

*UM, ABOUT THAT, UH, VARIABLE*

by

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# Abstract

*Um*, about that, *uh*, variable

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Recent variationist work on *uh* and *um* (hereafter UHUM, e.g. (1)) has revealed a striking change in progress which has escaped the notice of laypeople and, until recently, linguists. Fruehwald (2016) and Wieling et al. (2016) have found, using both apparent- and real-time data, that *um* is rising over *uh*.

- (1) a. **Um**, you might wanna ease up on the ol liver there (M/1995)  
b. **uhh** how would i know LOOOL (F/1995)

For example, the oldest (born c. 1900–1910) and youngest (born c. 1990–2000) speakers in the Philadelphia Neighborhood Corpus (Labov & Rosenfelder, 2011) have *um* rates below 10% and exceeding 70%, respectively (Fruehwald, 2016: 43). While Fruehwald (2016: 45) and Wieling et al. (2016: 228) suggest that the rise of *um* may be due to the emergence of a new discourse or pragmatic function for *um*, neither study identifies one—in many cases (UHM) tokens appear to be nonlexical planners which are supposedly not consciously produced (Tottie, 2017: 21).

However, Tottie (2017) has recently shown that in journalistic writing, (UHM) is a *bona fide* pragmatic marker whose function depends on its position in the sentence: initial position encodes speaker attitude/stance (as in the negative-evaluative stance shown in (2a)), while medial position offers commentary on the speaker’s word choice (e.g., the use of a euphemism as in (2b)).

- (2) From Tottie (2017: 5):
- a. **Um**, senator, the market already views those firms as having implicit government backing (*New York Times*, 2010)
  - b. Obama is more, **um**, seasoned (*Washington Post*, 2005)

While Tottie (2017) does not find that either function favours *um* or *uh* in particular, position provides a means of operationalizing functional differentiation in other registers—in the present study, I do so with instant messaging (IM).

IM is a hybrid register: it incorporates aspects of both spoken and written language (Tagliamonte, 2016; Tagliamonte & Denis, 2008), being synchronous and interactive but conducted in a written medium. This makes it an ideal medium in which to investigate the pragmatic function of (UHM), as the apparently unconscious or physiologically-motivated uses of (UHM) observed in speech are all but absent in IM, assuming IM users do not unconsciously type (UHM) when planning messages. Thus IM isolates the intentional, pragmatic-marker uses of (UHM) and enables testing of functional differentiation.

In this paper, I analyze 1513 tokens of (UHM) from three Toronto IM corpora, two collected by Tagliamonte and Denis (2008) in 2004–2006 (birthdates 1985–1990) and one that I collected in 2017 from a community of practice (CoP) in which I participate (birthdates 1993–1997). Qualitatively analyses show that *uh* and *um* have different connotations (and therefore different pragmatic functions) in the most recent CoP: *um* is polite and used for face-threat mitigation (3a), *uh* is rude and used for disalignment/disagreement, face challenges and mockery (3b). Quantitatively, mixed-effects regression in R (Bates, Mächler, Bolker, & Walker, 2015; R Core Team, 2018) reveals two patterns differentiating the two variants: *um* is more common in initial position ( $p = .017$ ) and in responses to questions ( $p = .007$ ). I also show that contrary to the attested pattern in speech, *uh* is becoming more common over time in IM ( $p = .021$ ). I attribute these patterns to specialization (Kroch, 1994): *um*'s rise over the last century has put it in competition with *uh* in a discourse-pragmatic doublet, leading the two

forms to diverge and develop different meanings.

(3) a. *Context: The interlocutor left the rice cooker on the previous night.*

**Uhm**, the rice cooker is super hot cuz it was still in keep warm mode. [...] It's okay, let's just be careful next time (F/1993)

b. *Context: Token occurs after the interlocutor says "how did i treat her like a thing"*

**uh** hello, you've been trying to change her mind, trick her into liking you back again (F/1995)

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# Chapter 1

## Introduction

Uhm is a word often used by programmers when they respond to a question that has no context, or is way too stupid to answer. Also used as a response to something inaccurate.

Also used with ‘uh’.

---

*Emil*, Urban Dictionary

June 22, 2004

Recent variationist work on the “filled pauses” *UM*, as in (1a)<sup>1</sup>, and *UH*<sup>2</sup>, as in (1b), has revealed a striking change in progress which has escaped the notice of laypeople and, until recently, linguists.

- (1) a. **Um**, you might wanna ease up on the ol liver there  
b. **uhh** how would i know LOOOL

---

<sup>1</sup>All examples and extracts in this paper are rendered exactly as they were originally typed, with the exception of redactions and truncations for confidentiality and clarity, which are indicated using [square brackets]. In numbered examples, breaks between individual messages from the same speaker are indicated using double slashes *<//>*.

<sup>2</sup>*UH* and *UM* are also sometimes spelled *<er>* and *<erm>* respectively, usually by speakers of non-rhotic varieties of English.

Treating UH and UM as a sociolinguistic variable (hereafter referred to as UHUM), Fruehwald (2016) and Wieling et al. (2016) have found, using both apparent- and real-time data, that UM is becoming more frequent and UH is declining. For example, the oldest speakers (born c. 1900–1910) in the Philadelphia Neighborhood Corpus (PNC) (Labov & Rosenfelder, 2011) have UM rates below 10%, while the youngest speakers (born c. 1990–2000) have UM rates exceeding 70%. One possible explanation for this change, as suggested by both Fruehwald (2016) and Wieling et al. (2016), is that a new discourse function for UM has entered the system, leading it to become more frequent. However, neither study pinpoints what exactly this new discourse function could be. This is unsurprising, because in many cases, UH and UM appear to be nonlexical “planners” which are not consciously produced by speakers. For example, Tottie (2016) has found that UHUM is more frequent in contexts which require more planning—narratives and long turns (p. 103), answers to questions (p. 106) and in word-search (p. 107). In these contexts, it is not clear that UHUM serves any function other than planning.

However, Tottie (2017) has recently demonstrated that UHUM is a *bona fide*, intentional pragmatic marker in a different medium: writing. In writing, UHUM marks speaker attitude and stance and offers commentary on the speaker’s word choice. For comparison with speech, though, Tottie’s (2017) study is limited, because it looks only at writing, a noninteractive, monologic medium. Yet there are written media which *are* interactive and dialogic—for instance, instant messaging (IM). IM has been described as a hybrid (Crystal, 2001; Tagliamonte, 2016; Tagliamonte & Denis, 2008): it contains elements of speech (interactivity, dialogicity, synchrony) in a written medium. It is thus the ideal medium for a study of the discourse-pragmatic function of UHUM which goes beyond planning.

In the present study, I conduct an exhaustive quantitative analysis of 1513 tokens of UHUM in IM, drawn from three Toronto corpora of teenagers and twenty-somethings: two collected by Tagliamonte and Denis (2008) in 2004–2006, and one that I collected in 2017. I aim to shed light on the key questions surrounding UHUM and its use in IM, including whether the change in progress observed in speech is also present in IM, whether either variant has

developed a new discourse function, and what exactly UHUM does and means.

This paper is structured as follows. In Chapter 2, I provide further background on UHUM in IM—its history in the literature, the change in progress underway and a primer on computer-mediated communication. In Chapter 3, I give an overview of the data to be analyzed, a description of the variationist methodology, a circumscription of the variable context, an outline of the coding schema and an explanation of the statistical and analytical tools employed. In Chapter 4, I undertake a quantitative analysis of UHUM overall—the factors influencing its frequency and the contexts in which it is most commonly used. In Chapter 5, I conduct a quantitative analysis of the variation between UH and UM—the internal and external predictors favouring each variant and the patterns in real and apparent time. In Chapter 6, I present and analyze metalinguistic texts as well as longer extracts from the most recent corpus in order to identify the function of UHUM and its two variants and the social meaning of each. In Chapter 7, I tie together the results of the three preceding chapters and discuss the implications of the findings overall. Chapter 8 concludes the paper.



# Chapter 2

## Situating the variable

### 2.1 The nature of UHUM

What exactly UHUM is, and what its function is, are not trivial questions. The literature has long been divided on two main points: whether UHUM is intentional or an unconscious signal, and whether it is a lexical word.

Maclay and Osgood's (1959) seminal paper on English hesitation phenomena characterizes UHUM as a device for floor management: speakers insert UHUM to indicate that while they may be hesitating, they do not want to be interrupted. They justify this claim by their finding that UHUM occurs more frequently between syntactic units, where decisions about what to say and how to say it are presumably being made (Maclay & Osgood, 1959: 41–42). In other words, UHUM is used to manage the floor during speech disfluency.

Levelt (1983, 1989) takes this argument somewhat farther, characterizing UHUM as little more than a *symptom*—an involuntary noise pronounced automatically and unconsciously as a result of a problem with speech production. According to Levelt (1989: 484), “*er* apparently signals that at the moment when trouble is detected, the source of the trouble is still actual or quite recent. But otherwise, *er* doesn't seem to mean anything. It is a symptom, not a sign.” I will refer to this hypothesis as the *nonword/symptom* view.

While the nonword/symptom view remains common, it is somewhat problematic, as Clark and Fox Tree (2002: 75) point out: speakers can control whether or not they produce UHUM, indicating that they are not completely involuntary, and speakers have the choice of using UH, UM or another vocalization, indicating that the choice must be conditioned in some way. Accordingly, they argue based on correlational data in English speech corpora that UHUM is indeed a *bona fide* word (specifically, an interjection), used to signify a delay. UM is used to signal a long delay, and UH is used to signal a short one. I will refer to this hypothesis as the *word/signal view*.

Today, both the degree to which UHUM is intentional and its status as a word remain unsettled. Both views are extant in the literature. On the nonword/symptom side, for example, Corley and Stewart (2008) have argued that while there is some degree of intentionality in the use of UHUM, it does not provide the same kind of information as typical words, behaving more like facial gestures or prosody changes. On the word/signal side, Tottie (2016, 2017) has recently made important contributions to our understanding of what UHUM is and how it functions.

Tottie has advanced the view that UHUM is a *pragmatic marker*: items which do not contribute to the propositional content of an utterance but have interpersonal or textual meaning (Archer, Wichmann, & Aijmer, 2012: 74). For instance, Tottie (2016) argues that in speech, UHUM is used as a *planner*, primarily used in contexts that require more speaker planning, such as narratives and other long turns. In this sense, it is similar to words like *well*, *you-know*, *I-mean* and *like*, pragmatic markers which Tottie (2018) also holds are used for planning.

Tottie (2017) has also examined UHUM's use in written English, and distinguishes its function from writing from its function in speech. She argues that in writing, UH and UM are *stance adverbs* (following Biber, Johansson, Leech, Conrad, & Finegan, 1999: §10.3), which can be used in initial position to indicate speaker attitude toward the topic of the utterance (*attitude adverbs*), and in medial position to make self-aware comments about word choice, feigned lexical access, &c. (*style adverbs*). Tottie (2017) argues that these uses derive from the

use of UHUM in speech: situations which require a lot of planning, like touchy or sensitive situations, are associated with UHUM in the spoken language, and this use translates into the written domain as an indicator of speaker stance about such situations. Such stance-marking uses are also identified by Rose (2011) in blogs and by Wieling et al. (2016: 207) on Twitter.

## 2.2 Change in progress

Recent variationist work by Wieling et al. (2016) has identified social patterns in the use of UH vs. UM: across six Germanic languages (English, Dutch, German, Norwegian, Danish, and Faroese), female speakers and younger speakers are more likely to use the nasal variant than the non-nasal variant<sup>1</sup>. In two subcorpora, the Fisher corpus of English and the Dutch corpus, higher education also favoured UM. Data from Dutch and English Twitter followed the same patterns: speakers who identified their gender as female in their profiles were more likely to use UM than those who identified their gender as male, and speakers who identified their age showed a similar age pattern. This is interpreted by Wieling et al. (2016) as a change in progress, an interpretation which is supported by Denis and Gadanidis (2018): while Wieling et al. (2016) find rates of UM as high as 64% in modern English data, in Derek Denis's *Farm Work and Farm Life* corpus of Canadian English as spoken by farmers born in the late 1800s and early 1900s, the rate of UM is only 9–16% (Denis & Gadanidis, 2018).

While the pattern is clear, it's not clear why the particular variant UM is rising over UH—the actuation problem remains unsolved. One possible explanation for the precipitous rise of UM is that, as suggested by Fruehwald (2016) and Wieling et al. (2016), a new discourse-pragmatic function may have entered the language for which UM is used, but not UH. However, neither Fruehwald (2016) nor Wieling et al. (2016) are able to find evidence supporting this hypothesis. My goal in this forum paper is to shed some light on this problem using data from instant messaging, which has a number of characteristics, described below, that make it ideal for examining the pragmatic function of UHUM.

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<sup>1</sup>A similar gender pattern has also been found in Mandarin; see Yuan, Xu, Lai, and Liberman (2016).

## 2.3 UHUM and computer-mediated communication

Androutsopoulos (2006) notes that much work on computer-mediated communication (CMC) has emphasized its differences from speech. Particular foci of this research have included the degree to which CMC is a hybrid of spoken and written language (Crystal, 2001; Tagliamonte, 2016; Tagliamonte & Denis, 2008), the use of emoticons/acronyms, the effects of synchrony vs. asynchrony, &c. (e.g., Crystal, 2001). Medium-specific differences (e.g., differences between speech, traditional writing, email, SMS, IM, and so on) have been of particular interest (e.g., Crystal, 2001; Tagliamonte, 2016). In this work, however, rather than investigating medium-specific differences *per se*, I aim to *exploit* these differences so as to get another view on the variable of interest.

IM's well-documented status as a hybrid register (Tagliamonte, 2016; Tagliamonte & Denis, 2008) makes it ideal for studying UHUM: its speechlikeness gives us a view of how the variable is used conversationally and interactively, and its written nature filters out its use as a planner (Tottie, 2016), enabling me to undertake a more straightforward analysis of its discourse function and social meaning. In the next chapter, I describe the methodology I employ in order to conduct this analysis.

# Chapter 3

## Data and methods

### 3.1 Corpora

The data for this study come from three corpora: TEEN and TTT, from the Tagliamonte Internet Archive (Tagliamonte, 2003–2006, 2007–2010) and FBC, a corpus that I collected myself for this project.

#### 3.1.1 The TEEN and TTT corpora

TEEN consists of IMs collected by Toronto high-school students as part of a mentorship project organized by Sali Tagliamonte in Toronto schools from 2004–2006, with years of birth ranging from 1987–1990. TTT consists of IMs collected by Derek Denis from himself and other Toronto speakers in his social networks, mostly university-age students, also from 2004–2006, with years of birth ranging from 1985–1987. For a detailed overview of both TEEN and TTT, see Tagliamonte and Denis (2008).

### 3.1.2 The FBC corpus

Along with the data from Tagliamonte and Denis (2008), this study also analyzes FBC<sup>1</sup>, a corpus that I collected from my own social networks of IM conversations that took place from 2014–2017 (one decade after the data from Tagliamonte and Denis, 2008). Speaker birthdates range from 1993–1997; all were undergraduate university students at the time the conversations took place. While the data was produced between 2014 and August 2017, the research project did not begin until September 2017, meaning that this data circumvents the Observer’s Paradox (Labov, 1972): not only was there no researcher involved for speakers to linguistically orient themselves to, it was not possible for any of them to know that anyone other than the intended recipients would ever read or analyze their data (see also Tagliamonte & Denis, 2008)<sup>2</sup>.

The participants in this corpus are all members of at least one of two university clubs which practice Japanese martial arts<sup>3</sup>. Thus, this corpus constitutes a community of practice—that is, the speakers are mutually engaged in two jointly-negotiated enterprises (Meyerhoff, 2002): day-to-day practice as well as the administration of the clubs themselves (they are members of the executive teams). As I will show in Chapter 6, they also make use of a shared repertoire, which includes standards/conventions of use for UHUM and its variants. While the conversations in the corpus took place via IM, all participants know each other in real life and are thus able to “voice” each others’ messages (i.e., they can imagine them saying them aloud). Examining the use of UHUM in one community of practice allows me to identify emergent patterns of use common to and understood by its members.

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<sup>1</sup>FBC stands for “Facebook Corpus”— the data were retrieved from Facebook Messenger.

<sup>2</sup>Of course, the standard ethical procedures were conducted before the data was added to the corpus, based on the approved University of Toronto ethics protocol #35299.

<sup>3</sup>Importantly for some of the extracts to be analyzed in Chapter 6, both of these clubs have strict rules about etiquette and respect deriving from a traditional social hierarchy system: *senpai* (members senior to oneself) and *sensei* (instructors) are to be obeyed as well as addressed respectfully in the *dojo* (practice room). Crucially, however, only a subset of members continue to follow these social rules outside the dojo.

### 3.1.3 Cross-corpus comparability

Pichler (2010: 584) has noted that “[t]he extreme context-sensitivity of discourse features hampers cross-corpora comparability and generalizability” because comparability is “not generally a design feature of dialectal corpora.” In the construction of the FBC corpus, however, I aimed for the greatest possible comparability with the earlier two corpora. Table 3.1 outlines the characteristics of all three corpora, providing the metadata necessary for “reliable cross-corpora comparisons” according to Pichler (2010: 587) as well as some supplementary information. Note that because the conversations in these corpora are completely organic and uncontrolled, some factors—especially psychological factors—are not determinable. Otherwise, as the table makes clear, the corpora are broadly similar, justifying comparisons between them.

## 3.2 Sample design

Table 3.2 lists the speakers across all three corpora, including their pseudonym, year of birth (YOB), gender, UM rate, number of tokens, relative frequency of UHUM (R.f.), total word count, and notes on speakers’ language backgrounds where relevant and available (i.e., for non-monolingual English speakers).

## 3.3 The variationist method

### 3.3.1 Outline of the method

The overall methodological framework of this study is that of variationist sociolinguistics<sup>4</sup>, initially developed by Labov (1963, 1966) and outlined comprehensively in (Weinreich, Labov, & Herzog, 1968). The foundation of this framework is the concept of the *linguistic variable*: a group of linguistic forms (*variants*) that have different surface realizations but make the same

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<sup>4</sup>For a comprehensive overview, see, Tagliamonte (2006).

Category	Factor	TTT	TEEN	FBC
Basic	Number of participants	11	17	9
	Total word count	520, 240	156, 969	971, 484
	Year(s) recorded)	2004–2006	2004–2006	2014–2017
	Year of birth	1985–1988	1987–1990	1993–1997
	Age range	17–20	15–18	18–24
	Geographic location	Toronto	Toronto	Toronto
Social	Participants' relationship	friends, partners	friends, partners	friends, partners
	Role of participants	peers	peers	peers
Physical	Assumed knowledge	various	various	various
	Communication channel	IM (computer)	IM (computer)	IM (computer, smartphone)
	Place of recording	private (digital)	private (digital)	private (digital)
	Formality	casual	casual	casual
Stylistic	Topics discussed	non-prepared	non-prepared	non-prepared
	Attitudes re: interaction	various	various	various
Semantic	Attitudes re: topic	various	various	various
	Goals of interaction	various	various	various
Psychological	Speech situation/event	dialogic	dialogic	dialogic
	Activity context	discussion	discussion	discussion

Table 3.1: Corpus metadata



Pseudonym	YOB	Gender	UM %	Tokens	R.f.	Words	Notes <sup>a</sup>
TTT corpus							
alewis	1988	F	100	8	.457	17511	
claterman	1985	M	85	20	.732	27331	
ddenis	1985	M	91	149	.561	265802	
dhodinott	1986	M	100	2	.118	16933	
dmarland	1986	M	0	1	.0716	13973	
hllull	1986	F	92	343	4.98	68842	
jmccleary	1988	M	0	1	.170	5884	
kmayewsky	1987	F	100	5	.518	9656	
mscata	1985	M	25	12	.388	30940	
msperry	1987	F	0	15	.370	40507	
swaters	1985	M	82	17	1.88	9023	
TEEN corpus							
alo	1987	F	50	2	.858	2330	
aluc	1988	M	0	11	.742	14828	
avikhailovitch	1990	F	100	8	2.14	3731	
bqiao	1987	M	0	1	.591	1692	
ckierans	1988	F	27	151	1.22	2291	
ebaxter	1988	F	89	9	2.59	3479	
jdayton	1988	F	40	20	1.83	10936	
kchamis	1990	M	39	18	1.51	11942	
mfoto	1988	F	86	35	2.66	13177	
mpak	1988	M	67	3	6.33	474	
msanjose	1988	M	100	1	.535	1869	
pkowlakowski	1990	F	100	6	2.66	2257	
sbudge	1990	F	77	13	1.49	8734	
sdreisman	1989	M	67	3	1.42	2107	
sessel	1989	F	25	4	1.74	2300	
tflemwood	1988	M	100	7	1.16	6024	
tfriedman	1988	M	93	61	1.27	47952	
FBC corpus							
adam	1993	M	67	3	.0375	79945	L1 Cantonese, L2 English
alice	1995	M	52	121	1.02	118625	BL English-Japanese
anna	1993	F	65	283	1.62	174975	HL Mandarin, L1 English
emily	1997	F	9	67	2.09	32024	
jeff	1995	M	0	31	.365	84935	
louise	1993	F	50	10	.912	10970	BL English-Japanese
sam	1996	M	67	3	.102	29459	
stella	1993	F	50	10	.525	19054	
tim	1995	M	29	195	.463	421497	

<sup>a</sup> Ln = nth language, BL = *bilingual*, HL = *heritage language*

Table 3.2: Sample design

semantic contribution (i.e., different ways of saying the same thing) (Labov, 1966). Variables vary within individuals (i.e., an individual may use different variants of the same variable on different occasions) and between individuals (i.e., different individuals have different rates of use of each variant). According to Weinreich et al. (1968: 100), variation is governed by a set of structured predictors (*orderly heterogeneity*), both internal (linguistic) and external (social).

Of critical importance in the variationist method is the *principle of accountability* (Labov, 1972: 72): researchers must extract and analyze of all *tokens* (instances of a variable) which fall into the *variable context* (the set of all possible environments in which the variable could occur). Without satisfying the principle of accountability, reliable statistical analysis is not possible—an analysis of only the tokens of interest to the researcher is bound to be biased.

### 3.3.2 Applying variationist analysis to discourse-pragmatic variation

Discourse-pragmatic features, including UHUM, are not as easily investigated using the variationist method as phonological or morphosyntactic variables. It is difficult to determine the precise variable context and set of variants for discourse-pragmatic variables because, as Pichler (2010: 588) notes, discourse-pragmatic features do not all occur in the same segmental or phonological slot, and they are optional: their presence or absence does not affect the truth-conditions of the proposition. This means that the set of variants corresponding to one variable cannot be based on semantic equivalence. While functional equivalence has been adopted in some analyses (e.g., Dines, 1980; Lavandera, 1978), this is not always feasible, since many discourse-pragmatic variables are multifunctional and continue to develop new pragmatic functions over the course of grammaticalization (Pichler, 2010: 589). Denis (2017: 161) notes that, for example, while general extenders are often conceptualized as one variable system, there are actually two separate types of general extenders—*adjunctive* and *disjunctive*—which are not always kept separate in the variationist literature.

In this paper, I adopt Pichler's (2010: 590–591) concept of the discourse-pragmatic variable as a set of variants which have an underlying structural similarity—variants which are

“formed with the same components” and “occur in the same syntactic environment”. This allows me to close the set of variants around UH and UM and conduct an accountable analysis of the variation between just these two markers. I describe this variation in the following section.

## 3.4 Circumscribing the variable context

### 3.4.1 The variable context

For the purposes of this study, I treat the variable context as any occurrence of either UH or UM, aside from the exclusions noted in the next section.

There is a potential case to be made for including other ‘planners’, including *well*, *you-know*, *I-mean*, and *like*, in the envelope of variation (Tottie, 2018). However, for reasons relating both to replicability/consistency and to the theory of discourse-pragmatic variation (see previous section), I include only UH and UM.

In terms of replicability and consistency, in focusing my analysis on UH and UM I follow Fruehwald (2016) and Wieling et al. (2016), themselves following the lead of the literature in psycholinguistics (e.g., Clark & Fox Tree, 2002), which has traditionally treated UH and UM as separate from other ‘fillers’.

There are also important structural similarities between UH and UM that justify their treatment as variants of a single variable. For instance, while pragmatic markers usually consist of semantically bleached lexical items, like *I-mean* and its ilk (Tottie, 2016: 99), neither UH nor UM derives from a lexical item or set of lexical items, at least transparently. They also share a similar phonological and orthographic structure—in Canadian English both are pronounced with /ə/, the only difference being that UM is followed by /m/; and they are both spelled using the letter ⟨u⟩. Kendall (2013) has also found that silent pauses adjacent to UHUM are significantly longer than those adjacent to other putative planners, potentially indicating that they are part of a different set.

### 3.4.2 Extraction and excluded contexts

I extracted every instance of ⟨uh⟩ or ⟨um⟩ in the corpus, allowing for reduplication and/or capitalization of either letter (e.g., ⟨Uhhhh⟩, ⟨uuummmm⟩, or ⟨UHHH⟩).

Some cases of ⟨uh⟩ or ⟨um⟩ were not included. For example, in ⟨uh oh⟩, while the same letters are used, ⟨uh⟩ is not used as a pragmatic marker itself but as a part of an unrelated exclamation.

### 3.4.3 A note on the ellipsis (⟨...⟩)

There is reason to consider the ellipsis (⟨...⟩) as part of the variable context, since it represents an unfilled pause and sometimes behaves similarly to UHUM in terms of function<sup>5</sup>. Aside from the reasons I give above for restricting the variable context to just UH and UM, there are some practical constraints which have led me to leave the ellipsis out of the present study. In particular, it is very difficult to separate the ellipsis's use as a discourse marker from its use as a punctuation marker. For example, in (2a), ⟨...⟩ appears to be a discourse marker, indicating the speaker's stance, whereas in (2b), ⟨...⟩ appears to be a punctuation marker, similar to the way a comma could be used.

- (2) a. .... // I just realized how small this division/tournament is // Half of the participants are from UofT // not hyped anymore // :( (F/1995)
- b. i also have a version that is 5 minutes long... but that is like half our set haha (M/1985)

Without inspecting every single instance of ⟨...⟩ (of which there are far more than instances of UHUM), it would not be possible to collect all of the discourse-marker tokens within the timeframe of this paper, so I leave this aside for future work.

<sup>5</sup>Thanks to Ai Taniguchi (p.c. via Derek Denis, Sept. 23, 2017) for bringing this to my attention.

### 3.5 Coding schema

Each token was coded for participant sex/gender<sup>6</sup> (*male* or *female*) and year of birth. These were used to operationalize the change-in-progress hypothesis drawn from Fruehwald (2016) and Wieling et al. (2016): since *um* is the incoming variant in speech, women and young speakers are expected to favour *um*.

I operationalized Maclay and Osgood's (1959) turn-taking hypothesis by coding each token for its location in the current turn. The possible levels were *turn-initial* (3a), *turn-medial* (3b) and *turn-final* (3c).

- (3) a. **uuuuuh** hahaha i dunno man, hahah that might be alittle too strange..... (M/1985)
- b. I just saw that they rescheduled the video review for today at 8 D: // so **uh**, I should get going x.x (F/1993)
- c. i got a pair of green cords, some undies, two movies, a ramones cd, **ummm**.... (F/1986)

Because Tottie (2017) identified a functional difference relating to position within a sentence for UHUM in journalistic writing, I coded for the position of UHUM within the message. The possible levels were *message-initial* (4a), *message-medial* (4b), *message-final* (4c) and *solo* (4d) (a token of UHUM that constituted an entire message). Because many *solo* tokens immediately preceded and appeared to be related to another full message, the *solo* tokens were subdivided into *solo-initial* (preceding another full message), *solo-medial* (occurring between two related full messages), *solo-final* (following a full message) and *solo-solo* (standing alone without connection to adjacent messages).

- (4) a. he's been in documentary stuff // **umm** is she famous? (F/1986; turn-medial)
- b. LOL omg i imagined **um** something from vagabond i don't think you're there yet

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<sup>6</sup>For the TTT and TEEN corpora, only sex information was available; for the FBC corpus, both sex and gender were provided by the participants, but there were no cases in which a participant's self-reported biological sex differed from their identified gender.

- hough (F/1993; turn-medial)
- c. yeah ahha thats why i was like. **ummm...** // yay london calling (F/1986; turn-medial)
- d. **um...** // Isn't that illegal in Canada? (M/1988; turn-initial)

I also coded for polarity—i.e., whether or not the clause containing UHUM was syntactically positive (5a) or negative (5b)—to determine if polarity had any effect on the realization of UHUM. I checked for this effect because of the high proportion of negative-polarity utterances along the lines of “I don’t know” or “I’m not sure” which were accompanied by UHUM.

- (5) a. **Uhh** if I can make it yeah // But I srsly need to get it together cuz it's my final year so idk how often I can go tbh (F/1995)
- b. **Uh** // We didn't // Snort // Anything (F/1997)

Finally, I noticed while coding the data that a great many tokens occur in responses to questions. I therefore coded for what I refer to here as “speech act”—which I use here to refer to the relation of the token to any ongoing questions. Specifically, I coded tokens which occurred when the speaker was asking a question as *question* (6a), tokens which occurred when the speaker was responding to a question as *response* (6b), and tokens which occurred when neither was the case as *other* (6c).

- (6) a. **uhm**, it's not dangerous to plug in electric things when there's lightening outside, is it? >< (F/1993)
- b. **Uhm** it depends // But tomorrow I'm working on the meowing // Morning (F/1995)
- c. but i have like school of rock, igby goes down, **umm...** mona lisa smile... matchstick men.... (F/1986)

## 3.6 Statistical tools & analysis

To conduct my analysis, I employ several tools implemented in the programming language and free-software environment R (R Core Team, 2018). In particular, the `lme4` package (Bates et al., 2015), and specifically the functions `lmer()` and `glmer()`, are used to conduct mixed-effects logistic regression in a similar manner to tools like GoldVarb (Tagliamonte, Sankoff, & Smith, 2005) but without the associated statistical issues (e.g., the tendency for Type I errors and the now-strongly-proscribed use of stepwise model-building, see Johnson, 2009). Mixed-effects regression enables the incorporation of random effects for individual speaker, enabling the model to account for individuals' different baseline rates of use of a given variable (Johnson, 2009: 365). I use the package `lmerTest` (Kuznetsova, Brockhoff, & Christensen, 2017) to provide significance testing for `lmer()` models, as by default these are not possible in `lme4`.

The `lme4` models presented in this paper make use of reference or “dummy” coding—the estimates given for each level of a categorical predictor are in relation to the *reference level*. For example, in Table 4.2 on Page 27, the negative estimate for noninitial turn position ( $-0.101825$ ,  $p = 0.000110$ ) indicates that when all other categorical predictors are held at their reference level and continuous predictors are held at zero, UHUM is less likely in non-initial turn position than in initial turn position, i.e., it is disfavoured. For continuous predictors, like age in Table 4.2, the estimate can be interpreted as the change in probability of the dependent variable (in this case, the count of UHUM tokens) per each increase of one unit (years, in this case).

All plots presented in this paper are built using the `ggplot2` package (Wickham & Chang, 2008), an R implementation of Wilkinson's (2006) *Grammar of Graphics* which enables the creation of complex, layered graphs using simple code.

Data preparation, recoding and other manipulations were conducted using Hadley Wickham's `tidyverse` (Wickham, 2017), a set of packages designed to make data organization and manipulation in R easier.

# Chapter 4

## Variable UHUM overall

### 4.1 Introduction

The main focus of this paper is the variation between `UH` and `UM`. However, so as to give a complete picture of UHUM's use in IM, in this chapter I aim to sketch the patterns associated with UHUM as a whole: contexts in which it is more or less likely to appear, and external predictors which condition its relative frequency (the number of tokens per 1000 words). These normalized frequency measures allow me to determine which speakers use UHUM more or less often and check for trends by various social and linguistic factors while ensuring that the measures are comparable and replicable (for further discussion, see Pichler, 2010: 594).

### 4.2 Descriptive statistics

#### 4.2.1 Token counts

This subsection presents UHUM token counts by internal factors. External factors are not included as different speakers had different amounts of data; external factors are thus better examined using a relative frequency measure, see §4.2.2.

Figures 4.1 to 4.3 show the number of UHUM tokens by message (4.1), turn position (4.2)



and speech act type (4.3). It is clear from these figures that the most UHUM-ful context is turn-initial, message-initial, and non-interrogative.

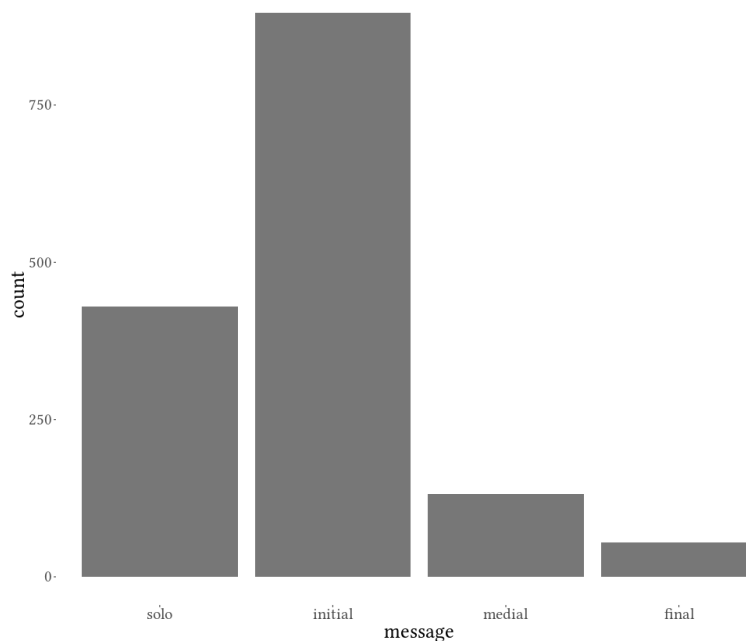


Figure 4.1: Number of UHUM tokens by message position

### 4.2.2 Relative frequency

Table 4.1 shows the mean relative frequency (i.e., the number of UHUM tokens for each speaker per 1000 words) for the speakers in each corpus, compared to spoken data from Wieling et al. (2016) and Denis and Gadanidis (2018). The relative frequency of UHUM in IM is clearly much lower than in speech: even TEEN, which has the highest average rate—1.81 UHUM per 1000 words—is dwarfed by the spoken data, in which the lowest average rate is the British National Corpus’s (BNC) 8.80 UHUM per 1000 words.

Looking closer at individual variation within the IM data, Figures 4.4 and 4.5 show the relative frequency of UHUM per 1000 words, coloured by gender and by corpus respectively. Individuals vary greatly in their UHUM rates, and high-UHUM-users and low-UHUM-users are fairly well-distributed across genders and across corpora—although the majority of the younger TEEN speakers are clustered on the higher end.

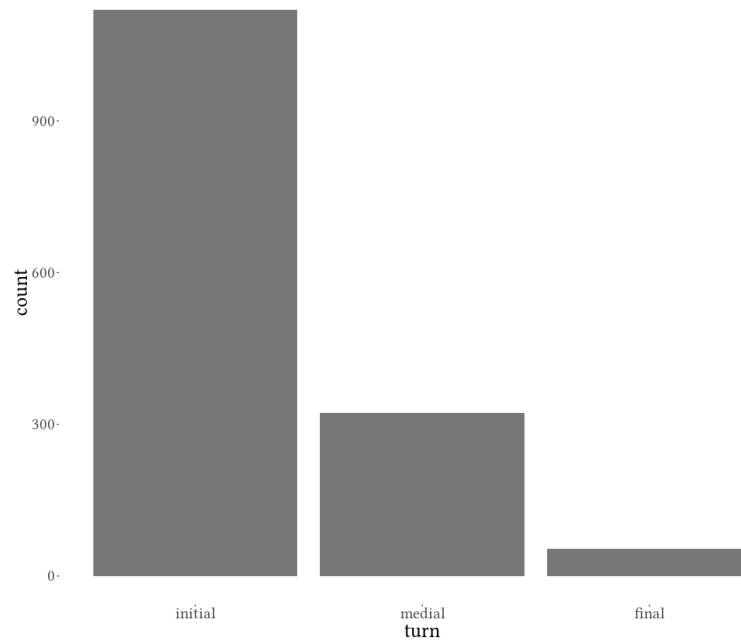


Figure 4.2: Number of UHUM tokens by turn position

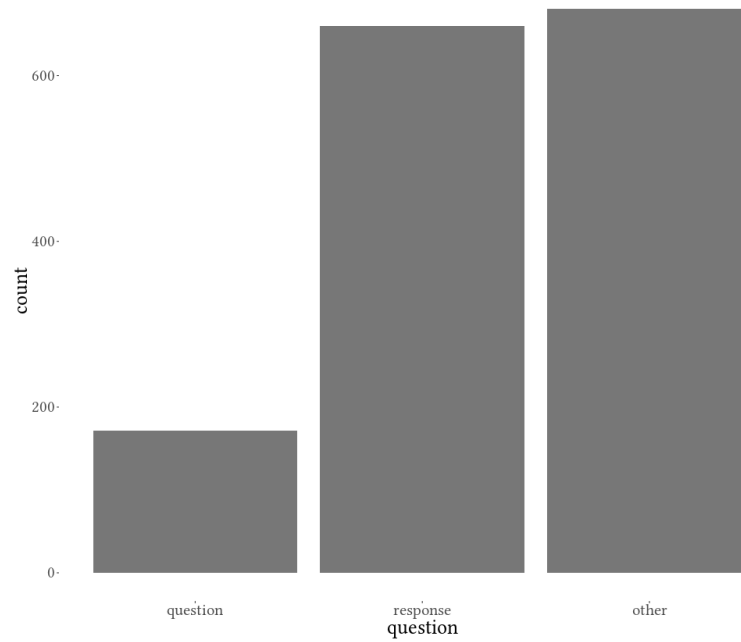


Figure 4.3: Number of UHUM tokens by speech act

Community	Mean r.f.	Year(s) recorded	Birth years	Source
TTT	.932	2004–2006	1985–1988	current study
TEEN	1.81	2004–2006	1987–1990	current study
FBC	.793	2014–2017	1993–1997	current study
Switchboard	29.6	1990	1923–1974	Wieling et al. (2016)
Fisher	16.7	2002–2003	???–1986	Wieling et al. (2016)
PNC	17.7	1973–2013	1888–1991	Wieling et al. (2016)
BNC	8.80	1993	???	Wieling et al. (2016)
Niagara	25.4	1984	1898–1917	Denis and Gadanidis (2018)
Eastern Ontario	25.0	1984	1891–1919	Denis and Gadanidis (2018)

Table 4.1: Comparison of IM data to historical and contemporary spoken data

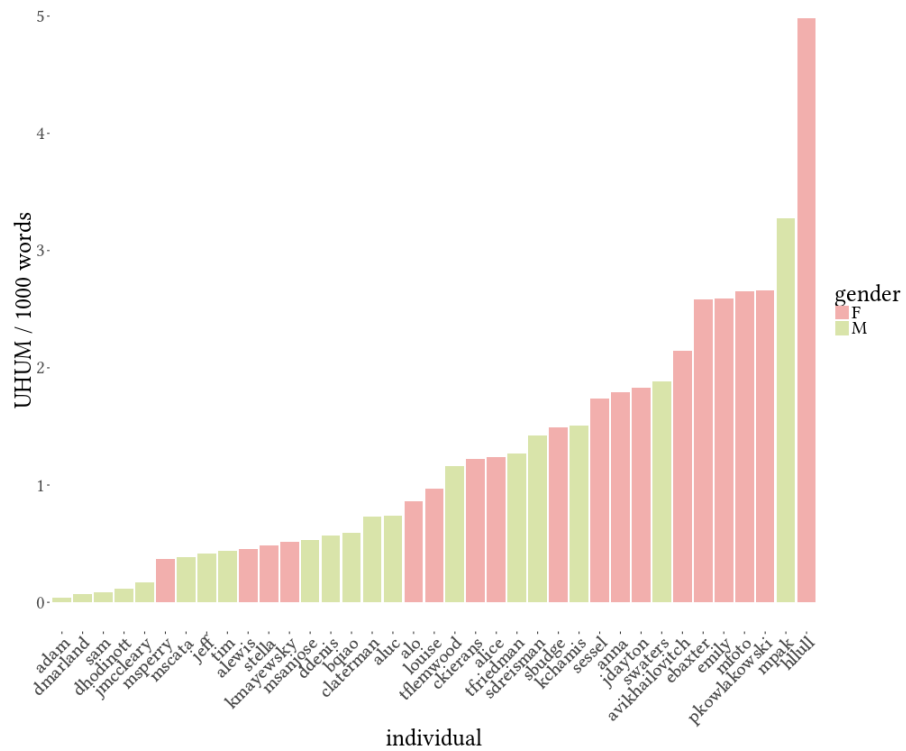


Figure 4.4: Relative frequency of UHUM per individual, coloured by gender

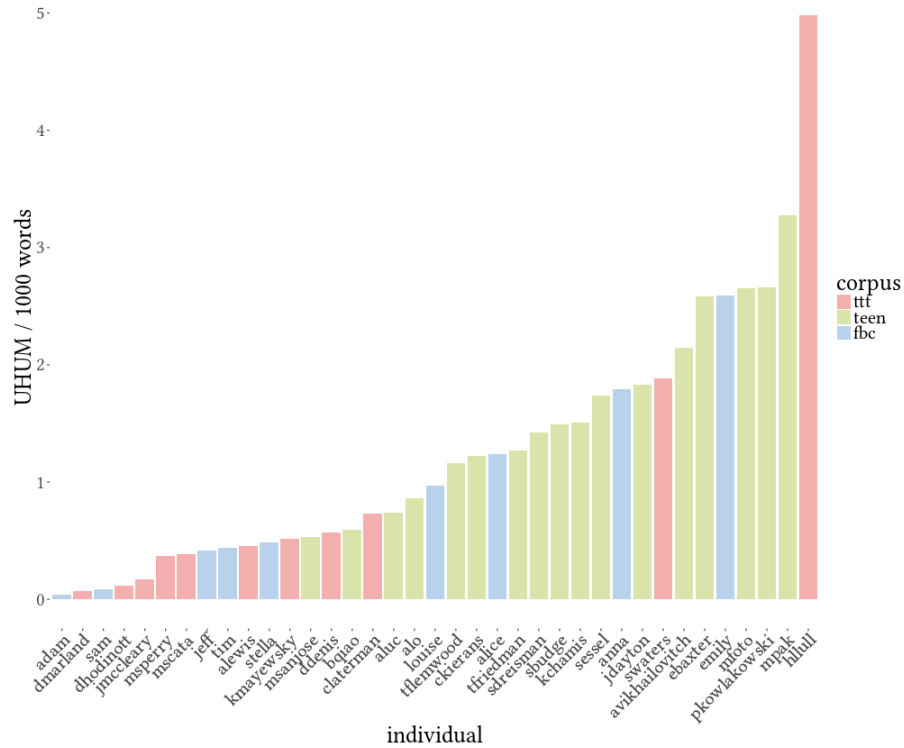


Figure 4.5: Relative frequency of UHUM per individual, coloured by corpus

Figure 4.6 shows each individual’s rate of UHUM by their year of birth. Note that the line of best fit is essentially flat: there does not appear to be any significant change in individuals’ rate of UHUM by their year of birth.

On the other hand, Figure 4.7 shows each individual’s rate of UHUM by their approximate age at the time the message was sent.<sup>1</sup> In this plot, there is a clear correlation between age and UHUM: older speakers use UHUM less, regardless of their date of birth. Figure 4.8 shows another view of the same figure, with each individual at different time points linked using a unique colour. While some speakers’ use of UHUM increases with age (kmayewsky and clateman), most speakers show relatively large drops as time goes on.

<sup>1</sup>This was calculated by subtracting each individual’s year of birth from the year each message was sent.

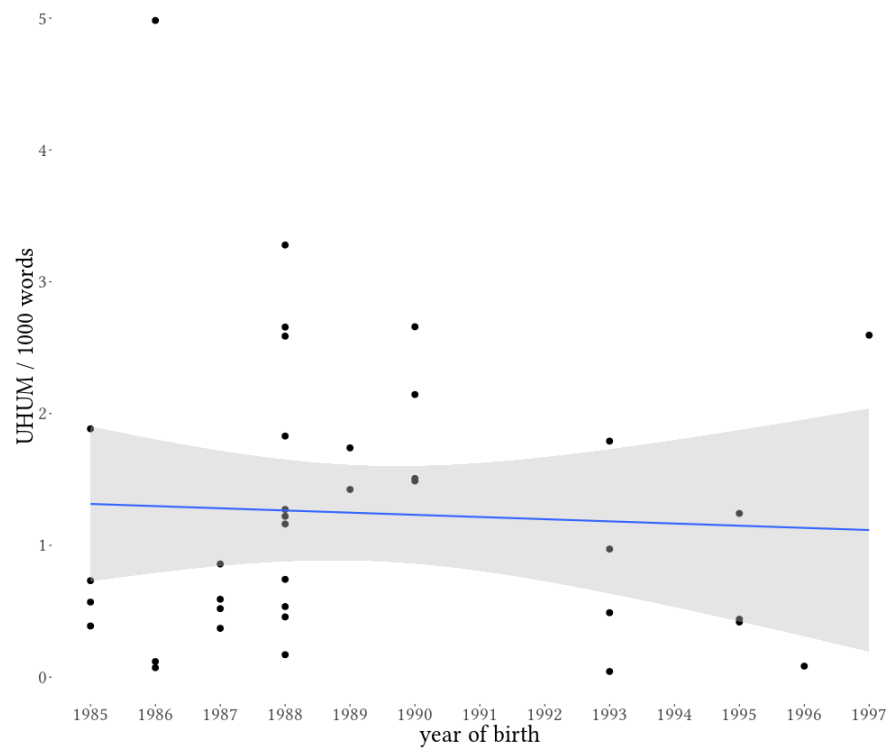


Figure 4.6: Relative frequency of UHUM by year of birth

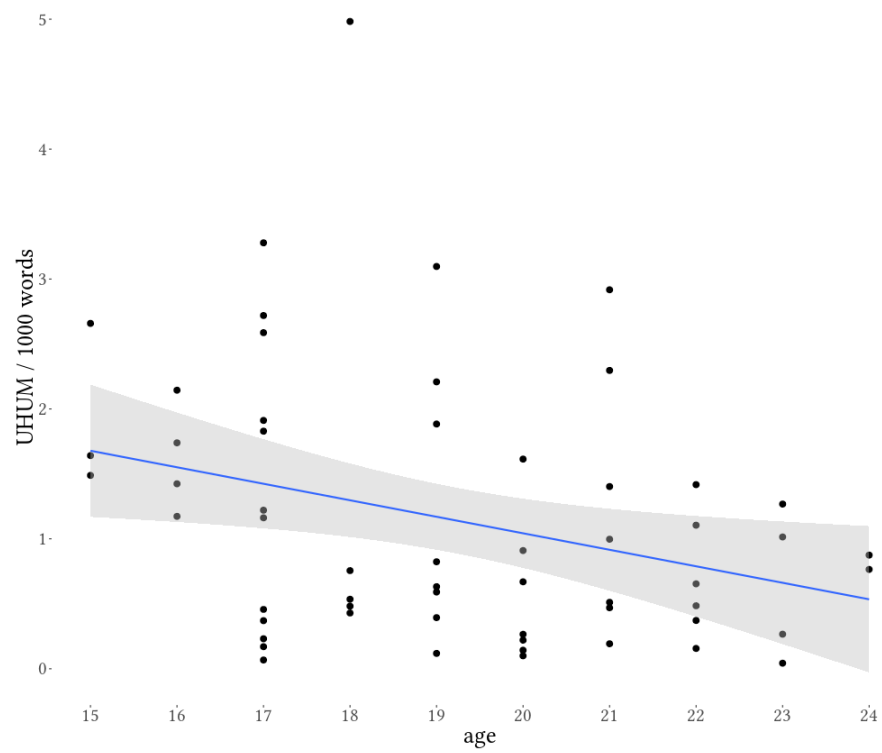


Figure 4.7: Relative frequency of UHUM by age at time of message

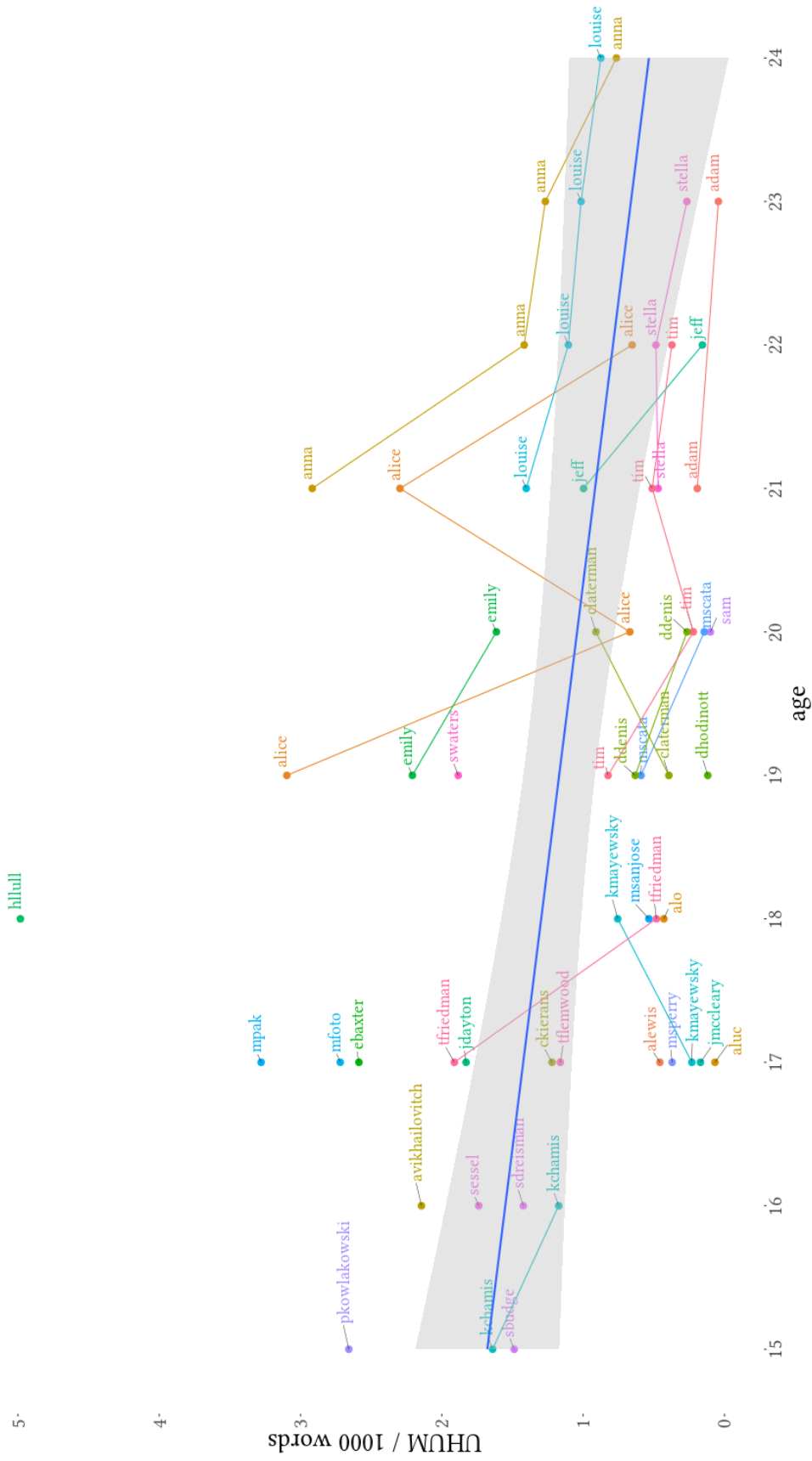


Figure 4.8: Relative frequency of UHUM by age at time of message, with the same individuals at different ages linked

### 4.3 Multivariate analysis

Table 4.2 shows the results of a generalized linear mixed-effects Poisson regression on the frequency of UHUM (with an offset by word count to normalize across speakers). Poisson regressions are used for count data because, unlike linear/logistic regression, it limits the range of possible values to zero and above and does not require the assumption that the data are normally distributed.

The predictors which are significantly correlated with the frequency of UHUM are age, gender, position in message, position in turn and speech act. UHUM is less frequent with older speakers than with younger speakers and less frequent with male speakers than with female speakers. UHUM is also more frequent message- and turn-initially and less frequent in questions, and there is a significant interaction between message position and turn position: UHUM is less unlikely to appear in tokens which are both message-noninitial and turn-noninitial than would be expected by simply adding the main effects.

### 4.4 Discussion

The results in this chapter show that UHUM is more frequent message-initially, turn-initially and in non-questions, as well as with younger speakers (regardless of when they were born).

The correlation with turn position could be interpreted as an indication that UHUM is used for turn management in IM, along the lines of Maclay and Osgood (1959). However, recall that the turn-managing function of UHUM is supposed to be *holding* the turn (Maclay & Osgood, 1959: 41–42), not taking it. We would expect therefore that UHUM would be frequent turn-finally, but this is actually its rarest context<sup>2</sup>. The turn-taking function of UHUM in IM, if it exists, is thus clearly different than the putative turn-holding function of UHUM in speech. An examination of the turn-initial tokens also does not turn up any clear examples of UHUM

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<sup>2</sup>Derek Denis (p.c., July 11th, 2018) points out that this could also indicate very successful floor-holding, such that the use of UHUM to hold the turn is unnecessary. Regardless of the reason, UHUM does not appear to be used for floor-holding in the IM data.

Predictor	Estimate	Std. Error	z-value	Pr(> z )		Mean r.f.						
<b>OVERALL:</b>												
Intercept	-8.694094	0.221791	-39.20	< 2e-16	***	1.24						
<b>GENDER:</b>												
Female	<i>reference level</i>					1.70						
Male	-0.539825	0.272530	-1.98	0.047614	*	0.81						
<b>MESSAGE POSITION:</b>												
Initial	<i>reference level</i>					0.76						
Solo	-0.733960	0.068401	-10.73	< 2e-16	***	0.55						
Noninitial	-2.077146	0.177569	-11.70	< 2e-16	***	0.23						
<b>TURN POSITION:</b>												
Initial	<i>reference level</i>					0.95						
Noninitial	-1.420763	0.096592	-14.71	< 2e-16	***	0.41						
<b>SPEECH ACT:</b>												
Question	<i>reference level</i>					0.54						
Response	0.930460	0.088297	10.54	< 2e-16	***	0.23						
Non-interrogative	0.882788	0.088857	9.93	< 2e-16	***	0.72						
<b>AGE:</b>												
One-year increase	-0.207018	0.060312	-3.43	0.000598	***	N/A						
<b>YEAR OF BIRTH:</b>												
One-year increase	0.010735	0.038162	0.28	0.778480		N/A						
<b>MESSAGE × TURN:</b>												
Initial : Initial	<i>reference level</i>					0.69						
Solo : Noninitial	0.411566	0.146681	2.81	0.005018	*	0.26						
Noninitial : Noninitial	1.536591	0.216092	7.11	1.15e-12	***	0.21						
<b>AGE × YEAR OF BIRTH:</b>												
Age : Year of birth	-0.008313	0.015703	-0.53	0.596540		N/A						
<table border="1" style="margin: auto;"> <thead> <tr> <th>Random intercepts</th> <th>Variance</th> <th>Std. Deviation</th> </tr> </thead> <tbody> <tr> <td>Individual</td> <td>0.4219</td> <td>0.6495</td> </tr> </tbody> </table>							Random intercepts	Variance	Std. Deviation	Individual	0.4219	0.6495
Random intercepts	Variance	Std. Deviation										
Individual	0.4219	0.6495										

Table 4.2: Linear mixed-effects Poisson regression model for UHUM with individual as random intercept; 37 individuals



being used to take a turn from another speaker. Most cases occur when the interlocutor has already naturally ended their turn, as in Extract 4.1.

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1	Anna: are you going straight home after class tomorrow?
2	Tim: Weren't we going to eat ramen?
3	Tim: Or are you guys going for lunch instead?
4	Anna: <b>uhhh</b>
5	Anna: I have no idea what everyone is doing actually

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Extract 4.1: Turn-initial UHUM occurring after natural turn ending

It seems therefore that UHUM's prevalence in turn-initial position is likely to be unrelated to turn management in and of itself, and possibly a reflection of the tendency for UHUM to occur message-initially. The significant interaction showing that there is essentially no cumulative effect of turn-noninitialness and message-noninitialness lends support to this interpretation and suggests that these predictors may simply be different ways of measuring the same phenomenon. As we will see in Chapter 6, UHUM tends to mark stance initially, so the tendency toward initialness may reflect a high proportion of stance-marking tokens.

There is also evidence that age may play a role in the frequency of UHUM, with older speakers using UHUM less often than younger speakers, a pattern along the same lines as Tagliamonte and Denis's (2008: 13) finding that IM terms like *lol* decline with age. This appears to be a case of age-grading, wherein a linguistic feature is used by the same individuals at different rates at different times in their lives.

(7), in which Twitter user @scalzi suggests that UM is used by or associated with 14-year-olds<sup>3</sup>, provides anecdotal support for this interpretation.

(7) Folks, unless you are actually 14, may I suggest that prefixing "um," to whatever argument you are about to make is not the effective rhetorical tool you think it is. I usually don't read past "um" in tweets because my eyes are already rolling in my head.

The lack of any significant year-of-birth correlation indicates that over the decade cap-

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<sup>3</sup>See Chapter 6 for further discussion of this example.

tured in the corpora studied here, there is no observable change in progress in terms of how often individuals use UHUM. This suggests that UHUM was not a new or rising feature of IM speech in 2004—it was used with roughly the same frequency then as it was in 2017—and it is not in decline either. In other words, it is a stable part of the discourse-pragmatic system in IM.

The amount of individual variation in the relative frequency of UHUM is striking. While some speakers approach 3–6 uses of UHUM per 1000 words, including mpak (6.33), hllull (4.98), pkowlakowski (2.66), mfoto (2.66), and ebaxter (2.59), others hover around zero, including Adam (0.0375), dmarland (0.0716), Sam (0.102), dhodinott (0.118), and jmcclarey (0.170). While gender is not a significant predictor of the frequency of UHUM in the model, and more moderate speakers' genders are relatively well-distributed, these extreme ends of the spectrum do seem to be stratified by gender: with the exception of mpak<sup>4</sup>, all the speakers on the top end are female, and all the speakers on the bottom end are male.

It should also be noted that Adam, who has an astonishingly low relative frequency of only 0.0375 UHUM per 1000 words, is not a fluent speaker of English. Olynyk, d'Anglejan, and Sankoff (1987) have found that in speech, low-fluency speakers are less likely to use “progressive” speech markers (markers which occur before a repair), such as UHUM, than “regressive” speech markers (markers which occur after a repair). While it is not possible to determine whether the frequency of UHUM in speech and the frequency of UHUM in IM are correlated, this looks to be a promising avenue for future research.

Overall, the picture in this chapter is of a stable discourse-pragmatic feature with an established niche: in IM, UHUM is most frequent turn- and message-initially, and it occurs often in answers to questions. There is no evidence of a change in progress in terms of the overall frequency of UHUM, and the only social predictor which is even marginally correlated with UHUM in the model is age. In other words, while individuals certainly have (in some cases drastic) different rates of use of UHUM, all speakers use it and the inter-speaker differences

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<sup>4</sup>It should also be noted that mpak is the speaker with the least data (and therefore the speaker with the highest probability of being an outlier).

do not pattern systematically with most macro-level social predictors. In the next chapter, I turn to an investigation of the variation between UH and UM, where the picture is much more complex.

# Chapter 5

## Factors conditioning the choice of variant

### 5.1 Introduction

Having determined which factors are correlated with the relative frequency of UHUM overall, in this chapter I investigate the factors which are correlated with each variant. I conduct descriptive statistics and run mixed-effects models in order to determine which factors favour UH and UM, so as to determine the social and linguistic constraints governing the variation, as well as to determine whether a similar change-in-progress pattern favouring UM exists in this data as in Fruehwald (2016) and Wieling et al. (2016).

### 5.2 Descriptive statistics

#### 5.2.1 Distribution

Figure 5.1 shows the proportion of UM over UH for each speaker by year of birth; the trendline is based on each speaker's proportion. There is a clear downward trend in the UM rate as the year of birth approaches 1997. This is opposite the trend reported by Wieling et al. (2016) and Fruehwald (2016)—rather than a change in progress toward UM, we see a change in progress toward UH.

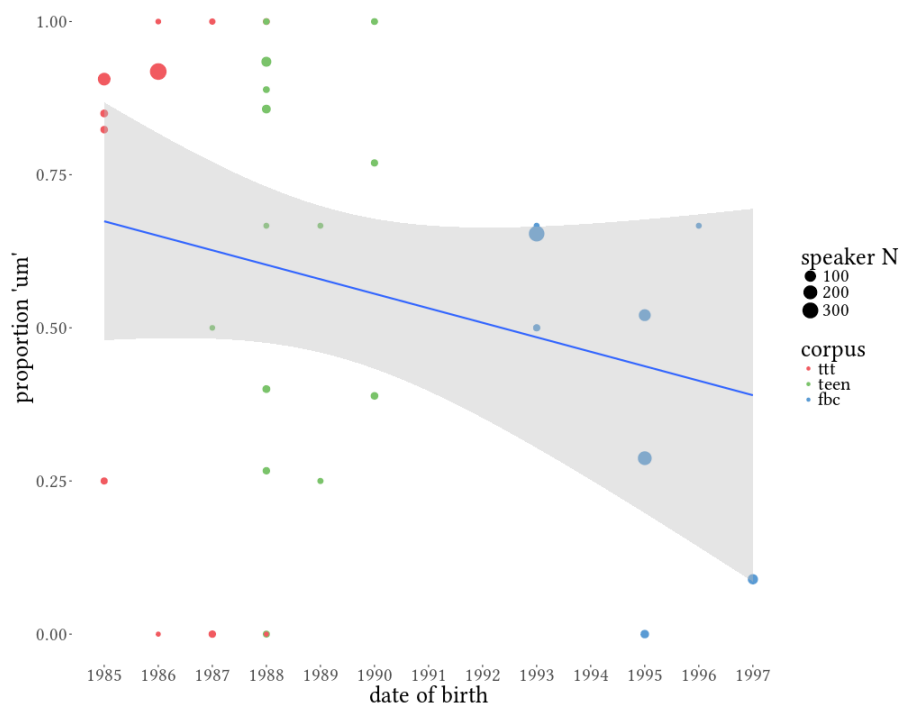


Figure 5.1: Distribution of UH vs. UM by year of birth

Figures 5.2 and 5.3 show the proportion of UM over UH for each individual in ascending order, coloured by corpus and by gender respectively. Each individual represents one bar; the number above each bar is the total number of tokens for that individual.

In both charts, a striking amount of individual variation is evident: there are speakers at 0% UM, speakers at 100% UM, and everywhere in between. There is also a clear pattern in Figure 5.2: no speaker from FBC has an UM rate above 65%, and most are at 50% or lower, while the majority of the speakers from the other corpora are above 75% UM. In Figure 5.3, however, the speakers are relatively evenly distributed by gender.

Figures 5.4 and 5.5 show the distribution of UH and UM by message and turn position, respectively, faceted by corpus. TTT and TEEN have been collapsed into one group for these graphs, because the two corpora are roughly comparable and the low token count in TEEN is otherwise misleading.

For message position (Figure 5.4), both the TTT/TEEN group and the FBC group have the same pattern: UM is most frequent in initial position, followed by solo and medial position,

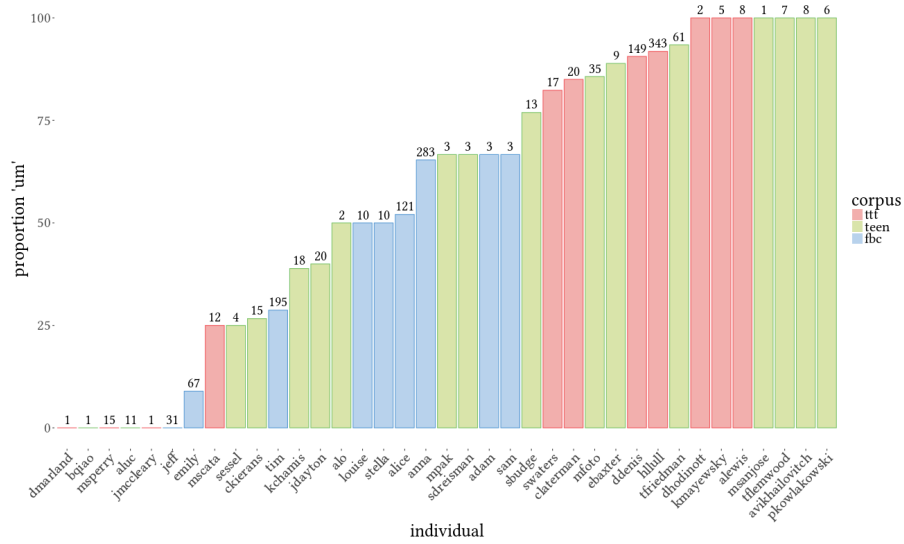


Figure 5.2: Distribution of UH vs. UM per speaker

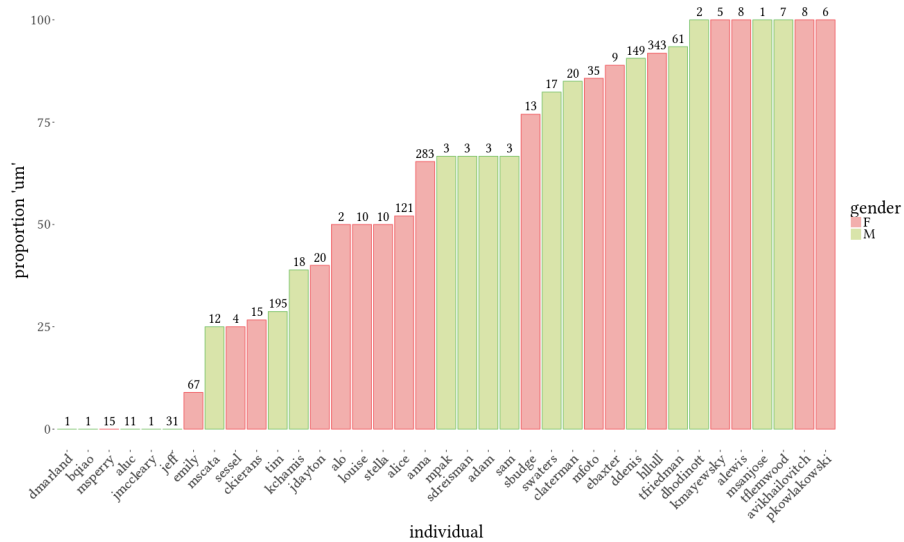


Figure 5.3: Distribution of UH vs. UM by gender

with the fewest UM tokens appearing in final position. The only differences between the two groups are that FBC has a lower baseline rate of UM, and FBC also has a slightly larger gap between solo/medial and final position.

For turn position (Figure 5.5), on the other hand, there is no consistent pattern. In TTT/TEEN, turn-initial tokens have the highest rate of UM, while in FBC, turn-initial tokens have the *lowest* rate of UM. This pattern appears to be due to the use of different turn structures in the older and newer data. In the older data, a turn generally consists of one or two messages, and each message typically consists of one or more full clauses. Extract 5.1 is a representative example from TTT. In the newer data, however, turns often consist of several messages, and each message corresponds not to full clauses but to smaller phrasal elements, e.g. noun or prepositional phrases. Extract 5.2 is a representative example from FBC. This also leads to cases where turns overlap, as in Extract 5.3, in which Tim's UH on line 13 is turn-final instead of turn-medial because Anna's contribution on line 14 appears between Tim's contributions on lines 13 and 15. Given these differences, it is unsurprising that the pattern by turn should differ in different corpora. This speaks to the importance of examining the characteristics of given corpora before comparing them (see also Pichler, 2010)—emergent turn conventions in these corpora, while unavoidable, make the data less comparable.

Figure 5.6 shows the distribution of UH vs. UM by speech act in the two groups. In both groups, the most UM-ful context is responses to questions. While the differences between different levels in the older group are small, in the newer group they are substantial—especially between responses to questions and other non-question contexts.

### 5.2.2 Relative frequency

There is a clear change in progress toward UH in the proportional data. However, the origin of this change remains unclear. Broadly speaking, there are two possibilities: this could be a case of simple lexical replacement (i.e., UH replacing UM in the same contexts) or of functional expansion (i.e., UH taking on a new discourse function, boosting its usage) (Fruehwald,

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1 ddenis: how are you gonna get here hun?  
 2 hllull: **um...** i uguess by bus?  
 3 ddenis: mmk  
 4 ddenis: which one?  
 5 hllull: 4 or 5 something?  
 6 ddenis: :(  
 7 ddenis: but daniel's thing is at 5  
 8 hllull: what?  
 9 hllull: is it?  
 10 ddenis: yeah  
 11 ddenis: but whatever, come whenever you wanna  
 12 hllull: 8-) why is it so early?  
 13 ddenis: i don't know????? cause we are having dinner?  
 14 ddenis: if you don't want to come you don't have to  
 15 hllull: oh  
 16 hllull: no i do  
 17 ddenis: well what are you doing all day?  
 18 ddenis: why can't you come until then?  
 19 hllull: well.. im kinda tiiired... i DID get up EARLY  
 20 hllull: :|  
 21 ddenis: ok then go sleep

---

Extract 5.1: Turn structure in TTT

---

1 Tim: Hey why can't you carry two snakes in Japan  
 2 Alice: **Uhm**  
 3 Alice: Cuz it's too  
 4 Alice: Heavy  
 5 Alice: ?  
 6 Tim: CUZ THEY'RE TWO HEBI aHhHaahhahHwhahahahhahAHHAAHh  
 7 Alice: ....

---

Note: *Hebi* means 'snake' in Japanese.

Extract 5.2: Turn structure in FBC



---

1 Tim: My shoulder is severely tense  
 2 Tim: From the mega bus ride  
 3 Anna: Oh no...D:  
 4 Anna: Is it still tense?  
 5 *Tim does not respond for about five minutes*  
 6 Anna: Hey! I found a photo of you :D  
 7 Anna: [sends link to photo]  
 8 Anna: You look grim o.o  
 9 Tim: LOL  
 10 Tim: I was grim >:(  
 11 Anna: ?? D:  
 12 Tim: It's still tense  
 13 Tim: Uh  
 14 Anna: You were grim cuz of the tense shoulder? o-o  
 15 Tim: But it's probably going to be OK  
 16 Anna: Okay, I hope so ><  
 17 Anna: How does it get tense from riding the bus? o.O  
 18 Tim: No I was just being goofy

---

Non-indented material is part of the first conversational track, about Tim's tense shoulder; indented material is part of the second conversational track, about why Tim looks grim in a photo.

Extract 5.3: Overlapping speech in FBC

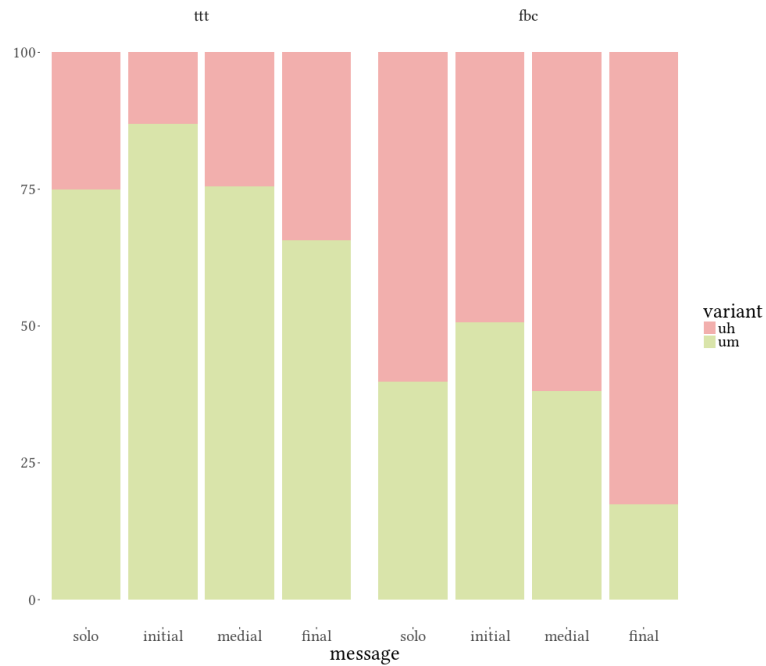


Figure 5.4: Distribution of UH vs. UM by message position

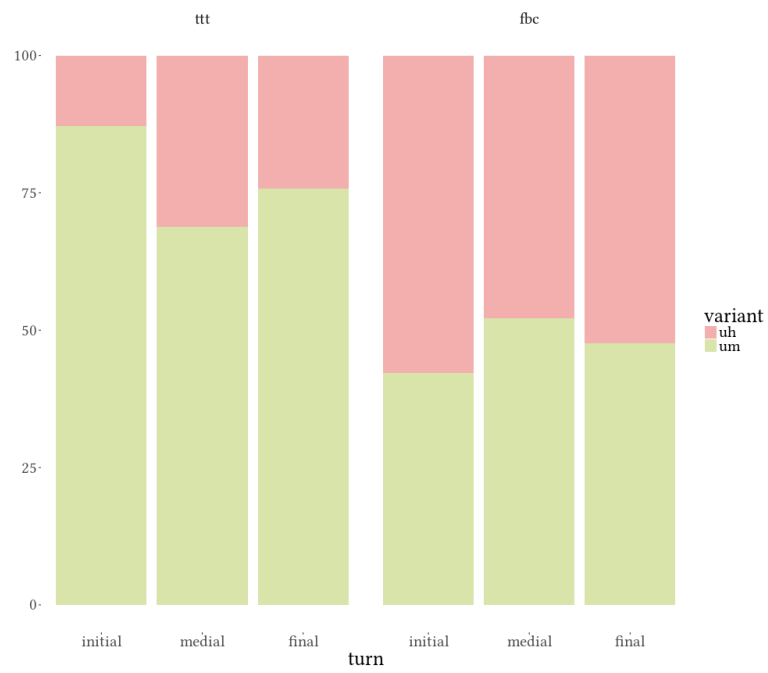


Figure 5.5: Distribution of UH vs. UM by turn position

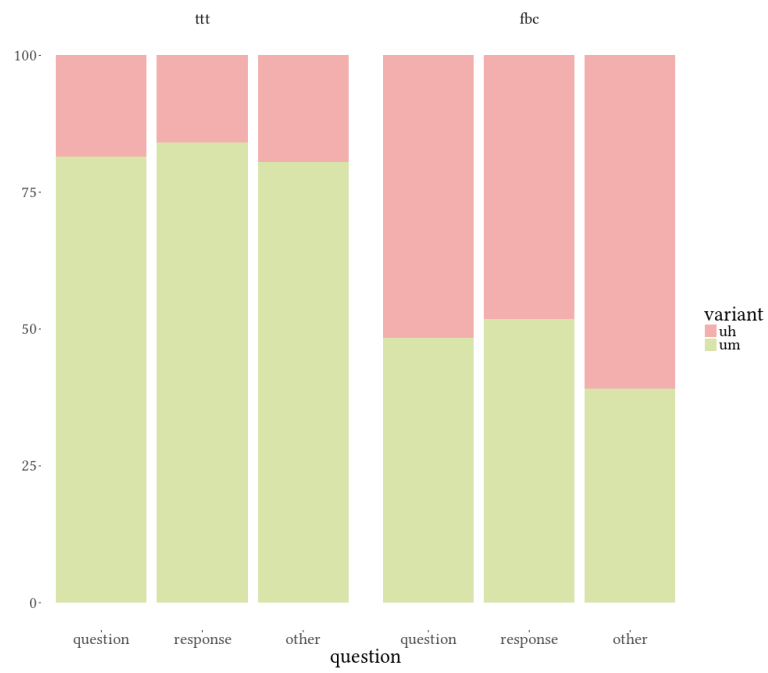


Figure 5.6: Distribution of UH vs. UM by speech act

2016: 45). If UH is simply replacing UM, we should see them trading frequencies—as UH goes up, the use of UM should go down. After all, if UH is simply replacing UM, we do not expect the overall frequency of UHUM to rise, only the proportion of UH. On the other hand, if UH has taken on a new discourse function, we should see UH rising without the equivalent decrease in UM we would expect in a case of replacement.

Figure 5.7 shows the frequency per 1000 words of each variant by year of birth. In the earliest group, UM is substantially more frequent than UH, and as year of birth increases, the relative frequencies of UH and UM converge: by the mid-nineties, there is no clear difference between the relative frequencies of each variant. While this pattern does not exclude the possibility of functional change, it does suggest that UH has not taken on some radically new discourse function.

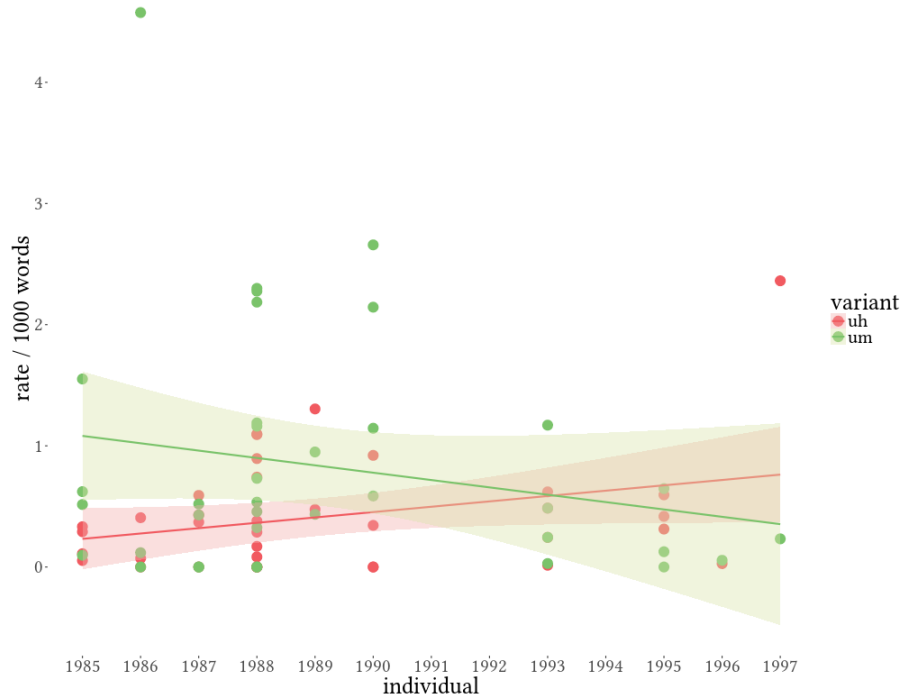


Figure 5.7: Relative frequency of UH vs. UM by year of birth

### 5.3 Multivariate analysis

Table 5.1 shows the results of a generalized linear mixed-effects logistic regression (GLMER) model of the variation between UH and UM. A positive estimate indicates that a given level favours UM; a negative estimate indicates that it favours UH. *Turn position*, *age* and *corpus* were removed from the model during model selection because including them resulted in a worse fit (lower Somers’s *C*, see Tagliamonte & Baayen, 2012); in any case, none were significant when included in the model. I tested several interactions (e.g., message position with turn position), but none resulted in a better fit and none were significant.

Predictor	Estimate	Std. Error	z-value	Pr(> z )		N-UH	N-UM
OVERALL:							
Intercept	-1.09377	0.88238	-1.240	0.21513		538	975
MESSAGE POSITION:							
Initial	<i>reference level</i>					257	640
Solo	-0.11703	0.15801	-0.741	0.45891		211	219
Noninitial	-1.07904	0.23431	-4.605	4.12e-06	***	70	116
YEAR OF BIRTH:							
One-year increase	-0.23665	0.10318	-2.293	0.02182	*		N/A
GENDER:							
Female	<i>reference level</i>					306	668
Male	-0.73256	0.72060	-1.017	0.30935		232	307
SPEECH ACT:							
Non-interrogative	<i>reference level</i>					291	390
Question	-0.07558	0.23329	-0.324	0.74595		53	119
Response	0.39255	0.15053	2.608	0.00912	**	194	466
POLARITY:							
Negative	<i>reference level</i>					83	142
Positive	0.23768	0.19559	1.215	0.22430		455	833
		Random intercept	Variance	Std. Deviation			
		Individual	5.051	2.247			

Table 5.1: Generalized linear mixed-effects regression model of variation between UH and UM with individual as random intercept

Message position, year of birth and speech act are significantly correlated with the realization of UM or UH. Message position is the strongest predictor: non-initial message position strongly favours UH. The next-strongest predictor is speech act: responses to questions favour UM. The weakest significant predictor is year of birth: as year of birth increases, the probability of observing UH increases.

## 5.4 Discussion

As is clear from the data presented in this chapter, there is a change in progress going on in the IM data, but it is headed in the opposite direction from the attested pattern—UH appears to be on the rise, not UM. This can be explained in terms of specialization (Kroch, 1994).

Kroch (1994: 8) argues that competition between members of a *doublet* will lead to one of two outcomes: either one form declines and disappears, or the forms specialize, differentiating in meaning and causing the change to stabilize. Looking again at Figure 5.7, it does not appear that either variant is on a trajectory to disappear—in the most recent data, both variants have approximately the same relative frequency overall, and the slopes are not particularly steep. It is also unlikely that UM would disappear in IM, given its prevalence in the spoken data (Wieling et al., 2016). This points to specialization, and that explanation appears to be consistent with the present results. The data I present in this chapter indicate that UH and UM each have their own contextual niche: UM tends to be used message-initially and in responses to questions, while UH tends to be used message-medially and in non-responses to questions.

Based on this explanation, we can draw a tentative trajectory for the change. Denis and Gadanidis (2018) found that in Ontario farmers born in the late 1800s and early 1900s, UH dominated—the average rate of UM was only 9–16%. We know from Wieling et al. (2016) and Fruehwald (2016) that UM then rose gradually throughout the 1900s and early 2000s, reaching rates as high as 64% in the most recent speakers. At this point, the grammatical system is presented with a pair of forms in competition which are both relatively frequent, and, at least

in IM<sup>1</sup>, the forms begin to specialize and take on separate meanings, leading to the different niches for each variable we see in this study.

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<sup>1</sup>It is as yet unclear whether the same process is occurring in speech.

# Chapter 6

## Discourse function and social meaning

### 6.1 Introduction

The quantitative patterns described in the previous chapter suggest that UH and UM fill different roles in IM. In this chapter, I aim to identify the specific nature of that difference, in terms of both social meaning and discourse-pragmatic function, through close examination of metalinguistic texts (§6.2) and the contexts in which UHUM is used in IM (§6.3).

Accordingly, in doing so I adopt the community of practice framework (Meyerhoff, 2002), with the aim of investigating how UHUM is implicated in computer-mediated discourse (Androutsopoulos, 2006) in one community of practice—specifically, the FBC corpus, in which I am a participant and of which I have firsthand knowledge. This ethnographic knowledge allows me to link the use of UHUM to participants' speech styles, interactional goals and other social factors, which would not be accessible in research with strangers.

I also make use of the concepts of *indexicality*, introduced explicitly to variationist sociolinguistics by Eckert (2008) based on linguistic-anthropological research, and particularly the work of Silverstein (2003) on *indexical order*. In this framework, linguistic signs (such as UH and UM) are held to indicate or *index* various other characteristics, such as demographic categories or stances, which are termed *indexicalities*. This ties in with variationist observa-

tions that certain variants are linked to demographic categories like gender—but as Eckert (2008: 455) emphasizes, “women (and men) are not saying ‘I’m a woman’ when they use a ‘female-led’ change, nor are they saying ‘I’m not a woman’ when they do not. The generalization that women lead in a particular sound change is the outcome of a general statistical result.” In fact, because variables stratify with multiple demographic categories, “their meanings are not directly related to these categories but to something that is related to all of them” (p. 455). This indexical multidimensionality is where Silverstein’s (2003) concept of indexical order comes in: linguistic forms which are associated with a given indexicality are constantly available for reinterpretation, and each new interpretation results in new indexicalities. To use Eckert’s (2008: 463) example, a *first-order* index might indicate that a speaker is part of a given population, such as a social class stratum or a region. Because these populations are subject to social evaluation (by themselves and others), additional indices can arise as speakers orient themselves in relation to these evaluations. For example, a form which indexes a low social class in the first order may come to index solidarity, roughness or crudeness in the second order, which in turn may lead to additional indexicalities<sup>1</sup>. Silverstein (2003) terms these further indexicalities *n + 1th-order indexicalities*.

In the remainder of this chapter, I employ this framework to examine the social and pragmatic meanings of UHUM in practice: the indexicalities that speakers are activating when they use either UH or UM and how they interpret and reinterpret them.

## 6.2 Metalinguistic commentary

Jaffe (2016: 109) puts forward the notion that stance plays a mediating role in “the internal ordering of both indexical fields and indexicalities.” Jaffe demonstrates this by examining a collection of metalinguistic commentary on Whiteness, the *Stuff White People Like* blog. In this section, I examine similar metalinguistic commentary about UHUM and its supposed

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<sup>1</sup>Note that the terms ‘first’, ‘second’, and so on are not intended to necessarily indicate linearity—according to Silverstein (2003: 194), reinterpretations of given indexicalities are already immanent when they are activated by speakers.



functions and indexicalities on Twitter and in the IM corpus.

### 6.2.1 Twitter

The use of UHUM in English on the internet has not gone unnoticed. As one example, John Scalzi (@scalzi), who runs a Twitter account with over 140,000 followers, has tweeted about UM several times; some examples are shown in (8)<sup>2</sup>.

- (8)
- a. I find that starting your a reply to me with “um,” means you really want to say “HEY ASSHOLE,” so don’t be passive-aggressive about it.
  - b. Folks, unless you are actually 14, may I suggest that prefixing “um,” to whatever argument you are about to make is not the effective rhetorical tool you think it is. I usually don’t read past “um” in tweets because my eyes are already rolling in my head.
  - c. [...] I think it’s also clear that I think the tone “um” sets is usually “I’m going to be condescending, snotty and ignorant all at once.” Which, I guess, if that’s what you’re going for? But doesn’t incline me to read further.
  - d. Thesis: Online, when people put “um” before correcting you, “um” is passive aggressive for “hey, you ignorant asshole.” Discuss.

@scalzi identifies UM as “passive-aggressive” (8a), “condescending, snotty, and ignorant” (8c), and juvenile (8b), and in (8d), explicitly identifies it with a specific discourse function: corrections.

Several of the replies to these tweets from his followers push back on this somewhat, as shown by the examples in (9).

- (9)
- a. I tend to use “um” as an indicator that I am typing something I feel awkward typing.

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<sup>2</sup>Thanks to Marisa Brook (p.c. via Derek Denis, February 28, 2018) for pointing me in the direction of these tweets.

- b. “um” for me is “oh jeez I’m really embarrassed about saying this please don’t be mad I thought you ought to know sorry”, honestly.
- c. If I use “um” it generally indicates that I’m unsure about the issue at hand. I use “uh...” to be passive-aggressive.
- d. Certain groups, such as women, are taught that having an opinion is unfeminine and unattractive. Hesitancy, or the “um” verbal tic, is a way of mitigating the strength or forcefulness of our argument.
- e. can it be considered to be a shy, possibly uncertain ‘um’? At least, that’s how I use it.

For these individuals, the indexicality of UM is more complex than just condescension and correction: it could index awkwardness (9a), embarrassment (9b), shyness/uncertainty (9c)/(9e), and can even mitigate face-threat (9d)<sup>3</sup>. (9c) also hints at an indexical difference between UM and UH, where UH indicates uncertainty and UH is passive-aggressive.

Finally, (10) shows some of @scalzi’s responses to replies which challenge the passive-aggressive indexicality of UM.

- (10) a. But you’re not speaking. You have to consciously TYPE “um,” which is different.
- b. Back to the “um” thing: For the folks who say they put it in almost reflexively: You know you can edit things before you post them, yes?
- c. [...] if nothing else, I would like people to think about the fact writing is not speaking.
- d. My point: if you’re putting an “um” in there, be aware it’s a conscious choice to do it, not something that just happens.

For @scalzi, UM is an anomaly because, while it is unconscious in speech, it must be consciously added in written registers<sup>4</sup>.

<sup>3</sup>Note also the explicit connection with women’s speech (c.f. Lakoff, 1973)

<sup>4</sup>While idiosyncrasies in @scalzi’s IM style are not the primary topic of this paper, it is interesting to note

### 6.2.2 IM

Metalinguistic commentary, while not as prominent, also occasionally occurs in the IM data. Extract 6.1 shows one example: Alice invites Tim on a “poke hunt” (a reference to the virtual reality app *Pokémon Go*, which was popular at the time, in which users walked around and searched for virtual animals). Tim, up for a walk but not planning to use the app, replies “Uh sure,” triggering a request for clarification from Alice. Note that Tim’s explanation, and Alice’s acceptance, take the indexicality of UH for granted, as though natural (c.f. Inoue, 2004). This is qualitatively different from the Twitter metalinguistic commentary, wherein @scalzi explicitly asks why the lexical item UM is being used—Alice is rather asking why Tim was indexing what he was indexing (apparently uncertainty/hesitancy), and thus understands and is satisfied by his explanation.

---

1	Alice:	wanna go for a poke hunt with me and andy
2	Alice:	in the afternoon
3	Alice:	:D
4	Tim:	What time
5	Alice:	we’re planning to meet up around 1:30
6	Alice:	idk when
7	Alice:	probably on campus
8	Alice:	;0
9	Alice:	I’m free till 5ish
10	Tim:	<b>Uh</b> sure
11	Alice:	What’s the
12	Alice:	“ <b>uh</b> ”
13	Alice:	for
14	Tim:	The <b>uh</b> is because I probably won’t actually use the app
15	Alice:	oh
16	Alice:	LOL
17	Alice:	its okay
18	Alice:	walking around
19	Alice:	is fun

---

#### Extract 6.1: What’s the “uh” for?

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that he uses UH in tweets frequently and has never made a metalinguistic observation about it—for @scalzi, UM is marked, but UH is not.

### 6.3 UHUM in context

This section takes a closer look at the contexts in which UHUM is used in IM, and how it is used in those contexts. As was found by Tottie (2017: 22) in writing, UHUM in IM tends to mark stance (the majority of tokens are what Tottie, 2017 classifies as *attitude adverbs*, which I refer to simply as stance markers). I divide the analysis into three sections based on different types of stances being taken: epistemic, evaluative, and interpersonal (Du Bois, 2007; Jaffe, 2009; Kiesling, 2009).

#### 6.3.1 Epistemic UHUM: Uncertainty, surprise

A common use for both UHUM variants, employed by virtually all speakers across all three corpora, is uncertainty: speakers use UHUM to indicate that they do not know or are unsure about something. Extract 6.2 illustrates this indexicality of UHUM. It is a long conversation between Tim and Alice in which Tim is at a grocery store, at Alice's request, looking for *mochi* (Japanese for 'rice cake') which they plan to use to make *takoyaki* ('fried octopus'). Tim, unable to find the mochi, repeatedly asks Alice where it is in the store (which she is familiar with), and she, unable to remember, produces both UM and UH several times (lines 2, 3, 12, 13, 25, and 26). Note that both UH and UM are used together in this extract to indicate uncertainty.

Likewise, upon learning new information, both UM and UH can index surprise and shock, as shown in Extracts 6.3 and 6.4. In Extract 6.3, when Tim learns that a mutual friend forcibly fed a female member a piece of chicken at a club social event, he replies first with UM and then with UH to indicate his surprise. In Extract 6.4, when Emily hears that all the members of the executive team left early after an event, leaving Tim to clean up after them, she uses UH to indicate shock (as well as disapproval).

That both uncertainty and surprise can be indexed by both UM and UH alone, and even by both together, suggests that these are among the basic indexicalities of UHUM, and possi-

---

1 Alice: [*sends a picture of rice cake*]  
2 Alice: Something like that  
3 Tim: What aisle lol  
4 Alice: **Uhhhh**  
5 Alice: **Uhm**  
6 Alice: Idk  
7 Alice: LOL  
8 Tim: At [*grocery store name*]  
9 Alice: Just ask  
10 Alice: D:  
11 Tim: Its not in the flour aisle  
12 Tim: Any other ideas  
13 Alice: :(((  
14 Alice: **Uhm**  
15 Alice: **Uhhh**  
16 Alice: What other aisles do they have  
17 Alice: ....  
18 Alice: **Uh**  
19 Alice: Maybe the one next to that  
20 Alice: **Uh**  
21 Alice: Just ask  
22 Alice: One of the workers  
23 Alice: They'll proba know  
24 Tim: I won't  
25 Alice: ;0  
26 Alice: :(  
27 Alice: **Uhm**  
28 Alice: **Uh**  
29 Tim: Its the last thing we need heheheheh  
30 Alice: Go to the aisle next to the one with flour  
31 Alice: No..  
32 Tim: Maybe we'll just leave he he he he he  
33 Alice: We NeED  
34 Alice: Rice  
35 Alice: Cake  
36 Alice: Without mochi  
37 Alice: It's not  
38 Alice: Takoyaki

---

Extract 6.2: Looking for mochi

bly lower-order indexicalities than those to be discussed below. This makes sense based on Tottie's (2017: 19) claim that the functions of UHUM derive from hesitation when planning speech. Uncertainty is closely-linked to hesitation, since in speech, more planning is required to discuss topics with which one is not familiar. Surprise, too, is closely-linked to hesitation—consider the classic image of someone 'lost for words', stammering and producing UHUM upon learning shocking information.

- 
- |    |        |  |
|----|--------|--|
| 1  | Emily: | like i remember at the first practice at the bar she asked me if she should go say hi to him |
| 2  | Emily: | but like if she did that how do you think he would react                                     |
| 3  | Tim:   | SHE WANTS ME BACK  |
| 4  | Emily: | at [ <i>bar</i> ] at [ <i>club social event</i> ] he like fed her a peice of chicken         |
| 5  | Emily: | by just like   |
| 6  | Tim:   | <b>Um</b>  |
| 7  | Emily: | shoving it in her mouth  |
| 8  | Emily: | lmao   |
| 9  | Alice: | :/   |
| 10 | Tim:   | <b>Uh</b>  |
| 11 | Alice: | if he can't handle being around her  |
| 12 | Alice: | he needs to stop being around her  |
- 

Extract 6.3: He like fed her a piece of chicken

- 
- |    |        |  |
|----|--------|--|
| 1  | Tim:   | All the execs left without cleaning up the table+chairs so I had to do it... |
| 2  | Emily: | <b>Uhhhh</b>   |
| 3  | Emily: | What   |
| 4  | Emily: | The  |
| 5  | Emily: | Fuck   |
| 6  | Emily: | Even Sam?  |
| 7  | Emily: | Wtf  |
| 8  | Emily: | HOW  |
| 9  | Emily: | WHY  |
| 10 | Emily: | WOULD THEY JUST LEAVE  |
| 11 | Emily: | HUH  |
- 

Extract 6.4: All the execs left

### 6.3.2 Evaluative UHUM: Disapproval, concern

UHUM can also be used to indicate the speaker's evaluative stance: their opinion regarding a stance object. Both variants convey a negative evaluation, but the specifics depend on which variant is used. UM indicates a somewhat mitigated/concerned negative evaluation, whereas UH indicates a strongly disapproving negative evaluation.

For example, in Extract 6.5, Tim uses UM to (jokingly) negatively evaluate Emily's excessive drinking, but frames it as a concern rather than as a criticism (by giving advice rather than condemning, and by emphasizing the possible negative effects of drinking on her liver). Similarly, in Extract 6.6, Emily, who has a foot injury and can't practice before a big women's *shiai* 'tournament', evaluates the prospect of returning to practice early negatively, out of concern for her health, using UM.

- 
- |   |   |
|---|---|
| 1 | Emily: I've been drinking               |
| 2 | Emily: Since Friday                     |
| 3 | Emily: Last week                        |
| 4 | Emily: I drank from Wednesday to Sunday |
| 5 | Tim: <b>Um</b>                          |
| 6 | Tim: You might wanna                    |
| 7 | Tim: ease up on the ol liver there      |
- 

#### Extract 6.5: Drinking

In contrast, in Extract 6.7, Alice and Tim jointly negatively evaluate how the executive team of their club wasted money by changing the venue of a social event at the last minute (causing them to lose their deposit), and Alice uses UH to indicate disapproval. This coincides with the use of the reflexive *themselves*, emphasizing that it is the executives' fault that the money was wasted. Similarly, in Extract 6.8, Tim negatively evaluates Jeff's statement that his brother collects "Nazi photos," and, using UH, suggests that his brother may in fact be a Nazi if he collects photos of Nazis.

To summarize, while both UM and UH can index negative evaluation, the specific nature of that evaluation is dependent on which variant is used: while UM somewhat mitigates the negative evaluation and tinges it with concern, UH indicates a strong, disapproving negative

- 
- 1 Emily: Rip that cut on my foot  
 2 Emily: Is infected  
 3 Emily: .....  
 4 Emily: I have to get it freezes  
 5 Emily: With a needle  
 6 Tim: Well shit  
 7 Tim: Do you know how long it's gonna take to heal?  
 8 Emily: He said stay off for a week  
 9 Emily: There was plastic and splinter in it  
 10 Emily: And infection, I couldn't bend my toes LOL  
 11 Emily: Aw man :(  
 12 Emily: So sad  
 13 Emily: No practice before women's shiai  
 14 Emily: I'm gonna die  
 15 Tim: You're sure you won't be OK by thurs or fri?  
 16 Emily: **Ummmm** I don't rilly wanna risk it  
 17 Emily: He said the cut isn't deep but he had to go in deeper to get the infection out  
 18 Emily: He said if I do stuff it would just slow the healing time
- 

## Extract 6.6: Foot injury

- 
- 1 Tim: he said they spent \$7000 on [*event*]  
 2 Alice: 1/7th on the venue change :)  
 3 Tim: lol yup  
 4 Alice: :/  
 5 Tim: apparently it was \$5000 for [*new venue*]  
 6 Alice: **uh**  
 7 Alice: so  
 8 Alice: like  
 9 Alice: they just wasted money themselves
- 

## Extract 6.7: Wasted money

- 
- 1 Jeff: You know, you remind me of my brother.  
 2 Jeff: Except he collects Nazi photos instead of communist russia photos  
 3 Tim: **Uh**  
 4 Tim: Is your bro a nazi  
 5 Jeff: its like  
 6 Jeff: the two ends of the spectrum
- 

## Extract 6.8: Nazi photos



evaluation.

### 6.3.3 Interpersonal UHUM: Disalignment, politeness, face-management

Both UH and UM play crucial roles in managing speaker position and alignment. For instance, UH is commonly used to indicate disalignment, as in Extract 6.9, wherein Jeff and Tim criticize a third, nonparticipant member of their martial-arts club for not showing enough respect to his seniors and instructors. Note the use of UH by both participants (lines 10 and 12) to indicate disalignment with the stances of disrespect they cite.

---

1	Jeff: Honestly
2	Tim: Dude he's always been like this
3	Tim: It's not new
4	Jeff: Yeah
5	Tim: Just more visible
6	Jeff: He's just open about it now
7	Jeff: WHY DOES [ <i>club</i> ] HAVE TO BE FILLED WITH LITERAL PIECES OF SHIT
8	Tim: I remember he used to say shit like he didn't
9	Tim: Respect any of his sensei
10	Tim: And I was like <b>uhh</b>
11	Jeff: "Oh Melissa thinks she's hot shit just cause she's been practicing longer and started this club"
12	Jeff: <b>UHHHHHHHH</b>
13	Jeff: LITERAL WORDS TO COME OUT OF HIS MOUTH

---

Extract 6.9: Literal words to come out of his mouth

In sharp contrast, UM is typically used to position the speaker as polite and considerate, as in Extract 6.10, in which Anna confesses to Tim that she accidentally deleted his save file in the video game *Chrono Trigger*. Anna uses UM (which she spells ⟨uhm⟩) on lines 1 and 3 to take a contrite, apologetic stance, almost as though she is working herself up for her confession. Anna uses UM to take a similarly polite stance in Extract 6.11, in which she reminds Tim that he has left the rice cooker on. Note that her initial message, prefixed with UM, uses the passive (*the rice cooker is super hot, it was still in keep warm mode*) and does not specify an agent. Further, in her final message, she uses the cohortative *let's* rather than the imperative. This indicates that she is avoiding holding Tim directly responsible for the action;

rather than accusing him of making a mistake, she mentions it obliquely, mitigating the face challenge. While UM does not index all of these things on its own, it is a crucial component of this careful/tactful stance. Note that in both these cases, UH would be infelicitous here—or would indicate a different, more casual and less tactful reading.

---

1	Anna: <b>Uhm</b>
2	Anna: I accidentally did something really terrible T.T
3	Anna: <b>Uhm</b>
4	Anna: I accidentally overwrote your save file in Chrono trigger ....T.T
5	Anna: I'm really sorry :(
6	Anna: Arrgghh I realized like a second after I did it but it was too late x.x
7	Anna: :(
8	Tim: Oh DW [= don't worry] about it lol
9	Tim: I was only like an hour or two in

---

Extract 6.10: *Chrono Trigger*

---

1	Anna: <b>Uhm</b> , the rice cooker is super hot cuz it was still in keep warm mode o-o
2	Tim: Holy fuck sorry
3	Anna: It's okay, let's just be careful next time o.o

---

Extract 6.11: The rice cooker is super hot

Anna also makes use of UH, as shown in Extracts 6.12 and 6.13. In Extract 6.12, Anna explicitly contradicts Tim's suggestion that her sleeping habits are normal, and this more-disaligned, higher-investment stance is marked by the use of UH. In Extract 6.13, Anna employs UH sarcastically after Tim asks a question whose answer is obvious. The stances she takes using UH are less tactful and less mitigative than the stances shown in Extracts 6.10 and 6.11.

Extracts 6.14 and 6.15 show a similar dichotomy in Alice's speech. In Extract 6.14, she tentatively asks if she can host a party at someone else's apartment using UM, whereas in Extract 6.15, she uses UH along with *hello* to strongly contradict an assertion that Adam didn't treat his ex-girlfriend "like a thing" (line 2).

- 
- 1 Anna: well, my parents are like  
 2 Anna: “now you just have to start eating healthier and sleeping healthier”  
 3 Tim: LOL  
 4 Tim: sounds pretty demanding  
 5 Anna: yeah D:  
 6 Tim: Well, your sleeping habits don’t seem that bad to me  
 7 Anna: **uhhhh**...really? x.x  
 8 Anna: at one point last semester, I was sleeping around 4/5AM every night .\_.  
 9 Tim: It seems like you get enough sleep, just at late times
- 

## Extract 6.12: Sleeping habits

- 
- 1 [At 3am the previous night, Anna had texted Tim that she was having trouble sleeping.]  
 2 Tim: By the way, were you having trouble sleeping last night? ><  
 3 Tim: I was really touched when I woke up and saw your text  
 4 Anna: **uhhhh** .\_.  
 5 Anna: No, I was just sleep texting.  
 6 Tim: Whoa what  
 7 Tim: Literally?!  
 8 Anna: Lol no  
 9 Tim: Oh  
 10 Anna: That’d be amazing. o.o
- 

## Extract 6.13: Sleep texting

- 
- 1 Alice: Hi Tim :D **uhm** this is a bit random but if we were to have takoyaki[\*] party, would you mind having it at your place? Since you have the mobile gas burner (convenient) and Anna will know the ppl attending ([club] peeps) , I don’t want my third roommate to feel uncomfortable by doing it at my place .-.  
 2 Tim: Of course I don’t mind  
 3 Alice: Oh wow thanks !! :DDDDDD
- 

## Extract 6.14: Takoyaki party

- 
- 1 Adam: how did i treat her like a thing  
 2 Alice: **uh** hello  
 3 Alice: you’ve been trying to change her mind  
 4 Alice: trick her into liking you back again
- 

## Extract 6.15: Uh hello

### 6.3.4 UHUM in quotations

Campbell-Kibler (2007) has demonstrated that speakers associate sociolinguistic variants (viz., [ɪn] vs. [ɪŋ]) with various social associations (e.g., intelligence, articulateness). In this section, I come at these associations from the opposite direction: I aim to identify these social meanings by examining what types of people and what contexts people attribute each variant of UHUM to in quotations. In particular, UH is commonly used in quotations to indicate unintelligence, nonfluency, ignorance, &c. on the part of the individual they are quoting. Three such cases are shown in (11).

- (11) a. msperry (TTT):  
           she was like “**uhh...uhhh**...well that’s why god created diseases and such” ..or something to that effect
- b. Alice:  
           My Japanese is garbage // Rip // Can’t do polite words // I was like “**Uhhh**” “**ahhh**”
- c. Anna:  
           apparently a lot of people have been asking my parents if I have a boyfriend and my mom replies like “**uh** there’s this boy whose close with her” or something . . .

In (11a), the speaker quotes a member of their class who they disagree with, and prefixes the quotation using UH to portray her as unintelligent. In (11b), Alice self-deprecatingly describes her Japanese ability as “garbage” and then quotes herself using UH and *ah* to indicate nonfluency—as though she was struggling or unable to find the right “polite words.”<sup>5</sup> In (11c), Anna quotes her mother, who she frames as not understanding her relationship with her boyfriend (instead describing him as “this boy whose close with her”) and prefixes the quotation with UH. In all of these cases, UH is used in quotations to construe the individual being quoted as unintelligent, nonfluent or ignorant.

<sup>5</sup>Japanese has a separate, more formal set of lexical items, known as *keigo*, lit. ‘respectful language’, which Alice is not familiar with using having only used Japanese with close family and friends.

Crucially, UM is not found in quotations at all in the FBC corpus, and in the TTT and TEEN corpora it is used to index awkwardness or discomfort, rather than unintelligence, as shown in (12), indicating that it does not share the unintelligent indexicality.

- (12) a. and he got ID'd in // Chicago and he was like 'umm... k...' and they told him that they even ID seniors (M/1985)
- b. i haven't told my parents about [*breaking up with her boyfriend*] yet:\$ they have been askign me about the wedding and im like.. um... uh huh.... but i dont want to tell them (F/1986)

## 6.4 Discussion

### 6.4.1 The indexical field

In §6.1, I identify various indexicalities for UHUM, some associated with UH, some with UM and some with no strong association with either variant. These are summarized in Table 6.1. Crucially, while not all of these indexicalities are directly exploited by all members of the community of practice—especially those who have fewer tokens in the corpus—and this data cannot determine if all participants explicitly understand these indexicalities, the fact that their use never results in miscommunications or gaps in understanding indicates that they are part of the community's shared repertoire.

UH	both	UM
disapproving	hesitant	apologetic
disaligned	uncertain	mitigative
mocking	surprised	polite
unintelligent		awkward
		concerned

Table 6.1: Indexicalities for UHUM

Given this varied list of indexicalities, running the gamut from politeness to mocking,

disalignment to mitigation and concern to unintelligence, the question arises: where do these indexicalities come from, and how are they linked?

Following Moore and Podesva (2009: 459), who related the social meanings of tag questions to the core indexicality of “conducive,” I propose that all of the indexicalities in Table 6.1 are related via a core “hesitant” indexicality. I model the core indexicality as “hesitant” because, as I discuss in §6.3.1, Tottie (2017: 19) makes a compelling argument that hesitation is the root of UHUM in writing, and because in my data, both UH and UM are used to index hesitation, suggesting that it is a basic indexicality of UHUM, and not particularly associated with either variant. In Silverstein’s (2003) terms, *hesitant* is the  $n$ th order indexicality, and the others are  $n + 1$ th order,  $n + 2$ th order, &c. indexicalities, activated through association with lower-order indexicalities. Following Eckert (2008: 454), I model these indexicalities as arranged in an *indexical field*: a “constellation of ideologically related meanings, any one of which can be activated in the situated use of the variable.”

Figure 6.1, modelled after Moore and Podesva’s (2009: 478) Figure 10, shows the indexical field for UHUM. The core indexicality, hesitation, is depicted in the box at the centre of the figure. The border in the centre divides the field between indexicalities for UH and indexicalities for UM, but note that the border is permeable—it is possible for UH to index meanings on the right side of the figure, and vice versa. Increased distance from the border roughly indicates further ideological distance from the original indexicality and increased association with a particular variant—the “uncertain” indexicality, for example, is more closely related to the core indexicality, and thus can be activated by either variant, while the “unintelligent” and “polite” indexicalities are constructed based on lower-order indexicalities, and hence ideologically further from both the core indexicality and each other<sup>6</sup>. When a speaker activates one of these higher-order indexicalities, such as “mocking”, they are drawing on not only the association between UH and mockery, but the ideological connection between uncertainty

<sup>6</sup>I do not intend to imply that indexicalities which are closer to the edge of the field are necessarily peripheral or less salient to speakers, only that they are more specialized to a particular variant and are the result of more “ideological move[s]” or “sidestepping[s] within an ideological field” (Eckert, 2008: 484) from the core indexicality than those closer to the center.

and unintelligence, which is what enables mockery in the first place. In fact, individual uses of UHUM rarely activate only a single meaning. For example, Tim’s use of UH in line 10 of Extract 6.9 activates not only the primary “disaligned” indexicality but also the “disapproving” and “surprised” indexicalities, all of which contribute to the overall meaning of UH in context.

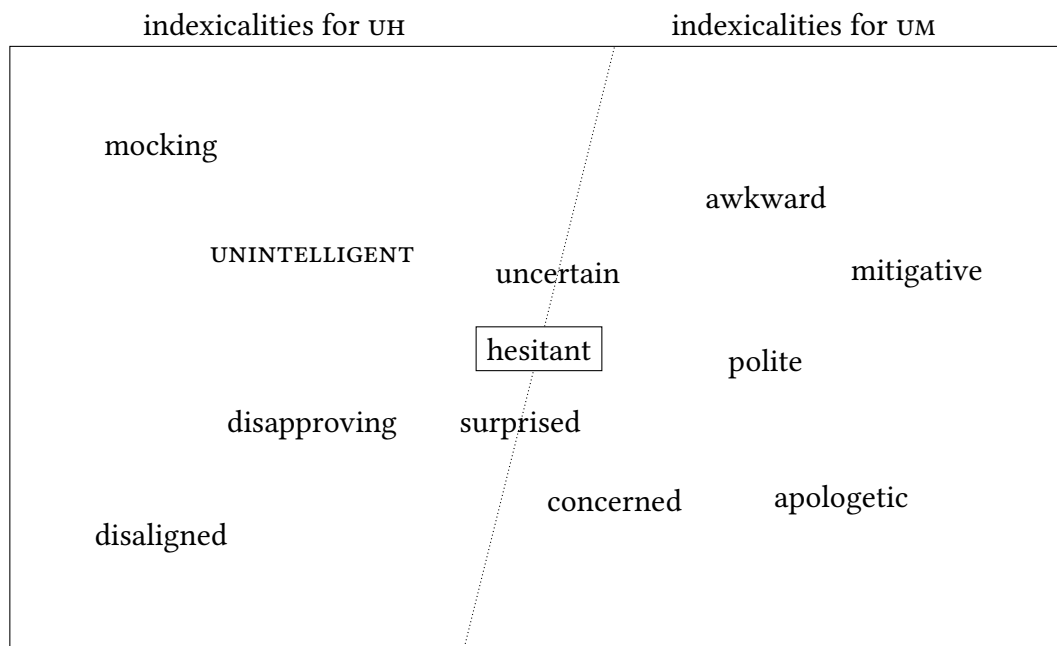


Figure 6.1: Indexical field for UHUM

### 6.4.2 Styling through stance

Note that all of the indexicalities in Figure 6.1, other than “unintelligent,” are interactional—they refer to stances and temporary characteristics. We would expect accretion of these stances over time to result in associations with permanent characteristics and social types (Jaffe, 2009; Moore & Podesva, 2009). For instance, we might expect that extensive use of UM might become a marker of a polite personality given its association with politeness. However, it is difficult to speculate about what these might be, now or in the future, because speakers do not appear highly aware of their or others’ use of UHUM. Metalinguistic commentary is rare and never touches upon permanent characteristics.

However, the high degree of individual variation in the data suggests that different speak-

ers do habitually use UHUM and its associated stances in different ways. For example, Anna, who uses UM much more often than UH (33.8% UH), is engaged in the construction of a more tactful, more polite stance than Emily, who uses UH near-exclusively (91% UH). Furthermore, for interlocutors familiar with Anna's IM style, her high UM rate is likely to affect the interpretation of UH in the cases where she uses it, along the same lines as Jaffe's (2009: 19–20) *vous*-heavy French acquaintance, whose *tu* carries a more intense intimacy. Anna's use of UH for sarcasm and disalignment in Extracts 6.12 and 6.13, for example, is more out-of-the-ordinary, and thus more intense, than if Emily had produced the same tokens.

### 6.4.3 Specialization

An examination of the indexicalities in Figure 6.1 shows that in this community of practice, and potentially beyond it, UH and UM each have a qualitatively different overall connotation: UH is coarse, casual and insensitive, being used for overt mockery, disapproval and disalignment, both seriously and ironically; UM is careful, polite and sensitive, being used for apology, face-management and mitigation.

These different functions are consistent with my suggestion in the previous chapter that UH and UM are specializing: just as each variant has its own contextual niche, it also has a distinct set of functions and social meanings. While it remains to be seen whether the indexicalities in this community of practice hold across larger groups of speakers, in different mediums and in different contexts, the stark differences between UM and UH shown here make it clear that a new standard of use for the two variants, with delineated roles for each, is in effect in the FBC corpus. For discussion of the connections between the indexicalities identified here and the contextual niches identified in previous chapters, see §7.2.

### 6.4.4 UM and women's speech

The foregoing analysis has identified a connection between UM and many functions and indexicalities which are ideologically associated in much of the English-speaking world with



women's speech, including face management, politeness, and contrition (Lakoff, 1973; Ochs, 1992). Metalinguistic commentary on Twitter also identifies UM with both women's speech and mitigation, as illustrated in (9d), which I have reproduced as (13) below.

- (13) Certain groups, such as women, are taught that having an opinion is unfeminine and unattractive. Hesitancy, or the “um” verbal tic, is a way of mitigating the strength or forcefulness of our argument.

This connection is in line with the finding that women favour UM in spoken English as part of a change in progress (Fruehwald, 2016; Wieling et al., 2016). Under the hypothesis that the divergence of the two variants is due to specialization as a result of the rise of UM, it may be the case that as a result of women's increased adoption of the incoming form, it has become associated with the stances that women are ideologically-expected to take.

# Chapter 7

## General discussion

### 7.1 Connections with the literature on UHUM

While this study has focused on UHUM in IM, it is closely connected to several recent quantitative studies of UHUM in speech (Fruehwald, 2016; Tottie, 2016; Wieling et al., 2016), as well as Tottie's (2017) study of UHUM in writing. There are several important issues to address arising from these studies.

First, the rate of UHUM in my data is much lower than in the spoken corpora (see Table 4.1 on Page 22), but much higher than in journalism, in which the frequency in recent years is around 7.5 UHUM per million words (0.0075 per thousand words) (Tottie, 2017: 9). In my view, the best explanation for these differences is that they are due to the differences in how UHUM is used across different registers. In speech, UHUM is used as a planner (Tottie, 2016), whereas in journalism (Tottie, 2017) and IM, UHUM is used much less frequently because it is used as a stance marker. But why precisely is UHUM used differently in different registers? I cannot answer this question definitively, but I speculate that it is due to the different communicative needs associated with each register. In speech, utterances are developed in real-time—speakers plan their utterances as they produce them, necessitating the use of planners such as UHUM to help structure discourse. Since all utterances require

some degree of planning, the frequency of UHUM in speech is thus unsurprising. In writing and IM, utterances are produced in larger or smaller chunks, obviating the need to use planners—the writer or IMer has time to plan the content of their text before submitting or sending it. Furthermore, while in speech stance can be communicated using body language, volume, pitch, prosody and other paralinguistic phenomena, in writing and IM, only orthographic and syntactic information is available. Thus writers and IMers use UHUM to make up for this missing information. Given this analysis, the disparity between IM and journalism is easily explained: journalism is more formal than IM and has less need for stance marking in the first place, especially given much journalistic writing emphasizes objectivity.

The proportion of UH vs. UM in my data, and more specifically the trend over time, is also strikingly different from previous studies. While my data shows a clear increase in UH, Tottie (2011), Fruehwald (2016) and Wieling et al. (2016) all found a clear increase in UM over time. It is not clear why the IM data is an exception. However, if UM and UH are indeed specializing, as I propose in this paper, this specialization may have been triggered by the rise of UM throughout the 20th century—once UM reached a certain frequency, it began competing with UH, leading to specialization (see also Chapter 5). Further work is necessary to determine the accuracy of this hypothesis, however. I discuss the specialization analysis further in the following section.

## 7.2 Integrating the quantitative and qualitative results

Both the quantitative and qualitative results indicate that UM and UH are specializing in IM. Quantitatively, we have seen that UM and UH appear in different contexts, and qualitatively, they appear to have different social meanings. Given these two sets of results, the natural question to ask is whether and how the results are related. In this section, I propose that the contexts that are correlated with each variant are related to each variant's indexicality and

pragmatic function<sup>1</sup>.

First, note that strongest context favouring *UH* is non-initial message position. Recall from Chapter 4 that this is also one of the rarest contexts for *UHUM* to appear in in general—the vast majority of *UHUM* tokens are message- and turn-initial. This means that while *UHUM* is typically an initial- or solo-position stance marker, it is occasionally used in medial/final position, and when it is, it is usually realized as *UH*. Some characteristic examples of *UH* in medial/final position are shown in (14):

- (14) a. ok, i am trying to play that game.. **uh** Hearts... right (F/1986)  
 b. Not until **uhh** // Let me check (M/1995)

Note that these are highly speech-imitative: the speaker interrupts their own message using *UH* to indicate uncertainty (14a) or lack of knowledge (14b) about the following information. These meanings are close to the core meaning, hesitation, as I have illustrated in Figure 6.1. In contrast, when *UM* is used in medial/final position, it is coloured by the polite/mitigative connotation associated with that variant, as shown in (15):

- (15) a. ...did his family member, **um**... pass away... ? (F/1993)  
 b. do you **uum** still want [to see] me today? (F/1993)

The tendency for *UH* to be used in these contexts with a more basic meaning suggests that it is in a sense the *default* variant of *UHUM*: the less-specialized, more basic variant. This also ties in with the scope that *UH*'s contextual niche allows it to take: *UH* is used more frequently in medial position than *UM* is because in medial position, hesitation or uncertainty can scope over a single word or phrasal element (as in word-search or uncertainty about a certain fact) whereas politeness and concern tend to scope over the entire utterance.

The prevalence of the phrase *be like uh* is further evidence for this notion. To *be like uh* (a

---

<sup>1</sup>Unfortunately, I am not in a position to determine whether the quantitative or qualitative patterns arose first.

combination of the quotative *be like* and UH) is to be hesitant, surprised, or otherwise unable to produce an utterance. Some examples are shown in (16).

- (16) a. I was like “uhhhhhhhhh” (F/1987)  
 b. if you were ever jealous of someone i dated for a week three years ago i would be like “uhhhhhhhhhhhhhhhhhhhhhhh” (M/1985)  
 c. if one of my brothers friends asked me out, I would definately be like “uhhh” (M/1985)  
 d. in fact if i did they’d be like // uh what (M/1995)

Again, while UM is occasionally found in these contexts, it is always coloured with awkwardness or sensitivity, as in (12), reprinted as (17) below.

- (17) a. and he got ID’d in // Chicago and he was like ‘**umm...** k...’ and they told him that they even ID seniors (M/1985)  
 b. i haven’t told my parents about [*breaking up with her boyfriend*] yet:\$ they have been askign me about the wedding and im like.. **um...** uh huh.... but i dont want to tell them (F/1986)

If UH is the more basic, less-specialized variant, though, it remains to explain how it developed its own specialized meanings—disapproving, disaligning, unintelligent, mocking—as I have extensively described in Chapter 6. I speculate that UH developed these coarser meanings as a result of its closer association with hesitation, which itself has a negative connotation<sup>2</sup>. Thus the negative, coarse and confrontational connotation of UH can be modelled as an indexical move from hesitation to unintelligence, and from hesitation to disapproval.

---

<sup>2</sup>For example, there are countless articles online designed to help people speak without hesitating, e.g. <https://www.wikihow.com/Talk-Without-Hesitation-and-Feel-Confident>.

### 7.3 Variants of UHUM or different markers altogether?

The ongoing specialization of UH and UM raises the issue of whether the two variants can be considered variants of the same variable. As I briefly discussed in §3.4, the answer depends on how we define a discourse-pragmatic variable.

If our definition is based on functional or semantic equivalence, then based on the data presented in this paper, UH and UM cannot be considered variants of the same variable, at least in all contexts. As I have outlined in Chapter 6, UH and UM make qualitatively distinct contributions to discourse—UM is often mitigative, while UH is not. In Extract 6.9, for example, Tim’s contribution on lines 8–10 (reproduced as (18) below) is not felicitous (with the same meaning) if UH is replaced with UM, as in (18’).

(18) I remember he used to say shit like he didn’t // Respect any of his sensei // And I was  
like **uhh**

(18’) I remember he used to say shit like he didn’t // Respect any of his sensei // And I was  
like **umm**

Whereas UH in (18) indicates disagreement, UM in (18’) indicates unease or awkwardness. Thus unlike a standard sociolinguistic variable, UH and UM are not propositionally or functionally equivalent<sup>3</sup>.

Using Pichler’s (2010) concept of structural similarity (see §3.4), on the other hand, there is still a case for considering UH and UM as variants of one unified UHUM variable. First, both variants are single-word constructions which do not derive from bleached lexical items but from apparently non-lexical markers in speech. Second, they appear in the same syntactic contexts<sup>4</sup> and, importantly, take the same scope<sup>5</sup>. While UH is more likely to appear medially

<sup>3</sup>Unless we consider stance-marking, broadly speaking, as a function—but that definition would be too broad, as it would include all stance markers, even those clearly unrelated to UHUM, in the envelope of variation.

<sup>4</sup>Note that I am agnostic on what exactly the syntactic position of UHUM is (e.g., what node or what head it merges on, &c.).

<sup>5</sup>Thanks to Heike Pichler (p.c., June 7, 2018) for bringing the consideration of scope to my attention.

or finally than UM is, both variants occur most frequently in initial position, where they scope over the entire clause. When they appear in medial position, they scope over the immediately following phrasal element. When they appear in solo or final position and another message follows, they scope over the following message. Finally, when they appear in solo or final position and another message does not follow, they appear to scope over an elided or unsaid following message. Such a structural analysis captures the intuitive similarity between the two variants and also aligns with the psycholinguistic literature, which has historically treated the two variants as separate from other fillers (see §3.4).

## 7.4 Conventionalization in IM

The patterns I have shown in this paper indicate a developing convention of use for UHUM in IM, one that may be different from the spoken language. The fact that the effect of *speech act* is greater in the most recent corpus than in the earlier corpora is evidence that this conventionalization is still underway (see Figure 5.6 on page Page 37). But why has this convention developed in this medium? I would argue that the use of UHUM as a stance marker in IM reflects some of the constraints of this text-based medium.

While much has been made of IM's similarity to speech (e.g., Crystal, 2001; Tagliamonte, 2016; Tagliamonte & Denis, 2008), it is fundamentally different in that several key types of information about the interaction are missing: interlocutors do not have access to visual information (including facial expressions and body language) or audio information (such as choice of phonological variants, intonation, stress, rhythm and volume). Various types of markers are used to fill in this information, the most famous being emoticons and emoji, but also including discourse-pragmatic markers like *lol* (Tagliamonte & Denis, 2008), *hm* and, of course, UHUM. Dinkin (2014) has even described the use of spelling to mark the use of the nonstandard phonological variant [ɪn] rather than [ɪŋ]. UHUM's use as a stance marker in this medium is thus in accordance with the requirements of the medium itself—it provides

pragmatic, interpersonal information about how the interlocutor feels about the utterance, information that is harder to access without the audio and visual channels. It is likely that other “nonlexical” markers, like *hm*, *mm* and others are also being used in similar ways.



# Chapter 8

## Conclusions

### 8.1 Remaining questions

A number of interesting issues arise from the results of this paper which I am unable to answer definitively and will have to be left to future work.

First of all, it remains unclear whether the quantitative and qualitative patterns observed in this paper also exist in the spoken language. Despite the differences between IM and speech, it does not seem that speakers maintain *wholly* different grammars for each medium—there is spillover, as in the case of *lol*, which originated online but is now sometimes used in speech and in other media (“Lol,” 2018). Unfortunately, the IM-only data I have presented here does not put me in a position to determine to what degree speakers’ use of UHUM is similar between speech and IM. However, Tagliamonte and Denis (2008) also collected spoken data from the same individuals whose IM data constitutes the TTT and TEEN corpora. In future work, an examination of this data, as well as the collection and examination of data from the speakers in FBC, will allow me to compare the quantitative and qualitative patterns of use of UHUM for each speaker as they cross between speech and IM and identify similarities and differences.

Second, I predicted in §7.4 that other “nonlexical” markers (e.g., *hm*, *argh* and *ugh*) are

likely being used in similar ways to UHUM in IM. I plan to explore this matter further in future work (and encourage others to do the same), with the goal of determining whether these markers constitute their own class and/or behave differently (in terms of function, structure or development) than other discourse markers. The vast majority of work on discourse markers in English to date has been on markers which derive from bleached lexical items, like *I-mean* and *you-know*, but IM offers an ideal testing ground for exploring the nature of apparently nonlexical markers, which should broaden our understanding of discourse-pragmatic variation as a whole.

Finally, the numerous indexicalities I have laid out in Chapter 6 are all inferred based on the contexts in which they occur and the reactions of other participants to them. However, future work should seek to confirm these indexicalities (and potentially identify others) using an experimental design along the lines of Campbell-Kibler (2007). An experiment in which speakers are presented with speech or simulated instant messages containing variably UH, UM or neither, in conjunction with guises for different speakers, and asked to answer questions about the speaker's tone, their attitude and their personal characteristics (friendliness, condescension, age, gender, &c.) would shed a great deal of light on the social meanings of these variants and the degree to which they differ.

## 8.2 Conclusion

This study has illustrated the quantitative and qualitative patterns associated with variable UHUM. Using a mixed methodology incorporating both quantitative and qualitative methods, I have shown that contrary to claims about UHUM as a symptom of delay or a filled pause, both UH and UM are, at least in IM, discourse-pragmatic markers which provide information about speaker stance. I have also shown that the variants exist in separate statistical niches and that, broadly speaking, UH has a coarser, more disaligning connotation than UM does. Stancetaking devices like this are especially crucial in a medium like IM, in which speakers

do not have access to body-language and prosodic information.

Crucially, these insights would not be possible without the use of the mixed qualitative–quantitative methodology. While quantitative methods can identify overall patterns, like constraints on message position, identifying the subtle indexicalities revealed in Chapter 6 requires careful examination of language in context. This is particularly true in cases like the present work, in which individual variation is so dramatic—the rate of UH per each individual ranges from 0% to 100%. Knowledge of the stances and attributes indexed by each variant allows us to explain this individual variation in terms of styling: speakers who use UH more often are constructing a coarser and less sensitive style than speakers who use UM more often. My results here constitute further evidence that individual variation depends not just on essential identity categories like age, gender and occupation, nor on attention paid to speech (Labov, 1972), but micro-elements of talk such as stance, highlighting the necessity of expanding the methodological toolbox of variationist sociolinguistics in order to capture the true nature of variation.

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