags than those recorded by British English speakers. Non-conductive tags became more frequent as the relationship between interviewer and interviewee become more intimate. Thus, the choice of interviewer in terms of their relationship with the interviewee and their dialect can alter the frequency of tag functions, perhaps reflecting the types of exchanges between such speakers. For example, the higher percentage of intersubjective tags used in conversation with a non-native speaker may represent greater attention towards the interviewer's face as a means of being polite towards an outsider to the community. The higher relative frequency of non-conductive tags when speakers are recorded by a friend from the local area may have been triggered by increased expression of attitudes and opinions, or even debate, amongst people who know each other, since there is less face to lose in such situations.

The mixed-effects logistic regression corroborated the distributional analyses and the original regression results in Chapter 5, as no factors lost significance or changed their effect between the two models. The internal and social effects have greatest significance, but the interviewer effects improve the explanatory power of the model as the interviewer effects were significant (in interaction with age) in addition to the original factors. The interaction group appears to explain much of the residual variation (as measured by the standard deviation for the random effect of speaker) from the original model, highlighting the importance of considering situational effects in linguistic analyses of speech data, particularly if datasets contain many speakers interviewed by different people. The evidence that negative tags undergo style-shift, coupled with the fact that they are stigmatised (see, e.g., the definition of *innit* as “the vulgar form of *isn't it*” in “*innit, int.*”, OED Online), suggests that they are not just indicators associated with particular social groups but they are in fact sociolinguistic markers (Labov 2001: 196).

As language variation and change research fundamentally concerns the language production of speakers, with primary focus on internal and social factors, the interviewer's role is sometimes treated as tangential and having little importance, if any, to the analysis. My results emphasise that the impact of the interviewer on data ought to be given more attention and consideration in the analysis and interpretation of results. In practical terms, interviewers

who know their participants well and speak the same dialect as them appear to have the best chance of eliciting casual speech and a higher frequency of non-standard variants from speakers. Of course, this may depend on other factors too, such as the topic (Douglas-Cowie 1978: 43; Coupland 1980; Rickford & McNair-Knox 1994; Schilling-Estes 2004). Such predictors were outside the scope of the present study but are part of a myriad of situational factors that may affect speakers' language use in an interview situation, which are worthy of further investigation. For example, do such factors operate consistently across tasks, cultures and with different linguistic variables, i.e. those at different levels of the grammar (phonological, grammatical, lexical, discourse-pragmatic) or of different types (indicators, markers, stereotypes)? Any further insight we gain into the nature of the sociolinguistic interview (and similar situations) and how this can impact upon our data can only benefit the understanding and interpretation of findings. Even though using pre-existing corpora has some limitations, like this methodological inconsistency in the use of different interviewers, these are not insurmountable and do not negatively impact upon the results. As long as corpus compilers provide metadata about the interviewers, any potential effect that they might have can be explored (see also Pichler 2010). In doing so, scholars can disentangle the effects of situational factors from social factors (Bailey & Tillery 2004: 28), producing more reliable and informative insights into language variation as a result.

Chapter 7. Conclusion

7.1. Review of thesis

The aim of this thesis was to investigate variation in how negation is expressed in the English dialects spoken in Glasgow (Scotland), Tyneside (North East England) and Salford (North West England), focusing on three linguistic variables which warranted further scholarly attention: (i) *not*-/*no*-negation and negative concord; (ii) non-quantificational *never* and *didn't*; (iii) negative tags. The overarching approach was to undertake quantitative variationist sociolinguistic analysis of these variables in recordings of informal conversation held in pre-existing dialect corpora, using the comparative method (Poplack & Tagliamonte 2001). The analysis integrated insights from formal linguistic theory into the variationist analysis in defining the linguistic variables and their contexts, as well as formulating hypotheses about the distribution of variants which were subsequently tested in usage data. This approach was adopted to address four central research questions:

1. How is variation in English negation constrained by linguistic factors?
2. To what extent do the linguistic constraints on negation operate consistently across Glasgow, Tyneside and Salford English?
3. Does English negation vary according to external factors?
4. To what extent do the linguistic variables appear to be undergoing change in each dialect?

The results of my investigation have revealed that the three variables of negation are highly constrained by internal factors such as verb type and lexical aspect, which operate consistently across the three dialects studied. Discourse-pragmatic factors apply consistently across the communities for some variables (*not*/*no*/concord and *never*/*didn't*) but not others (negative tags). In contrast to these linguistic effects, the social factors of speaker age and sex do not exhibit uniform effects for each variable nor for each community. That said, their magnitude and significance can, in certain cases, support other lines of evidence to suggest that the communities are at different stages in relation to how far linguistic changes have advanced.

This chapter reviews these findings in further detail, explaining their contribution to our existing knowledge of variation on different levels of language structure (section 7.2) and their significance in relation to our understanding of cross-dialectal variation and change (section 7.3). This is followed by discussion of the theoretical and methodological implications of my analysis in terms of integrating formal theory into a quantitative variationist analysis (section 7.4) and the sociolinguistic interview as a data collection method (section 7.5). Section 7.6 outlines some of the potential avenues for further research.

7.2. Variation in English negation in relation to different levels of linguistic structure

As explained in Chapter 1, the three linguistic variables investigated in this thesis were selected for their potential to reveal new insights into variation in English negation in terms of its internal constraints and the role of the external factors of speaker age, sex and locality. This section focuses on what my results reveal about negation and its relation to different levels of linguistic structure, beginning with the internal linguistic constraints before discussing the role of discourse-pragmatic function.

7.2.1. Internal linguistic constraints

One of the most strikingly consistent findings of my investigation is that internal factors have the greatest impact in determining speakers' choice of negation strategy, not only for each of the three linguistic variables considered but also across varieties of English. Firstly, variation between *not*/*no*-negation and negative concord is most significantly affected by the type of main verb, with lexical verbs favouring *not*-negation and functional verbs (BE, HAVE, HAVE GOT) favouring *no*-negation. Secondly, the distribution of *never* and *didn't* is most significantly affected by lexical aspect. *Never*'s restriction to achievement predicates in Type 2 "window of opportunity" contexts is reflected in the form's propensity to occur in achievement predicates in its non-standard Type 3 uses that were historically a later development. Thirdly, negative tags with BE are more likely to become phonetically-reduced than those with other auxiliaries. The results emphasise that negation is highly sensitive to the nature of the verb and its arguments, reflecting its scope (either inherently or via movement) over the verb in cases of sentential negation (Penka 2016: 304–5).

Indeed, the position of negation relative to other elements in the clause was a crucial diagnostic in testing Account 1 (based on Zeijlstra 2004) and Account 2 (based on Kayne 1998; Svenonius 2002; Zeijlstra 2011) of *not*-negation, *no*-negation and negative concord. In Account 1, all three variants have the underlying structure: a negative marker *n't/not* with [iNEG] in NegP (to result in *not*-negation) which can agree with an additional *no*-form that has [uNEG] (negative concord), or a covert negative operator with [iNEG] in NegP which agrees with a *no*-form that has [uNEG] (*no*-negation). In Account 2, *not*-negation and negative concord are derived in the same way as Account 1 but *no*-negation is DP-internal negation which must move to NegP for sentential scope. Based on Harvey's (2013) proposal that *not*-/*no*-negation may be sensitive to the fact that lexical verbs do not raise for tense and agreement (see Pollock 1989; Lasnik 2000), I proposed under Account 1 that *no*-negation and negative concord would be disfavoured with lexical verbs and constructions with auxiliaries. This was because the main verb resides between NegP and the indefinite item and thus interferes in the Agree relation required for these two variants. Under Account 2, the DP-internal *no*-negation must move over the intervening verb, leading to the expectation that only *no*-negation would be disfavoured. My analysis of the complexity of the verb structure (i.e. the presence of auxiliaries) did not conclusively support one account over the other, due to the low number of tokens of this kind with negative concord. However, *not*-negation and negative concord favoured lexical verbs while *no*-negation favoured functional verbs overall, strongly supporting Account 2 over Account 1.

The analysis of *never* and *didn't* in Chapter 4 similarly emphasises the importance of the inherent properties of the verb in variation in the expression of negation. Lexical aspect contributes to the differentiation of the Type 2 "window of opportunity" and Type 3 generic negator use of *never*, as the former are licensed only with achievement predicates. Furthermore, it has significant gradient effects on the distribution of Type 3 *never* and *didn't*. Specifically, the newer Type 3 use of *never* retains vestiges of its older Type 2 use, as it was found to be most frequent in achievements and other temporally-bound predicates.

The analyses of these two morpho-syntactic variables therefore stress the importance of properties inherent to verbs, consistent with current Minimalist thinking whereby lexical items are the sole locus of variation within the grammar, i.e. the Borer-Chomsky Conjecture (Baker 2008: 353, based on Borer 1984 and Chomsky 1995). The impact of verb type on the

reduction of negative tags, on the other hand, is a very different type of effect. The semantics of the verb itself does not appear to have any direct consequence for the extent to which tags become phonetically-reduced, since phonetic reduction is a process that occurs post-Spell-Out (see Chomsky 1995). Indeed, as the results from Chapter 5 demonstrate, the relevant factors are the phonetic makeup of the auxiliaries and their frequencies, as tag auxiliaries with a larger number of syllables and higher frequency exhibit the highest rates of phonetically-reduced variants. These findings are consistent with usage-based accounts of phonetic reduction as a processing effect where articulatory movements reduce in magnitude and precision, becoming overlapped as items are pronounced more frequently (Bybee 2010: 37).

The extension of frequency effects to the storage of constructions, with arguments that high-frequency collocations become more entrenched and thus resistant to change (Bybee & Hopper 2001), is more controversial (see Erker & Guy 2012). This kind of account was adopted in previous research to explain the tendency for BE/HAVE to take *no*-negation and lexical verbs to take *not* (Tottie 1991a, b; Varela Pérez 2014). The argument is that BE and HAVE are high frequency compared to individual lexical verbs which renders them resistant to change, i.e. resistant to adopting the newest variant, *not*-negation. However, as demonstrated in Chapter 3 and summarised above, the same effects were captured in the syntax with appeal to standard assumptions concerning verb movement (Pollock 1989; Lasnik 2000). An explanation of this kind that appeals to the underlying syntactic structure and lexical properties of linguistic items appears preferable to one that is entirely frequency-based, as the former is consistent with other studies identifying the relevance of these verb movement properties in other English verbal phenomena, such as *do*-absence (Smith 2000). That is not to undermine the role of frequency in variation, as it may help to maintain the use of idiomatic fixed expressions with *no* (see Peters 2008; Peters & Funk 2009), for example. However, the nature of its effects have yet to be established. For example, while Bayley *et al.*'s (2013) study of subject personal pronoun expression in Spanish found independent effects of frequency on the phenomenon, it was designed to replicate Erker and Guy's (2012) study of the same variable which had found no independent frequency effects – only interactions. Positing frequency as the sole explanation of the verb type effect for *not*-negation, *no*-negation and negative concord therefore appears problematic since this would lead one to expect a gradient effect of frequency between individual lexical verbs which has not been satisfactorily demonstrated.

7.2.2. *Discourse-pragmatic function*

All three variables of negation have significant patterns of variation according to discourse-pragmatic function, but the exact nature of these effects differs depending on the variable and the specific set of functions involved. With the *not/no*/concord variable, the discourse status of propositions (discourse-old or discourse-new) has an orthogonal, cross-dialectally consistent effect in addition to verb type: *not*-negation is associated with discourse-old contexts while *no*-negation is favoured to introduce discourse-new information. Under Account 2, this is a reflection of *no*-negation constructions having negative marking within the post-verbal DP (contrary to *not*-negation and negative concord where the negative marking is in the pre-verbal NegP), a position which is associated with the introduction of new information more generally in English (Ward & Birner 2003; 2008). The quantitative analysis of *never* meanwhile demonstrates that its function is not just ‘emphatic’ as previous studies based on qualitative observations and/or author intuitions had indicated (Beal 1993: 198; Hickey 2004: 524; Beal & Corrigan 2005: 145; Buchstaller & Corrigan 2015: 80). Rather, the function of *never* differs according to its linguistic context. Specifically, its function varies between Type 2 “window of opportunity” achievement predicates where it is a standard variant and Type 3 contexts in which it is a non-standard variant. The former is strongly associated with the expression of counter-expectation (and *never* is used over *didn’t* at the highest rates in this context), while in the latter, the variant *never* is most likely to be employed to contradict a proposition that had been asserted in the previous discourse (a function that the Type 2 tokens, of either variant, did not have). The distribution suggests that the function of *never* became reanalysed from denoting counter-expectation to a stronger expression of denial, i.e. a contradiction, as it came to be used non-standardly, in a case of pragmatically-motivated change (H. Andersen 2001: 34).

In contrast, the discourse-pragmatic function of negative tag variants is much more variable across the three localities studied. Each community has its own set of form-function associations with respect to tags. That said, there is one common tendency for the supposed original function of tags, epistemic meaning (Tottie & Hoffmann 2009), to be associated with what is assumed to be the original phonetic form of tags, i.e. full variants (see G. Andersen 2001: 106; Hopper & Traugott 2003: 125). As change proceeds, however, different *sets* of functions become associated with phonetically-reduced tags across locales. Conduciveness

(conducive vs. non-conduciveness) was the relevant discourse-pragmatic factor in the distributional analysis of tag variants in Tyneside, compared to (inter)subjectivity in Salford (subjective vs. intersubjective). These differences reflect ‘the continual negotiation of meaning that speakers and hearers engage in’ during grammaticalisation (Hopper & Traugott 2003: 98) and evidence suggests that grammaticalisation within the Tyneside tag system is less advanced than in the other communities. The fact that invariant tags such as *yeah* have different sets of functions in world Englishes (Columbus 2010) may indicate that tags are especially prone to cross-dialectal variation in this particular respect.

The results therefore reveal a divide between the morpho-syntactic variables *not/no*/concord and *never/didn't* on the one hand, and the discourse-pragmatic variable of negative tags on the other. The variants in each of the former two variables share a core linguistic function and their discourse-pragmatic functions appear more grounded in the syntax and/or semantics of their contexts of use. The negative tag variable, on the other hand, has a form-based definition in that the variants are distinguished in terms of the extent of their phonetic reduction (full, reduced, coalesced). The tag *isn't it* is considered a precursor to the reduced form *int it* and the coalesced variant *innit*, but all share the same referential meaning. The negative tag variable, although discourse-pragmatic in nature, is the most similar to a phonetic variable, which do not necessarily pattern in the same way as variables on other levels of linguistic structure (Cheshire 1999).

7.3. Cross-dialectal variation and change in progress

Having discussed the relative importance of linguistic factors in my analysis of English negation, this section turns to the specific points of similarity and difference between the Glasgow, Tyneside and Salford dialects and assesses the evidence that these provide for linguistic change in progress. Table 7.1 compares the main findings for each linguistic variable across the three communities. The first row ranks the communities (G=Glasgow, T=Tyneside, S=Salford) according to their relative frequency of the innovative variant (i.e. *not*-negation, *never* and phonetically-reduced tags, respectively) based on the distributional

analyses and regression models which contained ‘locality’ as a fixed predictor.⁸² The remaining rows of the table list whether various factors had a consistent effect across the communities. In cells where an inconsistency is listed, details are given to specify the locales in which an effect was significant, as well as the direction of that effect (O=Older, Y=Younger; M=Male, F=Female).

	<i>Not/no/concord</i>	<i>Never/didn't</i>	Full/reduced/coalesced negative tags
Frequency of innovative variant	G & S > T	G > T > S (Type 2) G > T & S (Type 3)	G & S > T
Verb type/ Lexical aspect	Consistent	Consistent	Consistent
Function	Consistent	Consistent	Inconsistent G: Low Ns T: Conduciveness relevant S: Intersubjectivity relevant
Age	Inconsistent G: Significant, O > Y	Inconsistent Low Ns / no significance	Inconsistent T: Significant, Y > O
Sex	Inconsistent T: Significant, F > M	Inconsistent Low Ns / no significance	Consistent Significant in all locales: M > F (Tyneside strongest)

Table 7.1: Summary of the consistency of linguistic and external effects on each variable per locality

The frequency-based results as summarised in the first row of Table 7.1 point to Tyneside as the most conservative community in the use of these variables of negation, in that speakers retain older variants at higher frequencies than speakers in the other locales. Indeed, Tyneside is distinguished statistically from the other locales in the mixed-effects logistic regressions, with significantly higher rates of the older variants of *no*-negation and full negative tags. Along with Salford, Tyneside also has significantly higher rates of *didn't* as opposed to *never* in Type 3 contexts compared to Glasgow. Glasgow is in fact the most innovative community when all three variables are considered. Salford patterns similarly to Glasgow except for the

⁸² The only set of relevant tokens that was not subjected to mixed-effects logistic regression with ‘locality’ as a predictor was the Type 2 uses of *never* and *didn't*, since they were too infrequent to analyse that way (see Chapter 4, section 4.6.6).

use of *never*, where Glasgow's lead is consistent with previous associations between *never* and Scottish varieties of English (Miller & Brown 1982: 15; Miller 1993: 115, 2004: 51). The ranking of the communities in terms of the greatest use of innovative variants, when all variables are considered, is thus Glasgow > Salford > Tyneside.

The cross-dialectal variation therefore does not pattern in a North to South manner as found in previous studies of negative concord (Anderwald 2005), for example, nor does it separate the Scottish and English varieties from one another, or even draw similarities between the two most northern communities. What then could be the explanation for Tyneside's significantly different profile in terms of the use of conservative variants? As previously noted, the tendency for Tyneside speakers to retain older negative forms is consistent with the dialect's preservation of older variants of other variables (Corrigan *et al.* 2014: 117–19). This retention of historical features of language often occurs in isolated communities (Chambers & Trudgill 1998: 94; Smith 2004), which has been claimed to be true of Tyneside based on its relatively peripheral geographical position within the UK (Beal 2004b: 34; Burbano-Elizondo 2008: 143–4).

Another possible factor contributing to the variation between datasets, explored in Chapter 6 with respect to the negative tag variable, is that the nature of the Tyneside recordings (each with a different interviewer, unlike the recordings in the other datasets) may affect the overall frequency of variants. The analysis in Chapter 6 shows that interviewer effects do impact upon the frequency of full, reduced and coalesced negative tags, but that these are less significant than the linguistic and external effects already identified in Chapter 5: they do not supersede them or alter the constraint ranking. This confirms that the linguistic constraints are 'constant regardless of the extra-linguistic circumstances' – they represent the underlying system of the dialect and are a much more reliable point of comparison across datasets than frequency (Poplack & Tagliamonte 2001: 92). The overall distribution of variants per locale provides a general picture of the variation in a synchronic analysis, but it is only when these values are considered in conjunction with the linguistic and social trends that the true state of the variation is revealed. The relative frequency of variants 'can only be used with caution to infer differences among data sets which are already disparate in terms of collection procedures, interviewer technique, and a host of other factors' (Poplack & Tagliamonte 2001: 92).

The relatively low frequency of the variables in each of the regional samples, especially *not/no/concord* and *never/didn't*, meant that certain kinds of quantitative analysis could not be pursued. For example, often there were not enough tokens to run a separate regression model for each of the three communities to compare their constraint rankings. Instead, a single regression model had to be used for the three communities combined, with locality included as a factor to compare cross-dialectal differences in frequency. The infrequency of the variables also sometimes limited the strength of the conclusions that could be drawn from particular analyses. For example, chi-squared values could not be calculated in cross-tabulations with sparse or empty cells. Given the size of DECTE, perhaps a larger number of interviews could have been selected for the Tyneside sample. That said, doing so would likely require some relaxation of the carefully-justified criteria for selecting speakers (as set out in Chapter 2) such as expanding the age ranges, geographical area (e.g. the North East of England in general, rather than Tyneside) or the year of recording. Such decisions may not be desirable for comparison with the Glasgow and Salford samples, in which the maximum number of demographically-suitable speakers were selected from their respective corpora. As my study demonstrates, comparative corpus-based research must strike a balance between the size of the datasets and the comparability between them.

Regardless of the frequency of the variables overall, the effects of verb type/lexical aspect and discourse status were consistently significant and operated in the same way in each community, revealing common constraints in a linguistic system of English shared between the three regional dialects studied here. Although variation along linguistic dimensions is a precursor to change, variation can remain stable over time (see Labov 2001: 85–92). The fact that *not*-negation is favoured with lexical verbs and discourse-old propositions, while *no*-negation is favoured with functional verbs and discourse-new propositions, does not necessarily suggest linguistic change. However, given that *no*-negation is historically an older variant than *not*-negation and previous diachronic corpus-based investigations have found evidence that the latter is gradually replacing the former (Tottie 1991a, b; Varela Pérez 2014), it would appear that *not*-negation is taking hold amongst the lexical verbs the most.

In a similar vein, because the negative tag variable consists of variants representative of three successive (though overlapping) stages of phonetic reduction, they too are distinguished temporally. Comparing their relative frequency in different linguistic contexts and their use

for different discourse-pragmatic functions reveals consistent effect of verb type but remarkable differences in the form-function associations in each locale. Together, these findings indicate that while the localities are experiencing the same change, i.e. phonetic reduction of negative tags and expansion of pragmatic function indicative of grammaticalisation, its patterning in terms of function is community-specific. These findings emphasise that different processes associated with grammaticalisation, e.g. phonetic reduction and pragmatic expansion, do not necessarily operate simultaneously or at the same rate (Vincent & Börjars 2010: 296). While tag reduction correlates with non-conducive (as opposed to conducive) functions in Tyneside, it is intersubjectivity (vs. subjectivity) that is the relevant factor in Salford (though only the latter persists in the regression analysis). Since both subjective and intersubjective meanings arise through grammaticalisation, but the latter is indicative of more advanced stages of the process (Traugott 2010), the results suggest that Salford is more advanced in the change.

The *never/didn't* variable, in contrast, was not defined in terms of one variant being older or newer than the other. However, they were analysed between two different contexts that are temporally-distinguished in terms of the appearance of *never*: Type 2 “window of opportunity” achievement predicates in the preterite tense where *never* is a standard variant, versus its subsequent development into Type 3 predicates of various types in the preterite tense where *never* is non-standard. These two different ways of incorporating the dimension of time into my synchronic analysis, to reflect on how variables are undergoing change, are illustrated in Figure 7.1.

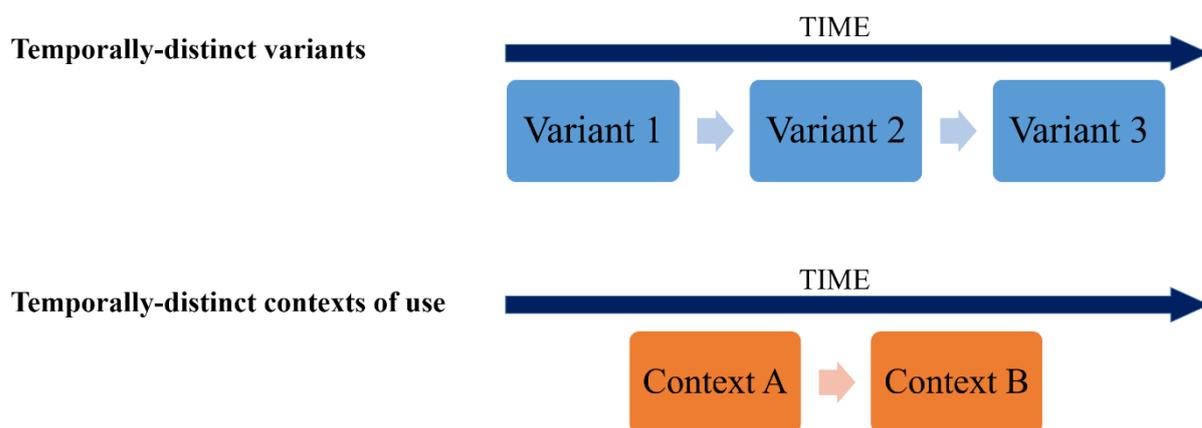


Figure 7.1: Representation of how linguistic change can be analysed through the identification of temporally-distinct variants or contexts of use

We see a further distinction between the morpho-syntactic variables (*not/no*, *never/didn't*) and the discourse-pragmatic variable (negative tags) with respect to how susceptible they are to patterning along social dimensions. This is partly the result of the morpho-syntactic variables (*not/no/concord* and *never/didn't*) being relatively infrequent in the corpora, which becomes problematic when it is necessary to stratify the sample according to both locality and binary social factors (age and sex). The temporal development of negation as described above is surprisingly not always manifested in a clear distinction in the distribution of variants between younger and older speakers in this thesis. Only two age-based distinctions are significant: the higher rates of *not*-negation amongst older speakers in Glasgow and the higher rates of phonetically-reduced negative tags amongst young speakers in Tyneside. The first finding does not support the proposed trajectory of change from *not*-negation to *no*-negation, as rates of *no*-negation are relatively consistent between the two age groups. Rather, the difference appears to be due to older speakers using more *not*-negation and younger speakers using more negative concord (again lending support to Account 2). The second significant age-based finding is more suggestive of diachronic change as younger speakers are expected to lead in the use of innovative variants in such circumstances (see Labov 2001: 76).

Significant sex-based effects are found in the use of *not/no/concord* in Tyneside, with men favouring *no* and women favouring *not*. Given that *no*-negation is the older of the two variants, this pattern is consistent with the observation that men are often more conservative

in their language use than women (Labov 2001: 321) and also reflects the idea that Tyneside may be lagging behind the other communities in the change since it has the lowest overall frequency for this feature. Furthermore, Tyneside displays the strongest social stratification of any community with respect to the negative tag variable: male speakers and younger speakers are both associated with the greatest use of phonetically-reduced tag variants. Taken alongside the overall low rate of tag reduction in Tyneside and the significance of conduciveness as opposed to intersubjectivity, the result reinforces the idea that Tyneside is less advanced than the other communities in terms of grammaticalisation in the tag system.

7.4. Theoretical implications: Bridging the gap between variationist sociolinguistics and formal linguistic theory

This thesis argued in favour of integrating formal linguistic theory into a quantitative, variationist sociolinguistic analysis and demonstrated that such an approach can provide more comprehensive, theoretically-grounded insights into variation and change. This section reviews how this has been achieved and discusses the implications for the theoretical approach to linguistic variation and change. Since each linguistic variable contributes differently to this discussion, the implications from each analysis are reviewed in turn.

7.4.1. Not-/no-negation and negative concord

The distribution of NPIs in relation to negation is one of the most debated, puzzling issues of syntactic theory (see, e.g., Krifka 1991; Progovac 1994; van der Wouden 1997; Zeijlstra 2004; de Swart 2010; Hoeksema 2010). Chapter 3 therefore set out to integrate formal linguistic theory into the study from the outset, starting with the definition of the linguistic variable. In defining the variable, a useful starting point is how researchers have considered the variable previously. However, surveying the sociolinguistic literature revealed bias towards Standard English in this research area, which led researchers analysing *not*-negation and *no*-negation previously to exclude the non-standard, stigmatised negative concord (Tottie 1991a, b; Varela Pérez 2014). While this is unproblematic for an analysis of Standard English, Labov's (1972a) observations from AAVE indicated that negative concord ought to be deemed a variant of the same variable as *not*-negation and *no*-negation, as proposed in Childs *et al.* (2015) and this thesis.

It was also necessary to depart from previous studies with respect to circumscribing the variable context. Previous studies of *not*-negation and *no*-negation included *a/an* and zero articles as part of the variable context alongside *any*-items (Tottie 1991a, b; Varela Pérez 2014). This decision may have arisen due to their exclusion of negative concord from the variable context, since negative concord rarely occurs with such items (Labov 1972a: 806; Cheshire 1982: 66; Smith 2001: 131). However, even in the rare cases of negative concord with such items, *any*- is said to be inserted prior to concord applying (Labov 1972a). Unlike the *any*- indefinites, the indefinite articles and zero articles are not NPIs, have a different level of semantic specificity (Lyons 1999: 37) and are not always semantically equivalent (see Chapter 3, section 3.6.1). To include such tokens would erroneously inflate the rates of *not*-negation in the sample. This once again warns against over-reliance on frequency as a comparable measure of variation between datasets, since we must consider how exactly the variable has been defined and its consequences for the results.

Given Zeijlstra's (2004) suggestion that English is essentially a negative concord language, it was feasible that *not*-negation, *no*-negation and negative concord are derived from the same structure. As discussed in section 7.2.1, Account 1 of the variation assumed such an analysis, in which *no*-negation and negative concord are both derived via Agree between a negative marker/operator and a post-verbal indefinite item. This is in line with observations that languages with preverbal negative markers have negative concord and that English *any*- items behave like *no* items do in negative concord languages (Zeijlstra 2004). Under the alternative proposal, Account 2, *no*-negation is structurally distinct from negative concord in that it consists of a DP-internal negative marker which moves to NegP (based on Kayne 1998; Svenonius 2002; Zeijlstra 2011). The quantitative variationist provided a means of testing these two different models to establish which could better account for the variation between *not*-negation, *no*-negation and negative concord in English. The results confirmed that Account 2, with appeal to the distinction between functional and lexical verbs in terms of their movement properties, was most strongly supported. These results contribute to the ongoing theoretical debate about the structure of negation with indefinites, indicating that English has two competing structures to generate semantically-equivalent variants (see also Tubau 2016), but that these are distinguished in terms of their functional specialisms. The analysis has therefore demonstrated that generating theoretically-informed hypotheses and testing these in spoken dialect data provides unique insights into the internal mechanisms of

the grammar. The distribution of variants according to the external variables that are typically of interest in variationist analysis meanwhile proved more difficult to interpret, emphasising the primary role of internal factors for this variable.

7.4.2. *Non-quantificational never and didn't*

Defining the non-quantificational *never* vs. *didn't* variable and their contexts of use was a challenging task but vital to the analysis, not least because there was relatively little prior work on the variable, with Cheshire (1982) the only exception. Her definition of the variable was maintained in this study since it captures the equivalence in meaning between the two variants as non-quantificational negators, while at the same time distinguishing this type of *never* from its use as a universal quantifier over time and various other meanings. Although Cheshire (1998) later advocates analysing *never* as a single linguistic item with multiple functions, such an approach would pose problems for a traditional quantitative variationist analysis since there is no common denominator: *never* as a universal quantifier over time varies with *not ever*, while non-quantificational *never* alternates with *didn't*. My approach was therefore to adopt Cheshire's (1982) original definition of the variable whilst separating two different variable contexts discussed in Lucas and Willis (2012): (i) Type 2 contexts, in which *never* (or *didn't*) refers to a "window of opportunity" in an achievement predicate with preterite tense, and (ii) Type 3 contexts, in which *never* (or *didn't*) maintains its non-quantificational meaning, but occurs with preterite tense predicates of various types and is not restricted to a "window of opportunity".

This conception of a single variable with two variable contexts captures the idea that the speaker has a choice between *never* and *didn't* to express non-quantificational negation in the preterite tense, but that their choice is subject to different semantic and syntactic effects in Type 2 and Type 3 contexts given their different linguistic characteristics as well as the fact that *never* is standard in the former but non-standard in the latter. The approach therefore builds upon prior analyses which have acknowledged both standard and non-standard uses of non-quantificational *never* but did not specify the linguistic context which gives rise to the non-standard sense (Cheshire 1985). Since *never* as a form can take many different meanings in different contexts (see Chapter 4), a decision tree was created for coding the data and deciding which uses of *never* ultimately had to be excluded from the analysis since they were

outside the variable context. The implementation of this decision tree served to improve precision, accuracy and replicability within the study, which was especially important given that this is the first analysis to distinguish between Type 2 and Type 3 uses of *never* and *didn't* in a quantitative analysis, but it is also intended to encourage comparable future studies (see also Wagner *et al.* 2015).

Having a binary variable with two separate contexts of use allowed me to test hypotheses that the distribution of *never* as a non-quantificational negator would be influenced by its origins as a universal quantifier over time. Furthermore, its use as a non-quantificational negator in its standard use in “window of opportunity” achievement predicates (Type 2) was expected to impact upon its distribution in a wider range of predicates in which it is non-standard (Type 3), as the item grammaticalises. In this way, I was able to demonstrate how observations from the formal linguistic literature on *never* based on native-speaker intuitions and both historical and modern-day corpus data (Lucas & Willis 2012) are confirmed in my contemporary corpora analysed synchronically. Analysing the variable across two contexts of use indeed provided insights that could not have been uncovered otherwise. Firstly, the results showed that non-standard uses of *never* (Type 3) are constrained by lexical aspect, being used most often in achievement predicates – the precise environment in which Type 2 *never* inherently occurs. *Never* was also more likely to be used in bounded dynamic events rather than unbounded events or statives, reflecting the nature of non-quantificational *never* in having no inherent temporality, as opposed to its use as a universal quantifier. Secondly, the function of *never* in Type 2 predicates and Type 3 predicates was different. Type 2 predicates tended to express counter-expectation, regardless of variant, but *never* was especially likely in such contexts. In Type 3 constructions, *never* was most frequent in contradictions. The results point to a reanalysis of the function of *never* from counter-expectation to contradiction, with the non-standard uses of *never* becoming used in the most marked, salient environments in a case of pragmatically-motivated change (H. Andersen 2001).

7.4.3. Negative tags

Formal syntactic theory was not central to my analysis of negative tag realisations, since the investigation concerned the extent to which the tag was phonetically-reduced, a process which operates outside the internal grammar. Nevertheless, previous observations about the

placement of tags and their relationship to the anchor clause in terms of polarity and agreement were important in defining where they occur: clause-final in the right periphery, with reversed polarity from the anchor clause and matching the verb in the anchor clause in terms of tense and agreement (Arbini 1969: 207; Quirk *et al.* 1985: 813). In certain varieties of English, tags have potential to appear in non-final positions in the clause (Pichler 2016) and with non-paradigmaticity, i.e. non-agreement between the tag and the verb in the anchor clause (G. Andersen 2001; Pichler 2013, 2016). In my data, however, all tags were clause-final and rates of non-paradigmaticity were low (see Chapter 5, section 5.5.3). Had such phenomena been more frequent, as they are in certain varieties of London English (G. Andersen 2001; Pichler 2016), formal linguistic analysis may have been useful to account for their distribution, with appeal to the underlying structure and agreement relations (or lack thereof).

The data in my study was most appropriately studied using quantitative variationist methods to examine how the variation patterns according to discourse-pragmatic function and social factors that had been identified as key predictors of the variation in previous work. Undertaking such analysis uncovered diversity in these patterns between the communities, emphasising that grammaticalisation does not proceed in a uniform manner in every community but that the patterns can reveal the current state of change in each (Tagliamonte 2013a: 209). The fact that the factors relevant to the variable's patterning were more "external" than for *not/no/concord* and *never/didn't* (i.e. the frequency of the verb types; discourse-pragmatic function as defined in terms of speaker attitudes and orientation to the hearer; social factors of age, sex and locality) reflects the definition of its variants in terms of phonetic reduction, which is also outside our internal grammar. Furthermore, as Chapter 6 showed, negative tags are also sensitive to situational effects relating to the interviewer's variety of English and their relationship with the speakers, with closer relationships and more similar dialects promoting the use of reduced/coalesced variants.

7.5. Methodological implications: Interviewer effects on language variation

The Observer's Paradox is a frequently-cited issue within sociolinguistic theory as it captures the problem that researchers aim to observe the way people speak in their most natural speech style, 'yet we can only obtain these data by systematic observation' (Labov 1972d: 209). It is

often acknowledged as something which must be overcome as much as possible within the sociolinguistic interview to encourage the most ‘vernacular’ speech (Milroy & Gordon 2003: 49). However, the effect of the interview situation on the patterns of variation observed is rarely noted and even more rarely studied. My research set out to investigate the impact of the interviewer on speakers’ negative tag realisations in the Tyneside data, since each interview was conducted by a different student interviewer. The interviewers were all students at Newcastle University who came from various locations in the UK and abroad and thus speak different varieties of L1 and L2 English.

Hypothesis 1 was that interviewees who had a closer relationship with their interviewer would use phonetically-reduced tags the most, because speakers use more casual speech styles in conversation with people they are familiar with by comparison to less familiar speakers and non-standard variants appear more frequently in a more casual style (Douglas-Cowie 1978; Coupland 1980; Russell 1982; Thelander 1982; Rickford & McNair-Knox 1994). Hypothesis 2 was that interviewees whose dialect of English was more similar to the interviewer’s would be more likely to use phonetically-reduced tag variants, because this factor promotes the use of non-standard variants (Douglas-Cowie 1978). Furthermore, with non-native speakers, interviewers may use ‘foreigner-directed speech’ (FDS), the register people use towards ‘outsiders who are felt to have a very limited command of the language or no knowledge of it at all’ (Ferguson 1971: 143). Because less-reduced vowels, more fully-released consonants and fewer contractions are characteristic of both FDS (Hatch 1983: 183–4; Uther *et al.* 2007; Kangatharan *et al.* 2012) and more formal speech styles (Giegerich 1992: 289; Laver 1994: 68; Kirchner 2001: 26; Hughes *et al.* 2013: 8), the phonetic realisation of tags was an ideal variable to analyse interview effects on discourse-pragmatic variation. The results in Chapter 6 are consistent with both hypotheses: phonetically-reduced negative tag variants are used at the highest frequencies amongst speakers interviewed by a friend with a North East English dialect (i.e. the same as theirs), which decrease according to these two factors down to the categorical use of full variants amongst speakers interviewed by an acquaintance-friend/stranger speaking a non-native variety of English.

The effect was significant when tested in a regression model with the other factors tested in the original negative tag models in Chapter 5. However, the inclusion of the interviewer effects into the model did not change the constraint hierarchy or significance levels of the

other factors: the interviewer effects were significant, but less significant than the others. The linguistic and social factors are therefore primary in this analysis, but interviewer effects do exist and can help explain more of the variation. There was some indication that the social patterning may reduce in strength, since the use of phonetically-reduced variants amongst leaders in their use (i.e. male speakers) was lower when interviewed by non-familiar, non-native speakers. There were also some indications that the function of tags may differ according to the interview situation, with people interviewed by non-native speakers using more intersubjective tags than those who were interviewed by native English speakers (potentially reflecting greater politeness) and non-conductive tags becoming more frequently used as the relationship becomes closer (potentially reflecting the increased likelihood of expressing attitudes when there is less face to lose).

Speakers can therefore style-shift their negative tag realisations. When considered alongside indications that they are stigmatised (see “*innit, int.*”, OED Online), this would suggest that phonetically-reduced tags are sociolinguistic markers rather than indicators (Labov 2001: 196). A question for further research is whether all variables consisting of variants that differ in the extent to which they are phonetically-reduced are also subject to style-shifting. Since phonetic reduction processes are distinct from the derivational processes that result in the fixing of discourse-pragmatic or morpho-syntactic units, one might predict that the reduction process is insensitive to these distinctions. However, this is not to say that reduction cannot lead to morpho-syntactic change, as Jespersen’s Cycle (Jespersen 1917) demonstrates.

The results of Chapter 6 emphasise that for broad analyses of dialect differences, internal effects are expected to remain constant even if interviewers and their techniques are different. That said, functional and social effects seem likely to shift, since external variables can interact with one another in complicated ways that are not always possible to disentangle. My results suggest that the best way to overcome this issue is to control the potential interviewer effects as much as possible, ideally having one interviewer who is familiar to the target population and speaks the same dialect as them (see Tagliamonte 2006 for similar recommendations). Of course, this is not a guarantee of a successful interview as family members may find the situation unnatural (Schilling 2013) and in a large-scale study it is not feasible for the interviewer to only record people they know. Nevertheless, recruiting one or a small number of interviewers who share the dialect as their participants is sensible since my

results suggest that they are best placed to elicit the most natural speech data from their participants, other situational factors being consistent. When it comes to using pre-existing corpora, however, the researcher is at the mercy of the original compilers and the information they choose to provide. My results emphasise the importance of researcher access to detailed metadata on the speakers and their interviewers, to allow for the systematic investigation of such factors in their analyses (see also Pichler 2010).

7.6. Avenues for further research

The research presented in this thesis has opened up a number of potential avenues for future research. Firstly, in terms of broadening the analysis to other English dialects, it would be worthwhile to investigate the three linguistic variables of negation examined here in a variety more linguistically distinct from those spoken in Glasgow, Tyneside and Salford. AAVE, for example, has distinctive syntactic properties (particularly in the realm of negation) and would constitute an interesting point of comparison with the more linguistically conservative varieties studied here. Such an investigation would test whether the properties of English in Glasgow, Tyneside and Salford identified in this thesis pertain only to these Northern UK varieties or whether they are properties of English more widely. Secondly, examining the distribution of the variables studied here in longitudinal corpora would provide a diachronic perspective on the change in addition to the synchronic, apparent-time perspective granted in this thesis, allowing for comparison of whether the rates of change differ between morpho-syntactic and discourse-pragmatic variables. Thirdly, further research is warranted to investigate whether other variables comprising more phonetically-full and more phonetically-reduced variants are subject to style-shift and whether this correlates specifically with speech rate.

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Appendix A: Glasgow sample of recordings

Recording Year	Transcript	Audio Length	Speakers	Age	Sex
1997	gsp_int6	34:58	NKYM1 NKYM2	13-14	M
	gsp_int9	25:11	NKYM3 NKYM4	13-14	M
	gsp_int7	41:12	NKYF1 NKYF2	13-14	F
	gsp_int8	39:52	NKYF3 NKYF4	13-14	F
	gsp_int13	47:59	NKOF1 NKOF2	40-60	F
	gsp_int14	49:28	NKOF3 NKOF4	40-60	F
	gsp_int15	46:24	NKOF4 Excluded	40-60	F
	gsp_int17	53:01	NKOM1 NKOM2	40-60	M
	gsp_int18	36:54	NKOM3 NKOM4	40-60	M
2003	G1_M01_M02	37:29	G1_M01 G1_M02	14-15	M
	G1_M03_M04	42:24	G1_M03 G1_M04	14-15	M
	3M6A_3M5A	42:15	3M6 3M5	14-15	M
	3F1A_3F6A	33:25	3F1 3F6	14-15	F
	3F2A_3F5A	34:24	3F2 3F5	14-15	F
	3F3A_3F4A	34:08	3F3 3F4	14-15	F
	G2_M01_M02	28:57	G2_M01 G2_M02	40-60	M
	G2_M03_M04	35:56	G2_M03 G2_M04	40-60	M
	4M5A_4M6A	42:43	4M5 4M6	40-60	M
	4F1R_4F2L	34:28	4F1 4F2	40-60	F
	4F3AR_4F4AL	32:20	4F3 4F4	40-60	F
	4F5R_4F6L	28:30	4F5 4F6	40-60	F

Appendix B: Tyneside sample of recordings

Recording Year	Transcript	Audio Length	Speakers	Age	Sex
2007	2007_SEL2091_003	80:17	LR/195	18	F
			JS/221	18	F
	2007_SEL2091_004	83:40	BB/929	18	F
			MP/158	19	F
	2007_SEL2091_009	65:16	PM/85	20	M
			SM/84	24	M
	2007_SEL2091_026	35:22	AL/912	25	M
			RM/512	24	M
	2007_SEL2091_031	66:26	RB/16	20	M
			GQ/21	21	M
2007_SEL2091_049	64:08	JS/169	25	M	
		PS/243	23	M	
2007_SEL8163_001	57:20	MM/123	50	F	
		MM/456	20	F	
2007_SEL8163_005	53:10	JR/456	68	M	
		DK/131	76	M	
2008	2008_SEL2091_012	44:21	AA/613	23	M
			BB/329	19	M
	2008_SEL2091_019	58:04	CW/123	78	F
			MS/321	77	F
2009	2008_SEL3009_004	38:41	IC	49	F
			JK	49	F
	2009_SEL2091_017	62:52	GB/127	61	M
			JE/988	57	M
	2009_SEL2091_038	54:46	P/416	21	M
			B/145	21	M
2010	2010_SEL2091_007	60:07	SM/135	19	F
			CB/848	19	F
	2010_SEL2091_014	58:10	AS/149	19	F
			SB/151	19	F
	2010_SEL2091_017	66:51	BB/530	43	M
			SG/121	53	M
2011	2011_SEL2091_003	61:47	MD/59	52	F
			EL/52	52	F

Appendix C: Salford sample of recordings

Transcript	Audio Length	Speakers	Age	Sex
Joshua & David	39:40	Joshua	23	M
		David	21	M
Sam & Bob	46:12	Sam	23	M
		Bob	22	M
Emily & Ethan	81:14	Emily	21	F
		Ethan	27	M
Emily & Sally	42:52	Emily	22	F
		Sally	60	F
Sarah & Abby	32:07	Sarah	21	F
		Abby	21	F
Sasha & Charlotte	38:43	Sasha	21	F
		Charlotte	48	F
Adam & Jack	31:01	Adam	49	M
		Jack	38	M
Barry & Derek	34:05	Barry	48	M
		Derek	58	M
Bill & Pete	31:30	Bill	54	M
		Pete	47	M
Paul & James	53:19	Paul	59	M
		James	22	M
Perry & Ted	34:41	Perry	53	M
		Ted	56	M
Amanda & Rebecca	30:18	Amanda	41	F
		Rebecca	21	F
Catherine & Lorraine	48:42	Catherine	54	F
		Lorraine	63	F
Deborah & Ellis	35:59	Deborah	43	F
		Ellis	17	F
Gail & Mary	59:33	Gail	45	F
		Mary	46	F
Helen & Kathleen	42:36	Helen	50	F
		Kathleen	54	F
Janet & Moira	33:03	Janet	44	F
		Moira	57	F

Appendix D: Distribution of HASN'T tag variants with each pronoun type, per locality

	hasn't	hant/hint/ant	hannit	hanne	Total N
	N	N	N	N	
Glasgow					
he	0	5		0	5
she	0	1			1
Tyneside					
it	1	0	0		1
he	1	0		2	3
she	1	0			1
Salford					
it	0	2	7		9
he	2	6		1	9
she	0	2			2

Appendix E: Distribution of DOESN'T tag variants with each pronoun type, per locality

	doesn't		dint		dunt		dunnit		dunne		Total N
	%	N	%	N	%	N	%	N	%	N	
Glasgow											
it	-	0	-	1	-	4	-	2			7
Tyneside											
it	-	5	-	0	-	0	-	3			8
he	-	1	-	0	-	0			-	0	1
she	-	2	-	0	-	0					2
Salford											
it	7.4%	2	3.7%	1	22.2%	6	66.7%	18			27
he	0%	0	7.7%	1	61.5%	8			30.8%	4	13
she	-	0	-	0	-	2					2

Appendix F: Distribution of polysyllabic modal negative tag variants, per locality

Standard English tag verb per locality	Auxiliary realisation	Number of tokens
Glasgow		
COULDN'T	<i>couldn't</i>	1
	<i>cunt</i>	1
WOULDN'T	<i>wunt</i>	3
	<i>wunnit</i>	2
SHOULDN'T	<i>shouldn't</i>	1
Tyneside		
WOULDN'T	<i>wouldn't</i>	3
	<i>wunnit</i>	1
SHOULDN'T	<i>shouldn't</i>	1
Salford		
COULDN'T	<i>couldn't</i>	1
	<i>cunt</i>	3
	<i>cunnit</i>	2
WOULDN'T	<i>wouldn't</i>	1
	<i>wunt</i>	10
	<i>wunnit</i>	4
SHOULDN'T	<i>shouldn't</i>	2
	<i>shunt</i>	3