Stability and change in (ing)

Ethnic and grammatical variation over time in Australian English

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Work on variable (ing) has highlighted its long-term stability and shared conditioning across English varieties. Here, we ask whether similar stability and conditioning holds in Australian English over time and across ethnicity. The data come from sociolinguistic interviews with 204 Australians stratified according to age, gender, social class and ethnicity, drawn from the *Sydney Speaks* project. Analyses of 13,000 (ing) tokens reveal very low alveolar rates, but generally similar conditioning to that of other English varieties, with the exception of word class, for which variability was initially largely limited to verbal tokens before extending to include the pronouns *something* and *nothing*. Ethnic differences are evident in rates of use: Italian Australians evince higher, and Greek and Chinese Australians lower, rates of [n]. These differences are accounted for by class affiliations, suggesting that (ing) may be an ideal variable for considering the interplay between social class and ethnicity.

Keywords: (ing), social class, ethnic variation, real- and apparent-time, language change, stable variable, Australian English

1. Introduction

One of the most widely studied sociolinguistic variables is (ing), for which the alternation between velar and alveolar nasals (e.g. *going*/*goin*') has been showcased as a paradigm of stable variation. Across the English-speaking world, a consistent and long-lasting favouring of the alveolar over the velar variant in casual speech, by men, and by speakers in lower socio-economic brackets has led to the observation that "[l]ong-term stability appears more clearly in the case of

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(ing) than for any other sociolinguistic variable" (Labov 2001: 87) (see overview in Hazen 2006).

Although (ing) has been examined in many varieties of English, much less is known about its patterning in Australian English. Following a flurry of studies in the 1970s and 1980s (Shopen 1978; Shnukal 1982; Horvath 1985: 98–103; Lee 1989), it has been largely ignored, appearing in only one recent work, as part of a general overview of Australian folk linguistics (Penry Williams 2020: 129–135). These studies report much lower rates than those reported for British and American English varieties, but similar social patterning and similar indexicalities, in that the alveolar variant is considered "uneducated" or "lazy" (Shopen 1978: 49), and associated with "ocker" or "bogan" speakers, terms representing stereotypical working-class Australians (Penry Williams 2020: 135, 158–170).

Given this consistency, what more is there to know about this variable? On the one hand, the Australian context puts the stability of (ing) variability to the test, because the alveolar variant has a very low rate of occurrence (around just 17 per cent overall in the data examined here). Furthermore, recent work has observed changes in the conditioning in some varieties, suggesting that the long-term stability of (ing) may not be as steadfast as has been widely believed (Forrest and Wolfram 2019: 82–86; Cole 2020: 107–108). On the other hand, very little is known about the patterning of (ing) according to ethnicity, and how this variation is taken up across ethnic groups.

We explore the patterning of (ing) over time in Australian English by conducting real- and apparent-time comparisons in a one-million-word corpus of spontaneous speech from recordings made in the 1970s (Horvath 1985) and in the 2010s, compiled as part of the *Sydney Speaks* project (Travis, Grama, and Gonzalez In Progress). *Sydney Speaks* is an ideal resource for a large-scale, empirical test of the stability of (ing), not only because it provides data recorded over real time, but also because it includes a diversity of speakers at the two time points, including men and women from different social classes representing some of Australia's largest ethnic groups – Anglo-Celtic, Italian, Greek, and Chinese Australians.

We lay the ground for the study in Section 2 by summarising the patterning reported in the extensive prior variationist work on (ing). We then describe the *Sydney Speaks* project and the data extraction method (Section 3), before comparing alveolar rates over time, where we report overall stability, but with some differentiation across age groups and ethnicity (Section 4). For the conditioning (Section 5), we first examine verbal tokens only, and find similar patterning to other varieties both for Anglo Australians and across ethnic community; for word class, in contrast, we observe a change over time, as the variable context broadens from largely verbal tokens only to include the pronouns *something* and *nothing*.

Interpretation of the differences in rates of [n] across ethnicity allows us to highlight a fundamental link between ethnicity and social class (Section 6).

2. (ing) across varieties of English

The vast body of work on (ing) reveals that rates differ widely across varieties. This can be seen in Figure 1, which shows overall rates of use of the vernacular alveolar versus the standard velar variant in spontaneous speech data from a selection of studies. Alveolar rates tend to be higher in Britain than in the United States, and are lowest in New Zealand and Australia. It must be borne in mind that these rates are not directly comparable, in particular because they will be impacted by differences in age, gender and class distributions in the samples, as men, speakers of lower social classes and adolescents tend to have higher vernacular rates. Nevertheless, the low rate for Australian English is notable, in particular considering the different representation in the work that has been done, which includes speakers of different age groups from four major urban centres (university students in the capital, Canberra (Shopen 1978); teenagers and middle-aged adults of Anglo-Celtic, Italian and Greek background in Sydney (Horvath 1985: 98–103); young adults in Brisbane (Lee 1989); and adults in their 20s in Melbourne (Penry Williams 2020: 130–135)); and from one small town (teenagers and adults in Cessnock, 200 km northwest of Sydney (Shnukal 1982)). The wide-ranging difference in rates of [n] is not paralleled in the social and linguistic constraints, which tend to be shared across varieties, as we outline below.

A third variant has been described for Australian English – a voiceless velar stop following the nasal in pronouns with *-thing*, such as *something* [sɐmθɪŋk], or *nothing* [nɐθɪŋk] (Shopen 1978: 43; Shnukal 1982: 202, 205), a variant that also occurs in some varieties of British English (Houston 1985: 345; Cole 2020). [ɪŋk] exists as a second vernacular form, associated with men, the working class, and, in the case of Australia, rurality (with a rate of [ɪŋk] in *-thing* words in Cessnock as high as 59 per cent ($N = 466$, Shnukal 1982: 211)). The occurrence of the nasal with a voiced velar stop [ɪŋg] has also been noted for some varieties of British English, especially in the western Midlands and middle north (Wells 1982: 365–366). Both velar stop variants ([ɪŋk] and [ɪŋg]) have been reported in second-language speakers, leading to the suggestion that this may be attributable to transfer effects (Schleef, Meyerhoff, and Clark 2011: 216; Drummond 2012: 125).

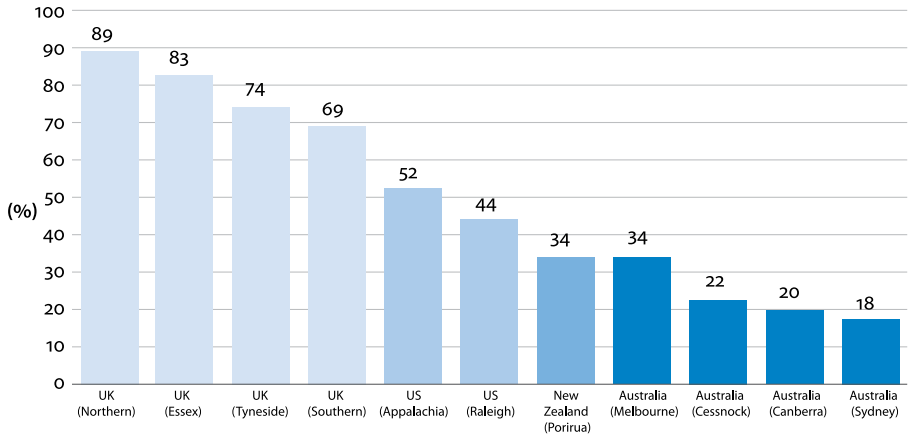

Figure 1. Overall rates of [n] (vs. [ŋ]) across varieties.
Northern / Southern UK regions, *N* = 2,363 (Houston 1985: 109); Essex, *N* = 2,183 (Cole 2020: 361); Tyneside, *N* = 3,500 (Mechler et al. 2022: 103); Appalachia, *N* = 6,982 (Hazen 2008: 127); Raleigh, *N* = 13,167 (Forrest 2017: 143); Porirua, *N* = 4,157 (Bell and Holmes 1992: 240); Melbourne, *N* = 3,124 (Penry Williams 2020: 131); Cessnock, *N* = 1,160 (Shnukal 1982: 210); Canberra, *N* = 1,988 (Shopen 1978: 46); Sydney, *N* = 1,161 (Horvath 1985: 100) [overall rates are not reported in all studies; those given here have been calculated from the data that is presented]

2.1 Social conditioning of (ing)

One of the most robust findings in the literature on (ing) is the status of [n] as the vernacular, or non-standard, variant, as evidenced in its association with informal speech, with lower social classes and with men (e.g. Fischer 1958: 50; Trudgill 1972: 181–182; Houston 1985: 146–147; Bell and Holmes 1992: 239; Labov 2001: 100; Hazen 2008: 129; Wagner 2012: 192), including in Australia (Shopen 1978: 47; Shnukal 1982: 203, 210; Horvath 1985: 101; Lee 1989: 59–60; Penry Williams 2020: 131).

Consistent with its classification as a stable linguistic variable, age differences have typically been demonstrated to represent age-grading rather than change in progress, showing an "adolescent peak", whereby individuals produce higher rates of vernacular forms during adolescence, but increase their use of standard forms as they age and become more sensitive to normative marketplace pressures (cf. Labov 2001: 454; Wagner 2012: 181–183). A higher vernacular rate in adolescence versus adulthood has been reported for (ing) in apparent time in Philadelphia, USA (Labov 2001: 112) and in Australia (Shnukal 1982: 207; Horvath 1985: 101). Longitudinal change has also been observed in panel studies of the same speakers. For example, young women in Philadelphia showed a drop in the vernacular

rate in just one year in the transition from high school to university (Wagner 2012: 187). This drop was most notable among those attending national universities (versus local tertiary institutions), and was evident even in students' final year of high school, as those aspiring to attend a national university were found to "calibrate their use of (ing) to their intended higher education/occupational trajectories" (Wagner 2012: 194). The impact of career trajectory has also been observed in comparisons of adults as they build their careers and then move into retirement, with greater use of the standard followed by a shifting back to the vernacular observed for a group of middle-class speakers over the lifespan in Newcastle, UK (Mechler et al. 2022: 104).

Effects for ethnicity have not been widely examined, but when they have been considered, they have been tied to the social sensitivity of (ing). For example, a high rate of the alveolar variant in the speech of adolescent speakers of African American English has been interpreted as "simply one of the shared traits of most vernacular varieties of English" (Van Hofwegen and Wolfram 2010: 440). Comparisons across Māori and Pākehā (European) working-class New Zealanders revealed no ethnic differences, with both groups having similarly high vernacular rates relative to Pākehā middle-class women (Bell and Holmes 1992: 240). Greater use of the alveolar form by Irish-American over Italian-American teen girls in Philadelphia has been attributed to the lower socio-economic status of the Irish girls, who were more likely to "orient away strongly from standard forms of female behavior" (Wagner 2012: 196). And in 1970s Australia, among teenagers, the vernacular variant was found to be most frequent among the working class and Italians (Horvath 1985: 101). Given the effects for age and ethnicity that have been observed for this socially marked variable, (ing) is of particular interest for the study of ethnicity over time.

2.2 Linguistic conditioning of (ing)

Studies of (ing) across varieties have reported a generally shared set of linguistic constraints. One of the most widely reported is that for word class, whereby verbal uses favour [n] over nominal and adjectival uses (e.g. Shnukal 1982: 205; Houston 1985: 110; Bell and Holmes 1992: 244; Labov 2001: 88; Forrest and Wolfram 2019: 85). Differentiation between verbs and nouns also manifests in priming. There is a tendency for a preceding (ing) to prime repetition of the same variant within, but not across, morphological category, such that there is priming within verbs and nouns, but not from verbs to nouns, or *vice versa* (Tamminga 2016: 349). In contrast to the widely applicable differences in nominal versus verbal categories, the pronouns *something, nothing, anything* and *everything* appear to differ across varieties (cf. Houston 1985: 22–23), and have been treated in dis-

parate ways – they have been collapsed with other nominals (e.g. Houston 1985: 23; Hazen 2008: 121), treated as a distinct variable (e.g. Cole 2020: 359), or excluded from analysis entirely (e.g. Forrest 2017: 136). These turn out to be a locus of variation in the data examined here, as we discuss in detail below (Section 5.3).

Another of the most widely considered linguistic constraints is that of following phonological context, with regressive assimilation motivating the alveolar variant with a following coronal consonant, and the velar variant with a following velar consonant (e.g. Shnukal 1982: 205; Houston 1985: 20; Bell and Holmes 1992: 244; Forrest 2017: 143). Though less widespread, an effect for preceding phonological context has also been reported, with a disfavouring of the velar variant following a velar consonant, interpreted as dissimilation (e.g. Houston 1985: 20; Hazen 2008: 125; Schleef, Meyerhoff, and Clark 2011: 218). The final constraint regularly reported is a favouring of [n] in two-syllable words over longer words (e.g. Shopen 1978: 44; Bell and Holmes 1992: 244; Schleef, Meyerhoff, and Clark 2011: 219; Forrest and Wolfram 2019: 84). Despite the very low rate of the vernacular variant in Australia, we will see that similar linguistic constraints are operative for all but the pronouns, which is precisely where we observe change over time.

3. Data for examining (ing) over time: *Sydney Speaks*

The data examined here come from the *Sydney Speaks* corpus, which includes recordings made at different time periods with speakers of different ages, thus allowing for real- and apparent-time comparisons (Travis, Grama, and Gonzalez In Progress). For this study, we draw on two sub-corpora, one recorded in the period from 1977 to 1981, for the *Sydney Social Dialect Survey* (Horvath 1985), and the other recorded from 2016 to the present as part of the ongoing *Sydney Speaks* project. We refer to these by the decade in which most recordings were conducted, as the 1970s and 2010s corpora respectively.

3.1 Data collection

The primary method for data collection was the sociolinguistic interview, aimed at getting the participant talking as naturally as possible in an effort to record maximally unmonitored speech (Labov 1984: 32–42). Topics covered include the participants' experiences growing up in Sydney and how Sydney has changed over time; childhood memories; stories about work or travel; social networks and, for the migrant-background participants, connections with the community and the lan-

guage. Interviews lasted an average of 45 (1970s) and 90 minutes (2010s), and from this, we selected approximately 30 minutes for transcription, generally beginning between 15 and 30 minutes into the recording. Transcriptions were made orthographically in ELAN (Lausberg and Sloetjes 2009) and then uploaded into LaBB-CAT for forced aligning and corpus management (Fromont and Hay 2012).

After the sociolinguistic interview, participants were recorded reading word lists. How participants produce (ing) in this more careful context can provide some indication as to their attitude to the variants, and tellingly, the alveolar variant was virtually absent in these data. There were just four alveolar (ing) tokens out of a total of 1,800 tokens produced (from two (ing) word types in the 1970s word list (*drawing, everything*), and 15 word types in the 2010s word list). The word list data therefore support the interpretation of the alveolar variant as non-standard in Australia.

3.2 Participants

We report on interviews with 204 speakers, who together provide some 100 hours of speech, or approximately one million words. Table 1 summarises the demographic breakdown of the participants. Two age groups are represented at each time point, which we term, for the 1970s, *Adults* and *Teens*, and for the 2010s, *Adults* and *Young Adults* (using capitalisation to represent operational terms defined for the project). We consider each of these four cohorts separately, thus conflating the real- and apparent-time comparisons to be able to chart the progression of the change and test for age grading (by comparing the 1970s Teens and 2010s Adults who were born in the same period).

The corpora include Australians of different ethnic backgrounds: Anglo-Celtic Australians (henceforth Anglo Australians) are represented at each time point; Italian Australians for the 1970s Teens, 2010s Adults and 2010s Young Adults; Greek Australians for the 1970s Teens only (as data collection is still underway); and Chinese Australians for the 2010s Young Adults (as this is a newer migrant group). The Anglo Australians all grew up in English-speaking households and are minimally fourth-generation Australians (that is, their parents and grandparents, and often previous generations, were born in Australia). The other groups are primarily second-generation Australians, who were born in Australia or arrived before the age of 6, and whose parents were born respectively in Italy, Greece and Hong Kong or Guangzhou (i.e. Cantonese-speaking regions).[1]

These ethnic communities vary in terms of the participants' social networks, to which we gain insight from topics that arise in the sociolinguistic interviews

1. Five of the 16 Italian 2010s Young Adults are third-generation Australians.

relating to family, friends, and interactions at school, work, or in the neighbourhood. For the 2010s, further information was obtained from a demographic questionnaire administered at the end of the interview that included a request to list close friends and their ethnicity (cf. Cheshire et al. 2008). Participants listed an average of six people, and the ethnicities given indicate that over time, migrant groups tend to shift from networks that are concentrated in their ethnic community to those that are more integrated with the majority Anglo community, something which helps interpret the variable patterning they show in (ing) (cf. Section 6).

Table 1. Distribution of participants

Corpus	**1970s**				**2010s**				
Age group	**Adults**		**Teens**		**Adults**		**Young Adults**		
Ave. birth decade	**1930s**		**1960s**		**1960s**		**1990s**		
Ave. age	**44 years**		**15 years**		**53 years**		**24 years**		
Gender	**Women**	**Men**	**Women**	**Men**	**Women**	**Men**	**Women**	**Men**	**Total**
Ethnicity									
Anglo	12	8	12	12	14	11	12	14	95
Italian			13	12	10	13	10	6	64
Greek			10	13					23
Chinese							11	11	22
Total	**12**	**8**	**35**	**37**	**24**	**24**	**33**	**31**	**204**

Participants are stratified according to social class. This was determined on the basis of occupation scores provided by the Australian Socio-Economic Index (AUSEI), a measure that takes into account a range of factors, including the educational background associated with, and income potential of, occupational classifications used by the Australian Bureau of Statistics, to establish "sociologically meaningful occupational status scores" (McMillan, Beavis, and Jones 2009: 123). AUSEI scores range from 0 to 100, and the participants are located along the continuum, from a factory worker (with a score of 16.3, the lowest in the sample), to, for example, hairdressers (25.2), shop owners (40.8), real estate agents (55), accountants (83.7), and doctors (100). There is no agreed-on standard for classifying social class in Australia and several different factors have been used as proxies, including education and school type, as well as occupation. Two advantages of AUSEI are that it is a replicable measure that facilitates comparability across studies, and being continuous, it avoids having to place speakers into artificially discrete categories (e.g. Working Class, Middle Class).

Importantly, social class intersects with ethnicity, as can be seen in Figure 2, which presents the range of Occupation scores by Ethnic community for each Age group. The Anglo Australians show little differentiation over time. The Italian and Greek 1970s Teens have lower scores than their Anglo peers, while the 2010s Anglo and Italian Adults are similar to each other. The 2010s Young Adults have relatively narrower ranges, and the Italians the narrowest of all, due to a predominance of university students in this group (10/16). The Chinese Young Adults have higher scores than the Anglos, reflecting the overall high socio-economic status of this community. Australians from Hong Kong are reported to be "generally highly qualified and well educated" (Jupp 2001: 221), and census data indicates that second-generation Chinese Australians of Cantonese background tend to attend selective or private schools, be well-educated and work in high-status occupations (Australian Bureau of Statistics 2016).[2] The different class profiles for the ethnic communities have been found to manifest in their speech in prior *Sydney Speaks* work (Grama, Travis, and Gonzalez 2020, 2021; Qiao and Travis 2022), and we will see that this is also evident for (ing).

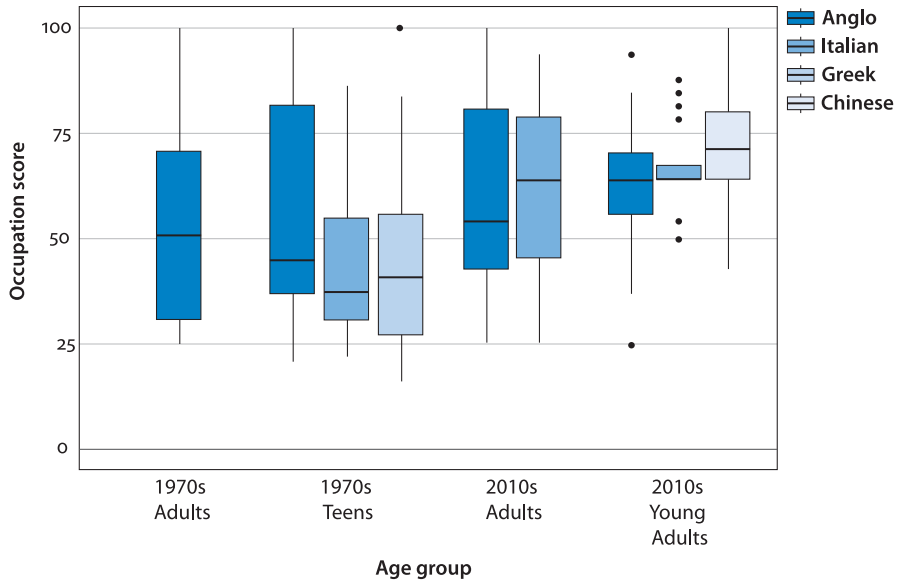

Figure 2. Range of Occupation scores for participants by Age group and Ethnicity

2. Census comparisons indicate that the same social class profile does not apply to the Mandarin-background community, which has a different immigration timeline and pathway (cf. Jupp 2001: 215–222).

3.3 Extraction and coding

Extraction of (ing) from the sociolinguistic interviews was carried out in separate stages. For the 1970s data, initially a subset of (ing) tokens that comprised all tokens up to and including the first 20 unique lexical items (approximately one half of the available data) was manually extracted and coded in ELAN. For the remaining data from the 1970s Adults and both 2010s age groups, all instances of (ing) were automatically tagged using regular expressions in LaBB-CAT and downloaded with the corresponding audio files for coding.

Coding was done auditorily by one trained listener; a subset of the data was spot-checked or blind-coded by a second listener, and amendments made as needed. We made a binary distinction between alveolar [n] and velar [ŋ] realisations. The minor variants referred to above were set aside – [ɪŋk] occurred with pronouns in the 1970s data, but was very rare ($N = 40$), and some occurrence of [ɪŋg] was observed in the 2010s data, though this was also rare and was not systematically coded. Some variation in vowel realisation was evident (cf. Houston 1985: 21; Lee 1989: 59), but this has been left for future analyses. Tokens that occurred in overlap, with background noise, or were otherwise unclear or ambiguous were excluded. Also excluded were all instances of future *going to* and auxiliary *trying to*, both of which tend to be reduced (reflected in their non-standard orthographic representations *gonna* and *tryna* (cf. Wagner 2012: 199; Forrest 2017: 137)), and proper nouns (e.g. *Epping* (suburb name), *Leaving Certificate, Boxing Day*), which were very low frequency (fewer than 100) and categorically velar (cf. Labov 2001: 79). This process yielded 13,578 tokens for analysis: 3,956 tokens from the 1970s data (with an average of 43 tokens per speaker, ranging from 8 to 113 tokens), and 9,622 from the 2010s data (an average of 86 tokens per speaker, ranging from 18 to 167).

The linguistic predictors we coded were Word class, Following and Preceding phonological context, and Syllable count. For Word class, coding was done using a combination of manual and automatic methods (using CLAWS4, the Constituent Likelihood Automatic Word-tagging System developed by Lancaster University (Garside 1987)), cross-checking the coding from each method to develop a reliable, semi-automatic coding procedure. This resulted in a three-way classification between Verbal uses, such as progressives and participles, as in (1); Non-verbal uses, including nouns, adjectives, and gerunds, as in (2); and Pronouns, including both Pronominal and General Extender uses, as in (3).[3]

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3. To assess reliability of the automatic coder, we manually and automatically coded the same set of data (a subset of the 1970s Adults data, and all 1970s Teens data). Comparisons of these two sets of coding revealed that the tagger was very reliable for Pronouns and Verbs (*some-*

(1) Verbal
Progressive *I think the neighbours were just **complaining** and that.*
[SydS_AYM_124_Craig: 43:32–43:34][4]
Participle *I went to school **speaking** English,*
[SydS_IOF_132_Simone: 1:04:54–0:04:56]

(2) Non-verbal
Noun *that was the oldest **building** at our school.*
[SSDS_GTF_853_Dina: 15:32–15:34]
Adjective *everybody would have their own **skipping** rope,*
[SSDS_AAF_125_Paula: 10:47–10:48]
Gerund *Wasn't necessarily **bullying** there though,*
[SydS_AYM_013_Tony: 48:23–48:25]

(3) Pronouns
Pronominal *and sometimes we've got **nothing** to talk about.*
[SydS_CYF_048_Sarah: 1:12:37–1:12:39]
General *I think you could cash them in for a buck or **something**.*
Extender [SSDS_ATM_101_Brian: 09:14–09:16]

For Following phonological context, we applied a four-way categorisation: Intonation-Unit Final (IU-final), Vowel, Non-coronal (labial and dorsal) consonant, and Coronal consonant. Labial and dorsal consonants were collapsed due to the low number of dorsal tokens ($N=372$, versus 1,822 labial), and following /h/ was included in the Vowel category due to similarity in articulatory setting and low frequency ($N=301$, versus 4,061 vowel). For Preceding phonological context, we also used a four-way classification: Coronal, Labial, Vowel and Dorsal. For Syllable count we distinguished between two-syllable words and longer words (87 per cent of which were words of three syllables).

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thing, nothing, anything and *everything* were categorically tagged as pronouns, and 95 per cent of tokens automatically tagged as verbs also fit into the verbal categories identified by the manual coding). For other word classes, however, the agreement rate between the automatic and manual coding was around 75 per cent. Therefore, all tokens remaining from the 1970s Adults and the 2010s data were coded using the automatic tagger, and all words that were not tagged as a pronoun or within the verbal categories, and a subset of those that had been coded in the verbal categories, were manually corrected ($N=$ 6,030). For those tokens tagged as one of the verbal categories ($N=5{,}182$), manual coding of a subset of 600 tokens confirmed a similar agreement rate to that obtained in the 1970s data (95 per cent), and we therefore left the remaining tokens as Verbal, without further checking.

4. Examples are produced verbatim from the transcripts. In brackets we give the corpus abbreviation (SSDS, 1970s; SydS, 2010s), the speaker code (ethnicity, age group, gender, number), and time stamps of the beginning and end of the excerpt. Transcription conventions appear in the Appendix.

It is worth noting that both Preceding phonological context and Syllable count intersect with Word class. In Pronouns, (ing) is categorically preceded by an interdental (with *-thing*, cf. Houston 1985: 20; Hazen 2008: 125), and in the data here, almost all instances with a preceding Vowel occur in Verbal contexts (for example, with the highly frequent *going, doing, being*). For Syllable count, while words of over two syllables account for just 10 per cent of Verbal tokens, they account for 35 percent of Non-verbal tokens (e.g. *interesting, amazing*) and 38 per cent of Pronominal tokens (namely, *anything* and *everything* (cf. Houston 1985: 22)). Thus, rather than trying to combine these predictors in the one analysis, we focus initially on the Verbal tokens only, which constitute the bulk of the data (64 per cent), and also show the greatest variability over time.

4. Rates of (ing) over time and across ethnicity

We begin by considering the rates of the alveolar variant in Verbal contexts by Age group and Ethnic community, as presented in Figure 3, with the standard error indicated for each subgroup. Here we see that the low rate of [n] for the 1970s Adults (12 per cent) is retained today (13 per cent for the Young Adult Anglos). There are, however, notable differences across Age and Ethnicity.

First, we see that the rate of [n] increases sharply from the 1970s Adults to the 1970s Teens, of whom the Italians (34 per cent) have the highest alveolar rate, followed by the Greeks (27 per cent) who are similar to the Anglos (26 per cent) (cf. Horvath 1985: 100–103). The 2010s Adults (this same generation forty years on) pattern differently according to ethnicity. The Anglo Australians in this Age group show substantially reduced rates of [n] (17 per cent), indicating that the higher rate by the Teens was consistent with an adolescent peak reported for (ing) elsewhere (cf. Labov 2001: 110–113; Wagner 2012: 182). The Italian Adults, however, retain the high rate of the 1970s Teens (33 per cent), undergoing a shift towards the standard a generation later with the 2010s Young Adults. For this youngest group, the three communities all present low alveolar rates, with the Chinese Australians (6 per cent) having a noticeably lower rate than both the Italians (8 per cent) and Anglos (13 per cent). The Chinese Australians also exhibit the smallest degree of variance, indicating that the low rate of the vernacular generally holds for all speakers in this group.

In sum, although the rates in the data here are overall consistent with a stable variable, there are notable differences both across ethnicity and in the trajectory over time. To understand these differences, we now turn to consideration of the constraints on (ing) variability.

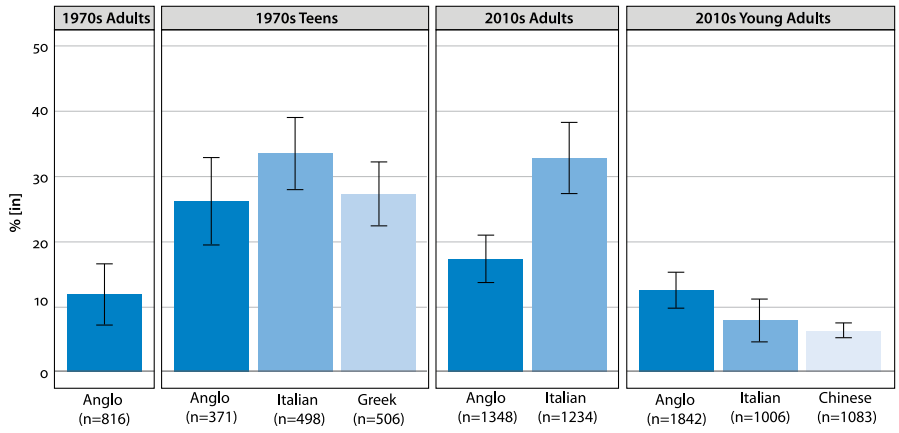

Figure 3. Rate of [n] over time in Verbal contexts, by Age group and Ethnicity ($N = 8{,}704$) (y-axis limited at 50 per cent to better show differences across groups)

5. Analysing social and linguistic conditioning over time

In order to examine the constraints on variation in (ing), we conducted three sets of analyses. For the first two of these, we fit logistic mixed-effects regressions to (ing) in Verbal contexts using the lme4 package in R (Bates et al. 2019; R Core Team 2019). The dependent variable for each model was the realisation of (ing) (predicting the alveolar variant). First, to obtain an overview of the social and linguistic conditioning, we present an analysis of the Anglo Australians over time, with the social predictors of Age group, Gender and Occupation score (AUSEI, scaled to improve model fit) (Section 5.1). Second, to understand differences across Ethnic community at each time point, we fit a separate model to each Age group, and include Ethnicity as a social predictor (Section 5.2). In all models, we included Phonological context (Preceding and Following) and Syllable count as linguistic predictors. We tested for two- and three-way interactions, and interactions which did not improve model fit were simplified (assessed by comparing AIC from ANOVAs). The threshold of significance was set at 0.05. Speaker and Word were included as random intercepts. For Word, we pooled all *hapax legomena* (verb types that occur once, which constitute approximately one half of all tokens), into a single level, as these are unlikely to have a lexically specific profile for users and this simplifies the computation of random effects (cf. Szmrecsanyi et al. 2016: 9; Travis and Torres Cacoullos 2021: 5). For the third analysis, we move beyond the Verbal context, to consider differences across Word class more broadly, allowing us to identify a change over time in the patterning of Pronouns (Section 5.3).

5.1 Conditioning of (ing) over time for Anglo Australians

As Anglo Australians are represented at all four time points, analysis of this group allows us to track the behaviour of (ing) over time and gain a broad understanding of its conditioning in Australia. The output from the model is presented in Table 2 (with information about token numbers and the alveolar rate for each level in the last two columns).

Table 2. Output of logistic mixed effect model predicting [n] realisation for Anglo Australians in Verbal contexts

	Odds Ratio	Std. Error	z value	N	Rate [n]
(Intercept)	0.02	0.01	−8.22***		
Age Group (ref: 1970s Adults)				816	12%
1970s Teens	5.72	2.85	3.50***	371	28%
2010s Adults	3.01	1.43	2.31**	1,348	17%
2010s Young Adults	1.97	0.94	1.42	1,842	12%
Gender (ref: Men)				2,163	23%
Women	0.22	0.07	−4.79***	2,214	7%
Occupation score (AUSEI)	0.33	0.07	−5.01***	(continuous)	
Following Phonological context (ref: IU-Final position)				622	9%
Vowel	1.93	0.40	3.18**	1,664	13%
Non-coronal	2.86	0.65	4.66***	747	16%
Coronal	4.04	0.84	6.76***	1,344	19%
Preceding Phonological context (ref: Coronal)				1,566	11%
Labial	1.19	0.29	0.72	601	12%
Vowel	1.58	0.33	2.17**	1,498	17%
Dorsal	2.30	0.49	3.90***	712	21%
Syllable count (ref: Two)				3,945	16%
Three or more	0.47	0.13	−2.81**	432	6%
Gender x Occupation score					
Women x Occupation score	1.91	0.59	2.08**	(continuous)	

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$; shaded rows indicate significant effect
Odds ratios below 1 indicate disfavouring of [n] and greater than 1 favouring of [n]
Overall rate of [n] = 15% (657/4,377)
95 speakers, variance = 1.70 (SD = 1.3); 397 word types, variance = 0.24 (SD = 0.49)
Log likelihood: –1329.7; AIC: 2691.3; BIC: 2793.5

The results for Age group corroborate the patterns over time seen in Figure 3. Compared with the 1970s Adults, both the 1970s Teens and the 2010s Adults show a greater favouring of [n], most notably the Teens. The 2010s Young Adults, on the other hand, are no longer distinct from the 1970s Adults, supporting (ing)'s long-term stability.

We find the predicted effects for Gender and Occupation, with a significant interaction between them. As depicted in Figure 4, for Men, the vernacular variant is favoured more by those with lower Occupation scores (though there is no such class effect for Women), and for those with lower Occupation scores, the vernacular variant is favoured by Men over Women (though there is no such Gender effect for those with higher Occupation scores).

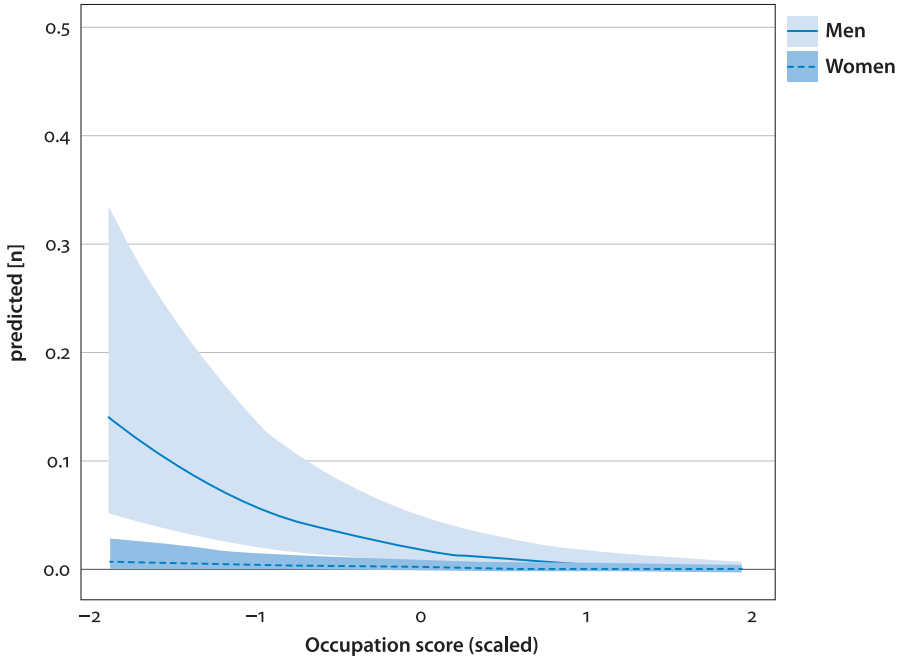

Figure 4. Predicted probability of [n] from model fit to Anglo Australians over time (Table 2) showing interaction effect of Gender and Occupation score (y-axis limited to 0.50 to better show inter-group differences)

Linguistic effects parallel the patterning of (ing) in other varieties of English. Following phonological context returns the most robust result: the alveolar variant is least favoured in IU-Final position, and is incrementally more likely when followed by a Vowel, a Non-coronal consonant and a Coronal consonant (a combination which occurs most frequently in "VERB-*ing* + *to*" collocations, e.g., in the

data here, *going to* (non-future), *talking to, starting to*, cf. Forrest 2017: 149). An effect for Preceding phonological context is also observed; the alveolar realisation is least favoured with preceding Coronals and Labials, and most favoured with preceding Vowels and Dorsals. Finally, words with three or more syllables are significantly less likely to be realised with the alveolar variant than two-syllable words.

Having seen that the constraints on (ing) in Verbal contexts for Anglo Australians are largely parallel to that seen elsewhere, we now broaden our analysis to take into account the different ethnic communities.

5.2 Conditioning of (ing) over time and across ethnicity

In order to conduct meaningful comparisons in these data where the ethnic communities represented differ across time points, we fit a logistic mixed-effects regression model to each Age group, thus conducting four independent analyses identical in all but Ethnicity, and comparing across them, in accordance with the Variationist Comparative method (Poplack and Meechan 1998: 130–132; Torres Cacoullos and Travis 2019: 656). The output from the four models is presented in Table 3, with corresponding information about token numbers and rates in Table 4, and random intercept variance and information criteria in Table 5.

Considering first the results for the linguistic predictors, all analyses are consistent both with each other and with the trends in the overall model (Table 2), suggesting general stability in the linguistic conditioning of (ing) in Verbal tokens over time, despite the fluctuation in rates. For Following phonological context, [n] is consistently significantly favoured when followed by a Coronal, then variably so (and to a lesser degree) with following Non-coronals and Vowels, and least favoured in IU-Final position. For the 1970s Adults only, the effect of a following Vowel is not significantly different from Final position ($p = 0.093$), indicating a shift may have taken place here. For the 2010s Adults, a following Non-coronal consonant is also not significantly different from Final position, though this effect is only just above the threshold of significance ($p = 0.051$). Preceding phonological context and Syllable count have comparably less impact on (ing). Preceding Dorsal motivates a significantly higher rate of [n] for all but the 1970s Adults; a preceding Vowel also motivates a higher rate for the 1970s Teens and 2010s Adults, suggesting a possible cohort effect. The effect of Syllable count only reaches significance in the 2010s Adults.

Table 3. Output of four independent logistic mixed effect models predicting [n] realisation over time and across Ethnicity in Verbal contexts. (NA: level/predictor not applicable for the corresponding Age group; ns: non-significant interaction (non-significant fixed effect predictors are retained to facilitate comparability between models))

	1970s Adults			1970s Teens			2010s Adults			2010s Young Adults		
	Odds Ratio	Std. Error	z value	Odds Ratio	Std. Error	z value	Odds Ratio	Std. Error	z value	Odds Ratio	Std. Error	z value
(Intercept)	0.01	0.01	−4.20***	0.07	0.03	−5.73***	0.05	0.02	−7.58***	0.03	0.01	−8.75***
Gender (ref: Men)												
Women	0.19	0.20	−1.57	0.12	0.05	−5.55***	0.47	0.17	−2.03*	0.18	0.08	−3.95***
Occupation score (AUSEI)	0.29	0.15	−2.35*	0.36	0.07	−4.96***	0.34	0.08	−4.38***	0.66	0.14	−2.02*
Ethnicity (ref: Anglo)												
Italian	NA			0.90	0.07	−0.24	3.43	1.27	3.32**	0.75	0.38	−0.56
Greek	NA			0.44	0.41	−1.73	NA			NA		
Chinese	NA			NA			NA			0.41	0.18	−1.99*
Following phon context (ref: IU-Final position)												
Vowel	2.75	1.65	1.68	4.38	1.16	5.58***	1.85	0.35	3.09**	1.89	0.51	2.34*
Non-coronal	4.32	2.77	2.28*	3.82	1.16	4.42***	1.55	0.35	1.95	2.25	0.67	2.72**
Coronal	5.78	3.49	2.90**	8.16	2.25	7.62***	2.90	0.59	5.24***	4.36	1.16	5.54***

Table 3. *(continued)*

	1970s Adults			1970s Teens			2010s Adults			2010s Young Adults		
	Odds Ratio	Std. Error	z value	Odds Ratio	Std. Error	z value	Odds Ratio	Std. Error	z value	Odds Ratio	Std. Error	z value
Preceding phon context (ref: Coronal)												
Labial	0.77	0.50	−0.40	1.22	0.36	0.67	1.07	0.28	0.28	1.85	0.69	1.65
Vowel	1.94	0.98	1.32	1.82	0.48	2.26*	1.54	0.34	1.98*	1.86	0.63	1.82
Dorsal	2.33	1.31	1.50	2.35	0.65	3.08**	2.90	0.66	4.71***	3.22	1.10	3.43**
Syllable count (ref: Two)												
Three or more	0.29	0.22	−1.60	1.29	0.47	0.70	0.55	0.14	−2.32*	0.51	0.20	−1.75
Gender x Occupation score												
Women x Occupation score			ns			ns	2.94	1.03	3.06**			ns
Ethnicity x Gender												
Italian x Women	NA					ns			ns	2.21	1.55	1.13
Greek x Women	NA					ns	NA			NA		
Chinese x Women	NA			NA			NA			4.22	2.76	2.21*

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$; shaded rows indicate significant effect
Odds ratios below 1 indicate disfavouring of [n] and greater than 1 favouring of [n]

Table 4. Rates and token numbers for categorical levels in fixed effects in Table 3

	1970s Adults		1970s Teens		2010s Adults		2010s Young Adults	
	N	Rate [n]	N	Rate [n]	N	Rate [n]	N	Rate [n]
Overall	816	12%	1375	29%	2582	25%	3931	10%
Gender								
(ref: Men)	333	23%	799	40%	1434	31%	1912	14%
Women	483	4%	576	15%	1148	17%	2019	6%
Occupation score (AUSEI)	(continuous)							
Ethnicity								
(ref: Anglo)	816	12%	371	26%	1348	17%	1842	13%
Italian			498	34%	1234	33%	1006	8%
Greek			506	27%				
Chinese							1083	6%
Following phon context								
(ref: IU-Final)	135	13%	258	14%	365	18%	510	4%
Vowel	286	10%	495	30%	1027	25%	1509	8%
Non-coronal	141	13%	209	28%	440	21%	684	9%
Coronal	254	13%	413	39%	750	29%	1228	14%

Table 4. *(continued)*

	1970s Adults		1970s Teens		2010s Adults		2010s Young Adults	
	N	Rate [n]	N	Rate [n]	N	Rate [n]	N	Rate [n]
Preceding phon context								
(ref: Coronal)	292	10%	538	25%	783	18%	1394	5%
Labial	122	11%	165	26%	377	20%	492	8%
Vowel	291	13%	429	31%	952	27%	1319	13%
Dorsal	111	14%	243	38%	470	35%	726	14%
Syllable count								
(ref: Two)	741	12%	1288	30%	2328	26%	3477	11%
Three or more	75	8%	87	25%	254	11%	454	3%
Gender x Occupation score	(continuous)							
Ethnicity x Gender								
(ref: Anglo Women)			186	9%	649	11%	896	5%
Anglo Men			185	44%	699	23%	946	20%
Italian Women			230	19%	499	23%	624	6%
Italian Men			268	46%	735	39%	382	10%
Greek Women			160	16%				
Greek Men			346	32%				
Chinese Women							499	6%
Chinese Men							584	7%

Table 5. Speaker and word counts, variance and information criteria for models fit to Age group (from Table 3)

	1970s Adults	1970s Teens	2010s Adults	2010s Young Adults
N speakers	20	72	48	64
Variance (speaker)	3.75	1.61	1.36	0.84
N word types	172	200	301	377
Variance (word)	0.30	0.35	0.22	0.36
Log likelihood	−158.9	−615.3	−1084.2	−973.5
AIC	341.8	1258.6	2196.4	1979.1
BIC	398.3	1331.8	2278.4	2079.5

We now turn to the social conditioning. The effects for Gender and Occupation score are largely parallel across age models and the overall model (Table 2). For all, the likelihood of [n] increases as Occupation score decreases, and Men of all Age groups show significantly higher vernacular rates than Women, with the exception of the 1970s Adults ($p = 0.116$). The stark difference in rates here (23 per cent for Men vs. 4 per cent for Women) is partly driven by one man, Gregory, a meat deliverer who has an alveolar rate of 79 per cent and produces the most tokens. But even excluding him, the alveolar rate for Men is still twice that of Women, indicating that a similar Gender effect is operative for this group.

The interdependence between Gender and Occupation also holds for each Age group, though it only reaches significance for the 2010s Adults, possibly indicating that occupational pressures are felt most stringently by this group. Its significance in the overall model may be an aggregate effect that emerges once all data is pooled, functionally enhancing an effect that is observable (to differing extents) at each individual age group.

Ethnic communities, on the other hand, vary considerably across Age group. For the 1970s Teens, there are no significant differences across Ethnicity, indicating that the varying rates of [n] among Anglo, Greek and Italian Australians seen in Figure 3 are not genuine differences, but are attributable to other contextual factors (which are controlled for in the model). Furthermore, Ethnicity does not interact significantly with Gender or Occupation score, indicating a shared set of adolescent norms for Verbal tokens for the Anglo, Greek and Italian Teens.

The Anglo and Italian 2010s Adults, however, are significantly different from each other, with the Italians favouring [n] over the Anglos. As noted above, the 2010s Adult Italians retain the same high rates observed for the 1970s Teens, in contrast to the 2010s Adult Anglos, who shift away from the vernacular. The 2010s Adult Italians, then, appear not to respond to pressures to conform to the pre-

scribed standard in the way that the Anglo Australians do. The Young Adult Italians, on the other hand, have a substantially lower rate of [n], even lower than the Anglos (8 per cent versus 13 per cent). This difference does not emerge as significant in the model, however, likely because of the very narrow range of (relatively high) Occupation scores in the Italian sample (as discussed above and seen in Figure 2). The Young Adult Italian Australians thus have converged on behaviour that is in line with hegemonic norms.

For this Age group, it is the Chinese Australians who are significantly distinct from the Anglos, being least likely to use the vernacular variant, with a rate of just 6 per cent. As noted above, this is a group of high socio-economic status, so a lower vernacular rate is to be expected. However, even setting aside Anglo speakers with Occupation scores lower than that of the lowest Chinese (below 41; $N=3$), the Chinese still have a significantly lower vernacular rate than the Anglo Australians (6 per cent versus 10 per cent; $OR=0.42$, $SE=0.18$, $z=-2.01$, $p<0.05$).

There is also a significant interaction between Ethnicity and Gender for the Young Adults only, reflecting the fact that the Chinese Australians do not exhibit the Gender effect seen for other groups. This interaction is plotted in Figure 5, where robust Gender differences for the Anglos and Italians are evident, in con-

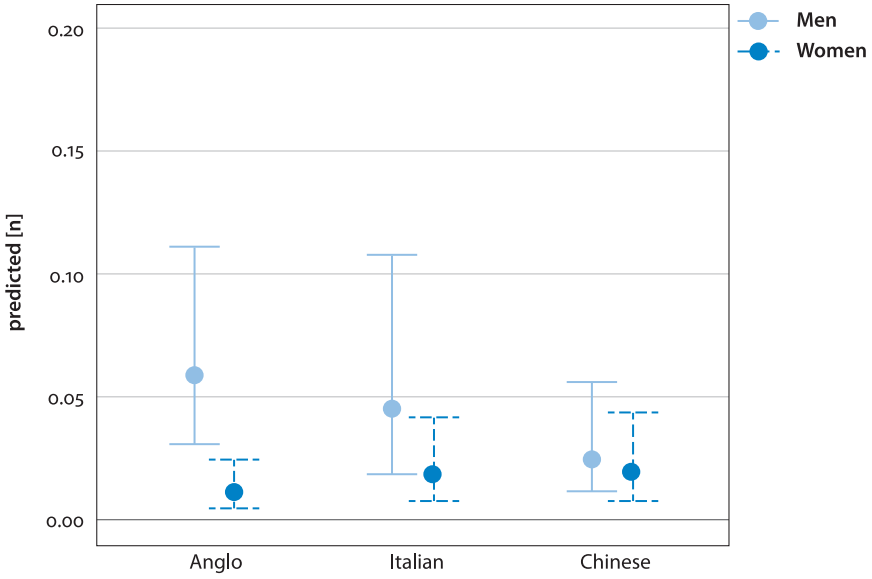

Figure 5. Predicted probability of [n] from model fit to 2010s Young Adults showing interaction effect of Gender and Ethnicity (from Table 3) (y-axis limited to 0.20 to better show inter-group differences)

trast to overlapping values for the Chinese Men and Women. Thus, not only are the Chinese lower overall, but normative pressures seem to apply equally to Chinese Men and Women in a way that they do not for Anglos and Italians. We present further interpretation of these differences below, but first we turn to our final analysis to examine Word class.

5.3 Changes in word class over time

Thus far, we have focused on Verbal uses only, but what of the other word classes? As noted above, a cross-varietal effect has been reported in the favouring of the alveolar variant in verbal over nominal uses. This favouring is particularly marked in Australia, as depicted in Figure 6 (first two columns). The overall vernacular rate for Non-verbal tokens is just 5 per cent, compared with 17 per cent for Verbal tokens. And though not shown here, this very low rate with Non-verbal tokens holds across Age groups (the Non-verbal rate is 3 per cent for the 1970s Adults, 10 per cent for the 1970s Teens (versus 29 per cent for Verbal tokens), 5 per cent for 2010s Adults and 3 per cent for 2010s Young Adults). Non-verbal tokens, then, ostensibly lie outside the variable context in Australian English.

The patterning for Pronouns appears to be variety-specific. In US varieties, *something* and *nothing* have been found to favour the alveolar variant over *anything* and *everything* (Houston 1985: 22; Labov 2001: 79), while across several British urban varieties, no such distinction has been reported (Houston 1985: 23). More recently, a study in Essex, UK, found that the alveolar rate is increasing with *nothing, anything* and *everything*, but not *something*, resulting in young speakers having a lower alveolar rate for *something* than for other Pronouns (Cole 2020: 364). Pronouns may therefore be more malleable than other word classes, and more susceptible to change over time and dialectal variation.

A favouring of [n] with *something* and *nothing* has also been reported for Australia (Penry Williams 2020: 130), and it is particularly evident in the data studied here, as can be seen in the columns on the right of Figure 6: while *something* and *nothing* have [n] rates of around 18 per cent, parallel to Verbal tokens, the rates for *everything* and *anything* (at 3 per cent and 1 per cent) are even lower than for Non-verbal tokens. To compare Word class over time, then, we consider *something* and *nothing* in a class on their own and include *anything* and *everything* in the class of Non-verbal items.

Figure 7 provides the rate of [n] for each Age group across these three Word classes. Here we see that, for the 1970s Adults, *something* and *nothing* pattern similarly to other Non-verbal tokens, with an alveolar rate of just 4 per cent. The five alveolar tokens for this Age group all come from one speaker, Gregory, who, at

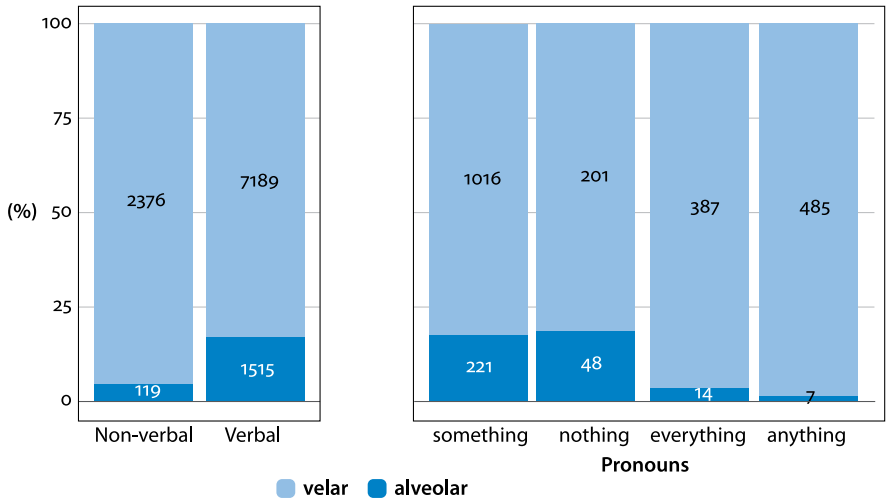

Figure 6. Distribution of (ing) variants by Word class: Verbal, Non-verbal and four *-thing* Pronouns ($N = 13{,}578$)

79 per cent [n], is one of the highest alveolar users in the sample. For the 1970s Adults, then, the variability is essentially limited to the Verbal category.

All other Age groups retain minimal variability in Non-verbal tokens, but we see a change with *something* and *nothing*. The 1970s Teens undergo a sharp increase in the alveolar rate with *something/nothing* (35 per cent, even higher than their rate for Verbal uses). The rate for the 2010s Adults of 15 per cent is not as high as that of the Teens, and it is lower than the rate for Verbal tokens, but it is well above the rate with Non-verbal tokens. And for the 2010s Young Adults the rate is lower still, but it remains closer to the rate for Verbal than Non-verbal tokens. This indicates a change from a system in which the variable context is limited to Verbal tokens only, to one which incorporates the Pronouns *something* and *nothing*.

As a final consideration of Word class differences, we look in more detail at the function of the Pronouns, as it has been found that the vernacular variant is most favoured when these forms are used as discourse markers (Schleef, Meyerhoff, and Clark 2011: 213). In the data examined here, a frequent discourse marker use is as General Extenders in the form (*and/or) something/nothing/everything/anything* (*like that*), illustrated in (3) above and (4) below, referring to a child's rhyme. All four Pronouns occur as General Extenders, but to different degrees: one half of all instances of *something* are General Extenders compared with 21 per cent and 25 per cent for *everything* and *anything*, and just 2 per cent for *nothing* (meaning that *something* accounts for 74 per cent of all General Extender tokens, 613/824). The higher alveolar rate with General Extender

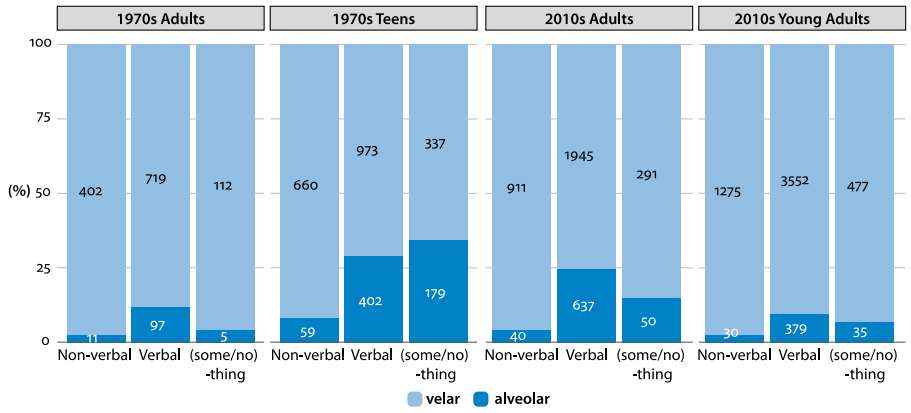

Figure 7. Distribution of (ing) variants by Word class over time: Non-verbal, Verbal, *something/nothing* ($N = 13{,}578$)

over Pronominal use holds for each of the Pronouns, though the minimal vernacular rate for *everything* and *anything* is independent of function; even as General Extenders, these two forms have a relatively low vernacular rate (7 per cent and 2 per cent respectively, versus around 25 per cent for *something* and *nothing* as General Extenders). This supports the classification of *something* and *nothing* in a category of their own.

(4) Dominic: *little Miss Pink fell down the sink,*
or something like that,

[SSDS_ITM_106: 16:30–16:34]

Charting the variability of these functions over time and across Ethnic community reveals some interesting differences. Figure 8 presents the distribution of alveolar versus velar tokens for *something* and *nothing* in their Pronominal versus General Extender use. Here we see that the highest rate of [n] for the 1970s Teens is with the Anglos and Italians, and in particular for the General Extender use, with alveolar rates close to 50 per cent (versus around 30 per cent for the Pronominal use). For the Greek Australian Teens, in contrast, not only is the vernacular rate lower, but there is minimal functional differentiation (with both Pronominal and General Extender uses having a rate under 25 per cent). This lower vernacular rate by the Greek Teens parallels Horvath's observations of this group's preference for more "cultivated" diphthong realisations, that is, overtly prestigious forms associated with the middle class (Horvath 1985: 93). Thus, though we observed little in the way of ethnic differences for Verbal tokens, differences do emerge for the Pronouns, and especially with respect to the incoming, pragmatically conditioned use.

This functional distinction is not retained over time, as for all subsequent Age groups, Pronominal and General Extender uses have similar alveolar rates (as seen in Figure 8). It seems, then, that, for the Teens, this pragmatic use may have particularly lent itself to the vernacular form, which may have played a role in the extension of the variable context to include *something* and *nothing*. Change in word-class effects has been observed in one other study and tied to lexicalisation with specific nouns (Forrest and Wolfram 2019: 85), and change in the patterning of pronouns has also been reported (Cole 2020: 364). Lexical effects may therefore be a rich area to explore possible change, and in particular for pronouns including when they play a pragmatic role.

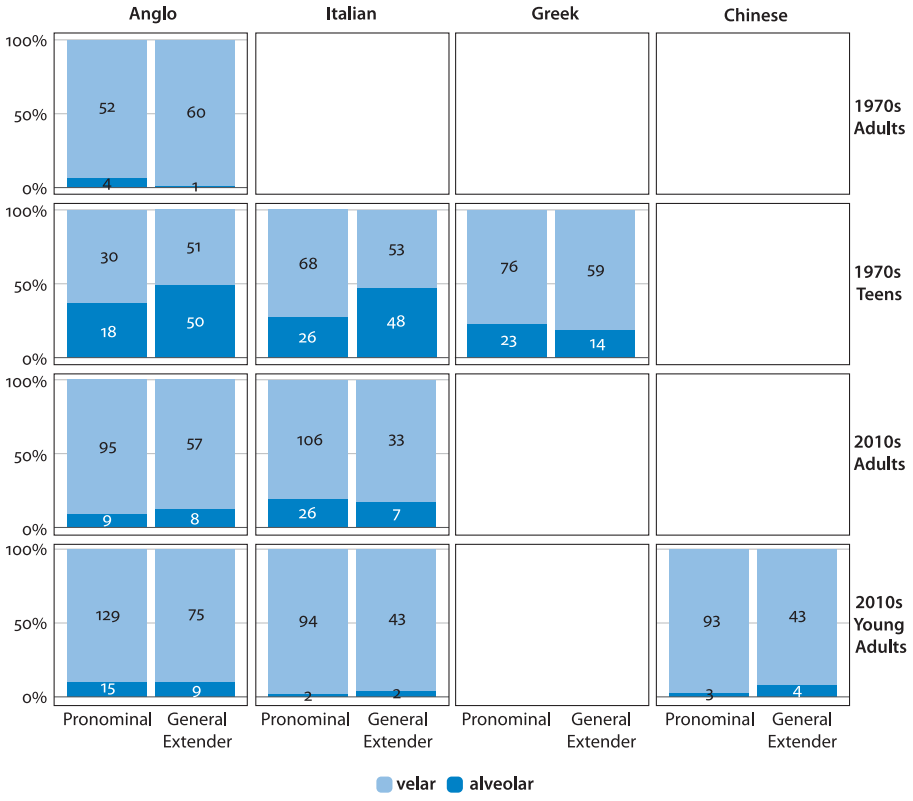

Figure 8. Distribution of (ing) variants for Pronominal vs. General Extender use by Ethnicity over time: *something* and *nothing* ($N = 1{,}486$)

6. Interpreting variation across ethnic communities

As noted above, the ethnic groups differ in terms of both the degree to which their networks are centred around their heritage community, and their distributions according to social class (Section 3.2). The information gathered from the sociolinguistic interviews and the demographic surveys indicates that Anglo Australians at each time point have highly Anglo networks. Class measures for Anglo speakers also span a broader range than non-Anglo groups. Given the majority status of Anglo Australians, and the Anglo-centric nature of the social hierarchies in Australia, the patterns for this group can be considered to represent hegemonic norms around (ing) in urban Australian English and provide a benchmark against which to compare the patterning of the ethnic minorities.

The Italian and Greek 1970s Teens appear heavily connected with their ethnic heritage, through their extended families and attendance at weekend language schools, for example. Despite this, they pattern similarly to the Anglo Teens, evidence of an orientation to shared adolescent norms, consistent with Horvath's observations about a desire among this group to "sound Australian" and differentiate themselves from their parents' accented English (1985: 176). Based on the self-reported friendships of the 2010s speakers, the Italian Adults retain the Italian-centred networks of the 1970s Teens, while the Young Adults have more Anglo networks. When asked to list people in their network, 14 of the 24 Italian Adults provide lists of which at least half are of Italian background, and only three list no Italians at all. By contrast, only three of the 16 2010s Young Adult Italians provide lists that include at least half Italians, and nine list no Italians. This shift in social networks between generations suggests a community change for the Italians, one which is viewed by some participants as a change in their allegiance to their Italian identity, as reflected in the extract in (5), where Lorenzo (a 2010s Adult) compares himself with his children (2010s Young Adults).

(5) Lorenzo: *I don't think they've got that same --*
like they're they're --
they're almost like,
we're Australian,
.. our background is .. Italian.
whereas,
I grew up thinking,
… I'm still Italian,
and I want to know Italian,
I want to know everything about it.
[SydS_IOM_095: 32:28–32:43]

A similar shift is evident for social class. The socio-economic status of Italian Australians has historically tended to be lower than that of Anglo Australians (Horvath 1985: 83). The Italian 1970s Teens and 2010s Adults are the children of post-war migrants, who took up jobs in manufacturing, construction or small business such as milk bars, cafes and delicatessens (Horvath 1985: 46; Jupp 2001: 514), and many continue to work in those occupations today (Ricatti 2018: 37–38). Though the community now enjoys greater financial stability, as seen in high levels of home ownership, this has been "achieved by working very long hours, often in tiring, tedious, or dangerous jobs" (Ricatti 2018: 41), and relying on occupational niches and social networks, following the model of an "entrepreneurial 'mobilised diaspora'" (Baldassar 2004: 862).

Thus, while in this sample, the 2010s Adult Italian participants have similar occupation scores to the Anglo Adults (see Figure 2), more broadly, this age group of Italians tends to operate in different networks from Anglo Australians. The same appears to hold for the linguistic marketplace in which they operate, such that they do not attend to the same pressures to shift away from vernacular (ing) that we see for the Anglo Adults. The Young Adults, on the other hand, have moved into more Anglo networks, and shifted away from the historically working-class community. These generational differences help explain why we observe significant ethnic differences in (ing) variation for the 2010s Adults that are weakened, or lost, for the 2010s Young Adults.

Similarly, the socio-economic status and networks of the Chinese Young Adults allow us to meaningfully interpret their patterning. First, as mentioned above, Chinese Australians are a particularly high socio-economic group, and this is evident in comments in the interviews. For example, in (6), Mark talks about the very successful network he is able to tap into having attended a selective high school, a type of prestigious public high school for which admission is via an entrance exam, and which is known to attract large numbers of East Asian students (cf. Ho and Bonnor 2018)

(6) Mark: *the people you meet,*
who are from selective school backgrounds,
are very smart.
.. [and very] capable.
Brett: *[Hm].*
Mark: *and very hard working.*
Brett: *.. Hm.*
.. [Yeah].
Mark: *[And like],*
… I think .. I have … an amazing network.

… because --
.. like,
… the people I know from .. s- ~Normanhurst ~Boys,
.. they are .. off doing amazing stuff.
… And like,
I will now have like,
… all these people who are at like,
at the top .. of .. their careers,
… um,
doing all this crazy stuff.
And,
I know them,
and I can … connect with them.
and stuff like that.

[SydS_CYM_061: 43:19–43:46]

Second, the Young Adult Chinese Australians report having largely Chinese networks: 17 of the 22 participants provide lists in which half or more of their network are of Chinese background, primarily "Australian-born Chinese" (and for three of the remaining five, at least half of their network are of East Asian background). There is nobody who lists no Chinese, but there are 10 who name no Anglo Australians, and the highest proportion of Anglos named is one half (the case for only two participants).

The Chinese Australians studied here, therefore, are embedded in heavily Chinese (or East Asian), middle-class networks, and the linguistic patterning suggests a corresponding sensitivity to overtly prestigious norms. For (ing), we see this in their minimal use of vernacular forms, but our prior work has reported similar behaviour for other variables: lengthening of word-final *-er*, a change for which Chinese Australians lie behind Italians and Anglos, and which has had an association with the working class (Grama, Travis, and Gonzalez 2020: 362); diphthong realisations, where gender differences for Anglo and Italian Young Adults (whereby men exhibit broader forms than women) are not subscribed to by Chinese Young Adults (Grama, Travis, and Gonzalez 2021: 309); and variability in the vowel in definite article *the* preceding a vowel-initial word, where the Chinese pattern with middle-class Anglos in leading a change from FLEECE to schwa (Qiao and Travis 2022: 59).

The ethnic patterning observed here would appear to reflect the impact of what Laferriere in early variationist work termed "cultural force", that arises from the intersection between the dominant social structures and the "particular esteemed educational, occupational, and linguistic values" of the community (1979: 615). Laferriere observed a role of education level in the uptake of certain changes among Jewish and Italian Americans in New York, with the higher-educated Jewish community adopting standard variants ahead of Italians (1979: 613). Likewise, in Canada, Boberg proposed that the overall higher levels of education among Jewish than Italian Canadians resulted in greater exposure to middle-class Canadian English, thus accounting for why Jewish Canadians were ahead and Italian Canadians behind in some vowel changes (2004: 563). Ethnic differences observed in London also suggest a role for class associations, in the distinction between "Multicultural London English", which has arisen in working-class neighbourhoods and is characterised by a high rate of use of vernacular features (e.g. Cheshire et al. 2011), and "British Asian English", which is spoken in lower-middle-class areas and follows more closely the norms of Standard Southern British English (Sharma 2020: 69). In Australia and elsewhere, then, migrants' linguistic behaviour is inextricably tied to the social context in which these communities live and operate.

7. Conclusion

How has this study advanced our existing knowledge of variable (ing), acquired from extensive research undertaken across the English-speaking world? Australia stands out for having a particularly low alveolar rate, but despite this, we observe the kind of stability reported elsewhere for this variable. The rate for alveolar realisation for the oldest age group (1970s Adults) is similar to that for the youngest group (2010s Young Adults). Most social and linguistic constraints also hold over time and are similar to those observed in other varieties of English: [n] is favoured by men, and those with lower occupation scores; it is favoured preceding another consonant, especially coronal consonants, and following a dorsal consonant; and it is favoured with verbs over nouns, though a difference is that alveolar realisations are virtually absent in nouns.

At the same time, we observe some differences across the age groups and ethnic communities. The 1970s Adults have a low rate of [n] and restricted range of variation, largely applying to verbs only. The 1970s Teens show a higher vernacular rate, consistent with an adolescent peak, and also variability not only with verbs but also with the pronouns *something* and *nothing*, and in particular as General Extenders. This establishes a broadening of the variable context that is main-

tained in subsequent generations. We see here, then, a change in the system of (ing) variability. It is difficult to assess how widespread this might be, given the little attention pronouns have received in the research on (ing) to date, typically being either excluded or collapsed with nouns. We put this forward as an important avenue of future research, that should also take into account the pragmatic function of pronominal forms.

The ethnic differences we observe can best be understood in the context of broader class distinctions. While the 1970s Anglo, Italian and Greek Teens are similar in their use of vernacular (ing), for the 2010s Adults, the Italians exhibit a higher alveolar rate, which we hypothesise is related to the tight Italian networks, and the position of this group in the broader Sydney socio-economic structure as a historically working-class population. There is no such ethnic distinction for the 2010s Young Adult Italians, who appear to have moved away from working-class associations and do not show the dense Italian networks of the previous generation. Among this youngest group, it is the Chinese who stand out not only in their very low rate of [n], but also in that this applies equally to men and to women. This is consistent with the middle-class networks in which this group operates, which appear to bring with them a great sensitivity to, and pressure to conform with, overtly prestigious norms.

It should be no surprise that ethnicity intersects with other social factors. Just as age, gender and social class are not independent components of social background, nor can ethnicity be considered in isolation. This intersection has been brought to the fore here with (ing), as a long-standing socially marked variable, allowing us to highlight the importance of the positioning of ethnic groups within the socio-economic hierarchy as a factor impacting ethnically based variation.

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Appendix. Transcription Conventions (Du Bois et al. 1993)

Carriage return	new Intonation Unit
.	final intonation contour
,	continuing intonation contour
--	truncated intonation contour
..	short pause (0.5 secs)
...	medium pause (0.5–0.7 secs)
[ ]	overlapped speech
~	pseudonym within the text (all speaker names are pseudonyms)

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