

This is a repository copy of *Emerging from below the social radar : Incipient evaluation in the North West of England*.

White Rose Research Online URL for this paper:
<http://eprints.whiterose.ac.uk/139608/>

Version: Published Version

Article:

Bailey, George orcid.org/0000-0001-5137-8394 (2019) Emerging from below the social radar : Incipient evaluation in the North West of England. *Journal of Sociolinguistics*. pp. 3-28. ISSN 1360-6441

<https://doi.org/10.1111/josl.12307>

Reuse

This article is distributed under the terms of the Creative Commons Attribution (CC BY) licence. This licence allows you to distribute, remix, tweak, and build upon the work, even commercially, as long as you credit the authors for the original work. More information and the full terms of the licence here:
<https://creativecommons.org/licenses/>

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.

Emerging from below the social radar: Incipient evaluation in the North West of England¹

George Bailey 

University of Manchester, United Kingdom

This paper investigates the social meaning of post-nasal [g]-presence, a dialectal variant characteristic of North Western varieties of British English that is claimed to have local prestige. Using a matched-guise approach, this study reveals the absence of a community-wide norm with respect to how [ŋg] clusters are evaluated as well as diachronic change in the level of awareness speakers have of this variable. Older subjects are not sensitive to the dialectal status of [ŋg] and as a result do not evaluate it differently from [ŋ]; the local form is more accessible to evaluation among younger subjects, for whom the northern indexicality is stronger, but at this incipient stage of social meaning there is no agreement on what the content of this evaluation should be. The results speak to questions regarding the development of shared norms, their role in the speech community, and the granularity of social meaning more generally.

KEYWORDS: Social meaning, indexicality, variation, community, phonetics and phonology, velar nasal

INTRODUCTION

According to a foundational conceptualisation of the speech community, groups of speakers are defined not only by the use of certain linguistic features but also by adherence to a set of shared evaluative norms (Gumperz 1968; Labov 1972). More recent work has emphasised how normative regularity is constructed locally within particular communities of practice and how individuals exhibit stylistic agency within those communities (e.g. Eckert and

Address correspondence to: *George Bailey, Department of Linguistics and English Language, University of Manchester, Phonetics Lab, Room S1.24 Samuel Alexander Building, Oxford Road, Manchester, M13 9PP, United Kingdom*

george.bailey@manchester.ac.uk

Twitter: *@grbails*

McConnell-Ginet 1992; Eckert 2000), but it remains the case that a thorough understanding of a particular linguistic variable requires an account not only of its patterns in production but also of its broader social meaning that emerges through speaker–hearer interactions (Eckert and Labov 2017). Advances along these two lines of research can be mutually informative, and in light of this a number of well-studied linguistic variables have been subject to extensive analysis in the domains of both speech production and perception, e.g. ING (see Trudgill 1972; Labov 1989 on production, and Labov et al. 2006, 2011; Campbell-Kibler 2011b on perception), TH-fronting (see Baranowski and Turton 2015 on production, and Levon and Fox 2014 on perception), and T-glottalling (see Fabricius 2000; Straw and Patrick 2007 on production, and Schlee 2017 on perception).

This paper addresses the social evaluation of one particular feature of dialects spoken in the North West of England. ‘Velar nasal plus’ (hereafter VNP) refers to the variable presence of post-nasal [g] both word-finally as in *wrong* [rɔŋ] ~ [rɔŋg] and word-medially as in *singer* [sɪŋə] ~ [sɪŋgə]; despite recent advances in our understanding of how this variable behaves in speech production (see Watts 2005; Bailey 2018), we still know relatively little about how this dialectal form is actually evaluated by listeners. VNP is an interesting case study of social evaluation for a number of reasons: it is a rare case of a regional variant being favoured in more formal elicited discourse styles, leading to claims that it has overt local prestige (Beal 2008: 137). On the other hand, there are conflicting reports with respect to its social and stylistic stratification and the way in which such patterns reflect linguistic norms and standard language ideologies; the local [ŋg] form is favoured in more formal discourse styles but is also more frequent among working class speakers (Watts 2005). This of course contrasts with the widely attested correlation between social and stylistic variation where the form favoured by higher socioeconomic classes is also favoured in more careful styles of speech (Labov 2001). Finally, research into the social meaning of VNP may provide an explanatory mechanism behind a recent change in progress that sees increasing rates of [g]-presence before pause (see Bailey 2018); this could be an example of evaluation-driven change, particularly considering the salience of phrase-final environments.

In this paper, a matched-guise task is used to probe listener evaluations of [g]-presence, and the results indicate a striking lack of community-wide agreement. The evaluation of VNP is currently undergoing change: older subjects do not recognise [ŋg] as a northern form and do not evaluate it differently from [ŋ] in terms of perceived professionalism; although there is heightened awareness of the dialectal status of [ŋg] among younger subjects, this does not translate to uniform evaluation. I interpret this as reflecting an early stage of incipient social meaning; the awareness of [ŋg] as a marker of northern dialects is increasing but not yet strong enough to result in the shared community norm predicted by Labov’s Principle of Uniform Evaluation (2001: 214). This inter-speaker variation with respect to how [ŋg] is evaluated

could be further motivated by orthographic factors, with the presence of <g> in the spelling overriding the traditionally negative indexicalities of northern accents.

The results of this study have implications for our understanding of how shared norms are developed, their role in the speech community, and more generally for theories of indexicality with respect to non-standard or dialectal variants; the results are also pertinent to a number of current theoretical issues, such as the extent to which social evaluation can act as a driving force in the incrementation of sound change.

VELAR NASAL PLUS

'Velar nasal plus' is a term coined by Wells (1982: 365) to refer to the variable presence of post-nasal [ŋ] in dialects spoken across the North West and West Midlands regions of England; the geographic distribution of this non-coalesced [ŋŋ] form was established in the 1950s' Survey of English Dialects (Orton, Sanderson, and Widdowson 1978), and its presence has been independently attested in a number of varieties spoken throughout these regions: Liverpool (Knowles 1973), Cheshire (Watts 2005), Birmingham (Thorne 2003), Cannock (Heath 1980), the Black Country (Asprey 2015), etc.

The envelope of variation of VNP actually encompasses two environments, denoted hereafter by (ing) and (ng); the former refers to unstressed **-ing** clusters that in all other varieties of English exist as an alternation between [m] and [ŋ] in words such as *walking* or *building*, whilst the latter refers to stressed **ng** clusters in words such as *thing* or *hang*, which are of course invariably realised with the bare velar nasal form by speakers of other dialects. Although the social meaning of [g]-presence in (ing) has been subject to recent investigation (Schleef, Flynn, and Ramsammy 2015), there is no reason to believe that this meaning is shared across both environments, particularly as they differ so much in production. Where reported, rates of VNP as a realisation of the (ing) variable are as low as approximately 1 per cent in conversational styles, contrasting with the two-way alternation in (ng) which sees rates of [g]-presence as high as 40 per cent (Watts 2005).

Existing perceptual evidence

To this author's knowledge, the only study to explicitly address the evaluation of [g]-presence in (ng) is Newbrook's (1999) work in West Wirral, a region of Merseyside in North West England, where there exists a system of three competing influences from RP, Cheshire, and Liverpool (or 'Scouse') varieties of English.

In one task, Newbrook's informants were asked which variant they consider to be the norm, where norms are described as 'those forms regarded as

prestigious and/or as targets for emulation (in, for instance, formal settings)' (1999: 100). For 13 of the 17 variables included in this study, almost 100 per cent of the informants identify the RP form as the norm; crucially, word-medial *-ng-* and word-final *-ng* are among the four exceptions to this pattern. In the case of the former, a majority of informants orientate towards the local [ŋg] form, while for the latter the pattern of responses was more evenly split. Newbrook claims that cases where the RP form was rejected as a norm can be attributed to either 'conscious rejection', where speakers are fully aware of the dialectological facts but still reject the RP form as a prestigious variant, or 'confusion/ignorance', claimed to be more common, where speakers accept RP as the standard but aren't actually aware of what the RP form is.

In the second task, subjects were asked which form they use most often; self-report tasks are well-established measures of sociolinguistic prestige, with their results said to 'reflect adherence to the social norms of how speech should be pronounced rather than a report of actual use' (Labov 2001: 194). Although the results from this are less categorical in nature, there is still a strong preference for the RP form across most of the dialectal features under study. Once again, however, *-ng-* and *-ng* are among the exceptions to this pattern, with only 19 per cent of subjects reporting use of [ŋ] for the former; much like the norm-identification task, the responses were much more variable for word-final *-ng*. Results from these two complementary tests are illustrated in Figure 1.

The overall picture is one in which the community are in strong agreement for *-ng-*, with the local VNP variant almost unanimously endorsed as a norm and claimed to be the most frequently used form; in contrast to this, word-final *-ng* exhibits a great deal of within-community variation with respect to its overt sociolinguistic evaluation.

Inferences from production studies

Given our understanding of how patterns of variation in speech production can indirectly reflect the social evaluation of language, we can also look at how VNP is stratified along stylistic and sociodemographic dimensions for additional insight into its social meaning.

Stylistic stratification is often a strong indicator of how linguistic variants are evaluated, where increased attention paid to speech in formally elicited styles results in decreased use of non-standard forms and an increase in forms considered to be overtly prestigious (Labov 1972: 208). Based on this, it would seem that the non-coalesced [ŋg] form does carry local prestige in these dialect regions given the attested pattern of increased use in more conscious styles (Mathisen 1999; Schlee, Flynn, and Ramsammy 2015). However, this interpretation of style-shifting has been subject to criticism for being a simplistic and reactive-orientated view to intra-speaker variation (see Coupland 2007 for discussion); the unnatural and performative nature of

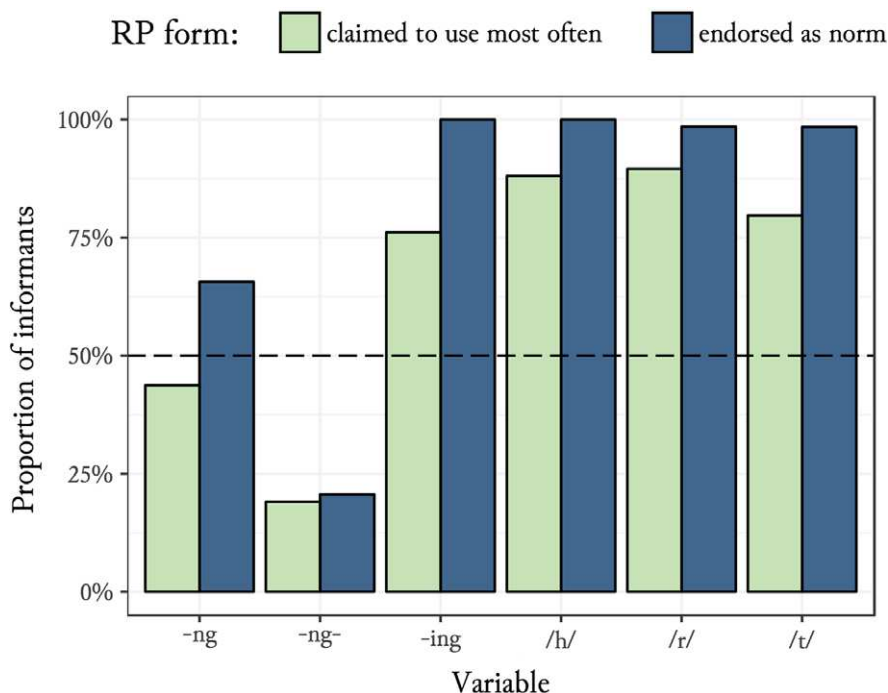


Figure 1: Results from the norm-identification and self-report tasks in West Wirral, Merseyside, including -ng (e.g. *sing*) and -ng- (e.g. *singer*). Based on Tables 5.2 and 5.3 from Newbrook (1999: 100–102)

word list elicitation presents speakers with an opportunity to project their identity through linguistic means à la Schilling-Estes’s (1998) proactive model of style-shifting. Interpreting stylistic behaviour in this way is further confounded by the collinearity between discourse formality (ranging from casual conversation to formal elicitation) and prosodic factors such as speech rate and intonational phrasing. This could be particularly problematic in the case of (ng) variation due to its sensitivity to pause (Bailey 2018).

Notions of prestige and ‘standard’ language use are reflected not only stylistically but also by stratification along sociodemographic lines. Use of [ŋg] reportedly correlates with socioeconomic status; using neighbourhood as a proxy for social class, Watts (2005) compares the rates of VNP in Wilmslow (typically middle class) and Colshaw (typically working class) and finds that use of the local [ŋg] form is much more frequent among speakers living in the latter, working class neighbourhood. While this is only an indirect measure of socioeconomic status, this observation is at least backed up by Mathisen (1999), who reports that working class speakers are leading the ‘revitalisation’ of VNP in Sandwell. However, far from being a defining feature of working

class vernacular, there are numerous claims throughout the dialectological literature that [ŋg] is actually used throughout the social scale. Wells (1982: 365) reports its presence for all but the 'very small layer of RP speakers at the top', and this is echoed by Wakelin (1984) and Heath (1980) in the Midlands, and by Knowles (1973: 295) in the North West city of Liverpool, who describes (ng) as a 'conflict of local and national norms'. It has also been described as having a relatively low social profile and not being a 'crashing local-accent feature which ambitious upwardly mobile northerners might want to try to modify or eliminate' (Wells 1997: 43).

In summary, the production studies of VNP do not provide a clear consensus regarding the social groups that favour the use of [ŋg]. The observation that it is favoured by working class speakers would suggest that it does not have overt sociolinguistic prestige in these communities; however, if the observations of stylistic stratification are taken at face value (i.e. as a reflection of style-shifting triggered by formality of discourse), this would indicate that [ŋg] does indeed have local prestige. As a result of this contradiction, and the relative lack of direct perceptual evidence, we still do not know which of [ŋ] or [ŋg] carries local prestige in these speech communities nor the exact social attributes indexed by VNP, thus motivating the present perception study.

METHODOLOGY

Experimental paradigm

This study adopts a matched-guise approach, following on from perceptual work on (ing) by Labov et al. (2006, 2011) in the U.S., and Levon and Fox (2014) and Schlee, Flynn, and Ramsammy (2015) in the U.K. Specifically, the 'newscaster' paradigm is used, where subjects are told they will hear different audition tapes from a speaker applying for a role as a news broadcaster. These tapes differ only in the presence/absence of post-nasal [g] and any differences in how they are rated by subjects can therefore be attributed to the variable presence of this dialectal feature. The newscaster context is important as it has been shown to be particularly effective in priming 'overtly prestigious sociolinguistic norms' (Levon and Fox 2014: 189) and will therefore reveal whether or not VNP has the overt local prestige that has previously been ascribed to it (Mathisen 1999; Beal 2008). This methodological approach is particularly applicable in a British context in light of actual cases of linguistic prejudice against northern news presenters such as the BBC's Steph McGovern (Furness 2013), and there is further evidence that roles of a similar professional nature are subject to the same linguistic scrutiny, particularly in the case of northern accents, e.g. in teaching (Baratta 2017). It has also been shown recently that matched-guise techniques are not confounded by speech style, with subjects reacting

similarly to the use of non-standard forms in conversational speech as in elicited speech (Tamminga 2017). This is an important finding and one that allows us to generalise results beyond this specific experimental context with a reasonable degree of confidence.

Rating scales

After listening to each 'audition tape', subjects are asked to rate the speaker on a number of 7-point Likert scales. As the concept of 'prestige' can be operationalised in a number of ways, these descriptive scales were carefully selected according to the success or otherwise of the aforementioned matched-guise studies of (ing).

In this study, the 'professionalism' scale is used, following on from Labov et al. (2006, 2011) in the U.S. and Levon and Fox (2014) in the U.K., but is supplemented by other descriptors that were found by Schlee, Flynn, and Ramsammy (2015) to be relevant in the evaluation of VNP as a realisation of (ing), namely 'education' and 'formality'. Finally, a 'northern' scale is included to investigate the extent to which subjects recognise this as a dialectal form; the inclusion of this scale could prove to be important given the speculative comments made by Newbrook (1999) regarding whether subjects who endorse [ŋg] are simply unaware of the dialectological facts (i.e. they fail to realise that this is a local vernacular form of North Western dialects) or they *are* aware but still accept it as an overtly prestigious form.

Stimuli

The recordings were made by a 56-year-old female speaker of Manchester English, who was asked to read out a number of fictional news headlines in a manner imitative of traditional news broadcasts. The headlines were read out once with [g] present for all (ng) tokens, and then once again with [g] absent for all tokens. These recordings were then cross-spliced using Praat (Boersma and Weenink 2017) to produce two guises for each headline group, which differ in the presence/absence of post-nasal [g] but are identical in every other respect. The recordings were carried out in a sound-attenuated booth, using a Sony PCM-M10 recorder and saved at a 44.1KHz sampling rate.

There are three passages, each containing two tokens of (ng). The three groups differ with respect to the morphophonological context in which (ng) appears, with one containing two pre-consonantal tokens (e.g. *sing tunes*), one containing two phrase-final tokens (e.g. [...] *sing.*), and one containing two word-medial pre-vocalic tokens (e.g. *singer*). These three environments were chosen because they have been shown to favour [g]-presence to differing degrees in production data, which could result in a context-dependent evaluation of VNP: it is used in pre-vocalic environments at much higher rates than in pre-consonantal contexts, and there are suggestions that its use is

increasing over time phrase-finally (Bailey 2018). The three headline groups are given below.

Phrase-final:

1. Scientists working on the Large Hadron Collider have today found new evidence that reveals what the universe was like at the time of the **Big Bang**.
2. In other news, weather experts warn that increased levels of global warming have led to the highest temperatures ever recorded in **Spring**.

Word-medial, pre-vocalic:

1. Justin Bieber came under fire yesterday after pictures surfaced online that show him spitting at a fan. The latest scandal has prompted widespread criticism of the Canadian **singer**.
2. In sport, Liverpool today dropped more points in the absence of their star player Sadio Mané, leading to claims that the club are too reliant on the right **winger**.

Word-final, pre-consonantal:

1. The government is demanding that zoos increase security after the latest incident saw an escaped gorilla attack a **young** child.
2. In politics, Theresa May has warned that Britain may not see the benefits of Brexit for many years, admitting that negotiations would be a **long** process.

Each passage also contains two tokens of unstressed (ing), which could present a possible confound as this environment overlaps with stressed (ng) in being a possible context for post-nasal [g]-presence. It is important to note, however, that outside of word list elicitation unstressed (ing) almost never surfaces with this non-coalesced realisation (rates as low as 1 per cent are reported by Watts 2005 and Schlee, Flynn, and Ramsammy 2015). These tokens were produced with the plain velar nasal by the speaker, and were left unaltered for the survey stimuli as this would be the most unmarked realisation for this style of read speech. That is, a token of [ɪŋg] would sound somewhat unnatural given its rarity in speech and would potentially attract attention away from the target (ng) segment, but equally a token of [ɪn] would likely be perceived as far too informal for newscaster speech, resulting in the same effect. Additionally, any influence of the velar nasal in (ing) would simply be to decrease sensitivity to (ng) (see Campbell-Kibler 2009 and Watson and Clark 2013 on ‘bullet-proofing’), as it is balanced across subjects and guises; it wouldn’t impact the directionality of the evaluation, just its magnitude.

Four other headline groups were included as distractors; these contain no tokens of (ng) and are again represented by two guises, although in this case the guises are simply two different readings of the same passage with no systematic differences between them. The only exception to this is the final distractor pair, which contains two tokens of intervocalic /t/ (in the words

water and *better*) realised as a glottal stop [ʔ] in one guise and a canonical alveolar plosive [t] in the other. This was included to provide a baseline against which the evaluation of (ng) can be compared, given the salience and well-established stigma of intervocalic /t/-glottalling in British English (Fabricius 2000).

Subjects and experimental design

In total, responses were collected from 35 subjects, all native speakers of British English born and raised (at least up to the age of 13) in the North West of England. This population sample is balanced by age, consisting of 18 younger subjects (with a mean age of 23) and 17 older subjects (mean age of 58). The survey, which was hosted on LimeSurvey using embedded sound files, was distributed on university mailing lists and social media platforms, and through friends and acquaintances.

This study employs a repeated measures design, where all subjects are exposed to all guises. It is counter-balanced to prevent potential confounds relating to the order of stimuli; for each [ŋ] ~ [ŋg] pair, half of the subjects are exposed to the [ŋ] guise first and the other half hear the [ŋg] guise first. The same counter-balancing procedure is applied to the environments themselves such that a third of subjects hear the pre-consonantal pair first, a third hear the pre-vocalic pair first, and a third hear the phrase-final pair first. The distractor pairs are presented between each (ng) pair, and the [t] ~ [ʔ] guises always come at the end of the experiment to ensure the highly informal [ʔ] guise doesn't impact subjects' later ratings for the target stimuli.

At the end of the survey, subjects were asked a number of biographical questions to collect information about their age, gender, and where they grew up; they were also asked if the words *singer* and *finger* rhyme in order to establish whether or not they actually have VNP in production. With this information, we can look for possible change over time with respect to the social meaning of (ng).

RESULTS

There are two ways of approaching the analysis of subjects' responses: using the absolute ratings awarded to the [ŋ] and [ŋg] guises, or calculating *difference scores* on a speaker-by-speaker basis (i.e. for each speaker calculate the difference in rating for each [ŋ] ~ [ŋg] guise pair). In the first part of this analysis, the absolute ratings will be used to provide an overview of the scores awarded to the VNP guises; the subsequent section will investigate the difference scores to provide a closer look at the extent to which the [ŋ] ~ [ŋg] guises elicit contrasting evaluation on an individual basis.

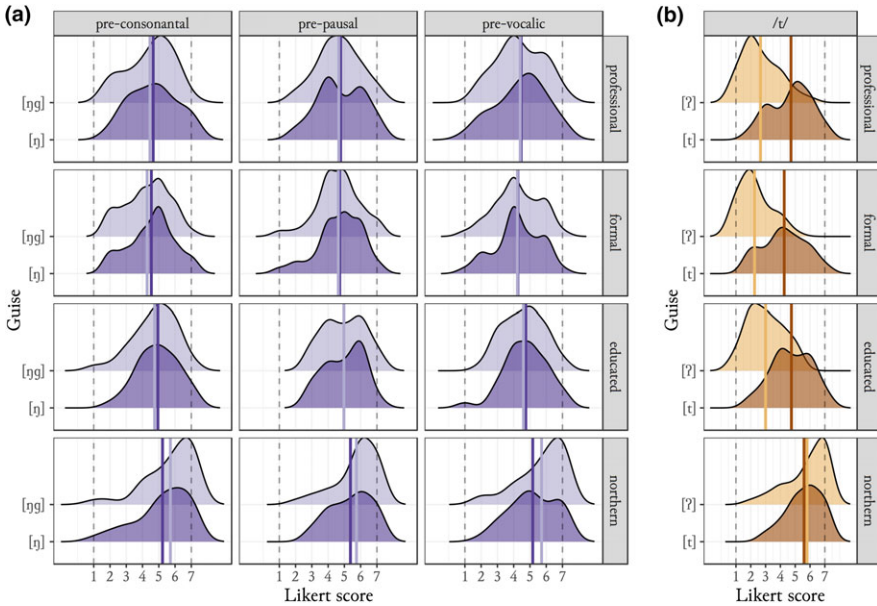


Figure 2: Distribution of ratings by guise and environment for all four scales. Vertical lines represent mean ratings. Velar nasal plus guises in (a); /t/ distractor guises in (b)

Absolute ratings

Figure 2a shows the distribution of ratings by guise and environment, for all four evaluative scales. What is immediately striking is how similar all of the distributions are with respect to their shape and the location of their peak; it seems to suggest that subjects are not evaluating the [ɲ] and [ŋɣ] guises differently, or at least that they are doing so to a very small degree.

The direction of this difference is, however, consistent across all environments. It is also uniform across scales in the case of professionalism, formality, and education. For these three scales, which can all be understood as measures of overt sociolinguistic prestige, it is actually the standard [ɲ] guise that receives the slightly more positive evaluation. In the case of the northern scale, the direction of this difference is unsurprisingly inverted, with [ŋɣ] heard as more northern than [ɲ]. The difference in northern ratings is also fairly small, but this is likely due to the fact that, owing to the presence of other northern features in the speaker's voice,² even the [ɲ] guise receives high ratings on this scale (averaging over 5 on the 7-point Likert scale across all environments).

Crucially, the small effect size evident in the case of VNP guises does not result from failings in the experimental design; in the case of the distractor [t] ~ [ʔ] pair, the matched-guise task elicits drastically different responses as one might expect. This is illustrated in Figure 2b, where the guise featuring glottal replacement of /t/ has average ratings as low as 2.2–2.9 on the professional, educated, and formal scales. The contrast between how these two variables elicit differences in evaluation suggests that VNP does not attract the same magnitude of social meaning as intervocalic /t/-glottalling, which is known to be widely stigmatised (Fabricius 2000).

Although these results seem to indicate that VNP is not subject to a great degree of social evaluation, the indexical properties of these two forms becomes clearer when (a) old and young age groups are considered separately, and (b) difference scores are used for greater insight at the level of the individual.

Difference scores

The within-subjects design of this experiment, where each subject is exposed to both guises in all environments, facilitates an investigation of social meaning on a subject-by-subject basis. For each subject ~ guise ~ environment pair, the

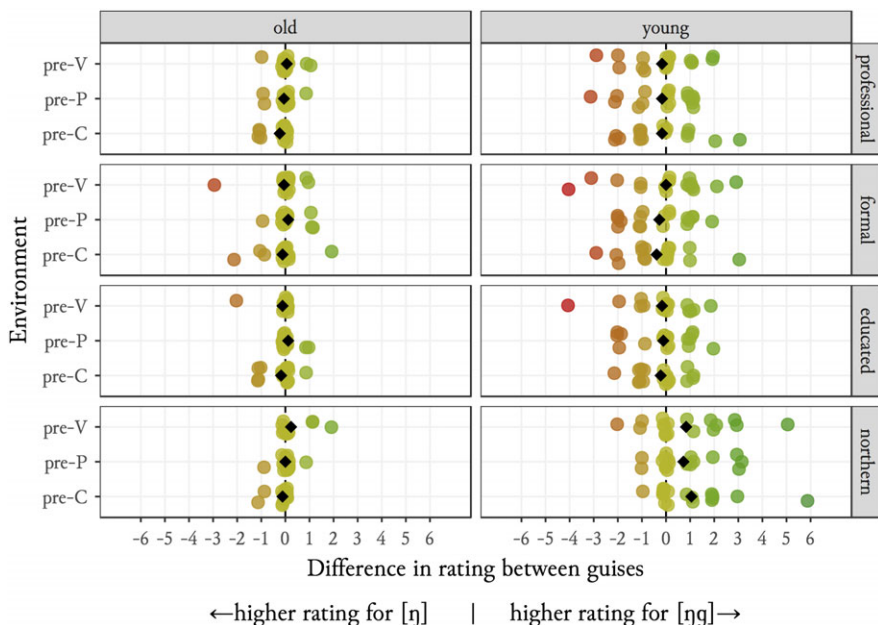


Figure 3: Difference scores by environment, scale, and age group. Diamond indicates mean difference score. Dotted line indicates neutrality (difference score = 0), where points to the right reflect higher ratings for [ŋg] and points to the left reflect higher ratings for [ŋ]

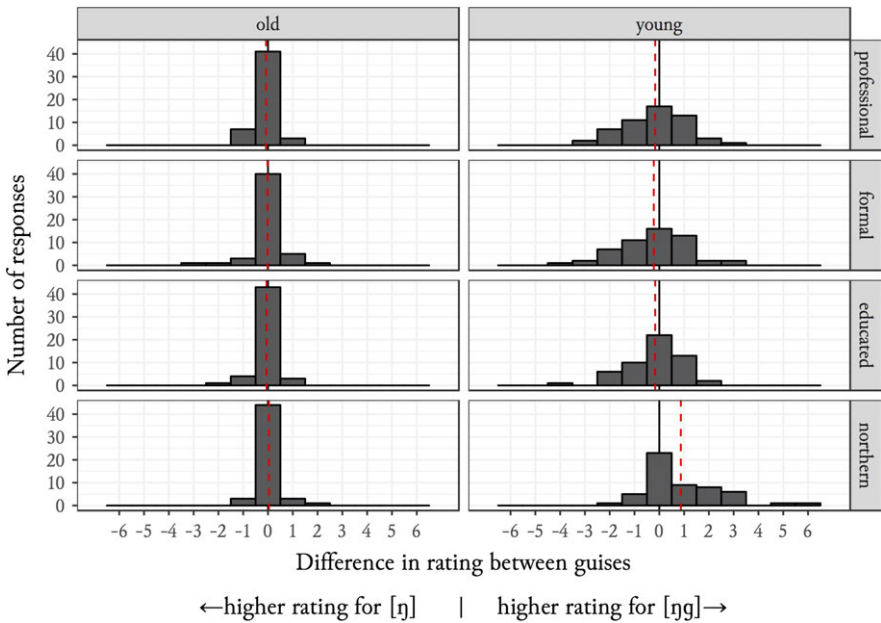


Figure 4: Distribution of difference scores by scale and age group. Dotted line indicates mean difference score

rating given to [ŋ] is subtracted from the rating given to [ŋŋ], such that a positive difference score corresponds to a higher rating for the local [ŋŋ] form, a negative score corresponds to a higher rating for [ŋ], and a score of 0 means that the subject rated both guises the same for that particular scale and environment.

As one might expect from the results already presented, many of these difference scores are indeed 0, reflecting the lack of social meaning ascribed to VNP. To be exact, 59 per cent of the 420 difference scores are 0, and 86 per cent of them fall within the ± 1 range. Interestingly, the deviations from 0 are not equally distributed across young and old subjects. When we consider these two social groups separately, as in Figures 3 and 4, it becomes apparent that not all members of the speech community are in agreement with respect to the social meaning of VNP.

The most immediately apparent pattern is the variation in difference scores among young subjects relative to older subjects. Among the latter, [ŋ] and [ŋŋ] do not differ with respect to how they index professionalism, education, formality, or even northernness. Younger subjects, however, are much more likely to rate these two variants differently on these scales, suggesting that the variable has greater social meaning among the younger generations. This is further quantified by comparing measures of central tendency between the two age groups (SD = 0.54 for old subjects' difference scores, cf. 1.43 for young). In

terms of the direction (i.e. polarity) of these difference scores, what is perhaps most curious is that even among young subjects there is disagreement; there is only a slight trend towards negative values for the scales that measure overt prestige (i.e. professionalism, education, and formality), reflecting a more positive indexicality of [ŋ] relative to [ŋg], but overall the variation in values is striking.

For the northern scale, there is more consistency among young subjects in terms of the spread of negative and positive difference scores (25 positive, cf. 6 negative); this suggests that they at least agree on [ŋg] as a feature of northern dialects, but crucially this does not translate to uniform evaluation along the scales that prime overt prestige. There is also no correlation between the northern and professional difference scores among young subjects (Spearman's $r_s = -0.09$, $p = 0.53$); that is, it is not the case that higher northern scores predict lower professional ratings and lower northern scores predict higher professional ratings.

It should also be pointed out that, as Figure 3 illustrates, this contrasting behaviour of young and old subjects is not restricted to a particular environment; in fact, all three morphophonological environments included in this study behave in largely the same way, despite the prior prediction that pre-pausal [ŋg] may behave differently due to the ongoing change in production.

To test the statistical significance of these effects, two mixed-effects linear regression models were fit to the difference scores: one to test the effect of age on *professionalism* (specifically the increase in variation), and one to test the effect of age on *northernness* (specifically the increase in value).

Because in the former case the hypothesis under consideration is simply an increase in the magnitude of the difference score, regardless of its direction (i.e. whether it is negative or positive), the polarity was removed from the dependent variable. That is, the model does not distinguish between a value of -3 (rating [ŋ] as more professional than [ŋg]) and a value of $+3$ (rating [ŋg] as more professional than [ŋ]), since in both cases the magnitude of the difference score (i.e. deviation from 0) is the same. In the case of the northern scale, we are testing for a specific direction of the effect (that younger subjects are more likely to rate [ŋg] higher than [ŋ] relative to older subjects); as a result, this model uses the unchanged values. Both models contain fixed effects of *age group*, *environment*, and their interaction; they also include a random intercept of *subject* to account for the within-subjects experimental design.

The results in Table 1 show that for both the professional and the northern scales there is a significant effect of subject age. The positive coefficients indicate that in the case of the former, there is a greater difference between [ŋ] and [ŋg] on the professional scale for younger subjects; in the case of the latter, the extent to which [ŋg] is heard as more northern than [ŋ] is greater among young subjects relative to older listeners. In neither case is there a significant

Table 1: Mixed-effects linear regression coefficients for (a) the northern scale, and (b) the professional scale; difference score as the dependent variable in (a), deviation from 0 as the dependent variable in (b). Random intercept of subject. Reference level of *old* and *pre-consonantal*

	Estimate	Std. Error	Estimated df	<i>t</i> -value	<i>p</i> -value
(a)					
Intercept	-0.1176	0.2799	63.921	-0.4203	0.6754
Age group					
young	1.1732	0.3903	63.921	3.0056	0.0035**
Environment					
pre-pausal	0.1176	0.2732	66	0.4307	0.6678
pre-vocalic	0.3529	0.2732	66	1.2920	0.1999
Age × Environment					
young:pre-pausal	-0.4510	0.3809	66	-1.1839	0.2398
young:pre-vocalic	-0.5752	0.3809	66	-1.5099	0.1349
(b)					
Intercept	0.2353	0.1656	88	1.4213	0.1589
Age group					
young	0.8203	0.2309	88	3.5532	<0.001***
Environment					
pre-pausal	-0.1176	0.2028	66	-0.5802	0.5633
pre-vocalic	-0.0588	0.2028	66	-0.2901	0.7724
Age × Environment					
young:pre-pausal	0.0065	0.2828	66	0.0231	0.9816
young:pre-vocalic	-0.0523	0.2828	66	-0.1849	0.8537

p values: ***<.001; **<.01; *<.05.

interaction between age and environment, nor a significant main effect of environment itself (even when removing the interaction and including them as independent predictors). The evaluation of VNP, and in particular this change in its evaluation across generations, is uniform across all morphophonological environments – an important point that will be further discussed later in this paper.

DISCUSSION

The results of this study reveal a great deal about the salience of VNP, and how this has increased over time to give rise to social meaning. Furthermore, the lack of agreement with respect to certain aspects of this meaning, in particular the overt evaluation of [g]-presence, speaks to questions about the indexicality of this variable and of northern accents more generally. The uniformity across morphophonological environments also has implications for our understanding of the granularity of evaluation. The following discussion will explore all three of these points in closer detail.

Salience

Generally speaking, it is clear to see that VNP is not a salient feature, and that as a result of this it does not evoke the same degree of evaluation as more salient phonological variables such as /t/-glottalling, which was included not just as a distractor but to provide a baseline for such comparisons.

However, despite the popularity of 'salience' in the sociolinguistic literature, it is not straightforward to operationalise or indeed quantify this concept. Jaeger and Weatherholtz (2016: 3) define the salience of a linguistic variable as 'a function of its (perceived) informativeness about social group membership', and in doing so propose a measure to quantify this concept in terms of surprisal and new information content. Alternatively, Kerswill and Williams (2002: 81) defines it as the extent to which a linguistic form is 'in some way perceptually and cognitively prominent', and a thorough discussion of other definitions is provided by Honeybone and Watson (2013). Trudgill (1986: 11) proposes four criteria that linguistic variables should meet in order to be considered salient; they must:

1. be taking part in ongoing linguistic change
2. involve an alternation between forms that are perceptually very different with respect to their phonetic realisation
3. be phonologically contrastive
4. involve a 'standard' variant, particularly one that is reflected orthographically.

Applying these conditions to the case of (ng), it is clear to see why this variable might not have the same degree of salience as other variable phenomena. It is undergoing change in progress but this is restricted to one prosodically defined environment, it is not contrastive but rather purely allophonic, and with respect to (4) it is actually the local [ŋg] variant that arguably more closely resembles the orthography.

There are a number of other factors that have been argued to influence the salience of a linguistic variable, such as frequency of occurrence (Bardovi-Harlig 1987 claims that more frequent forms have greater salience) or prosodic prominence (Yaeger-Dror 1993 claims that forms in prosodically strong positions, such as initial in the word, are more salient). Both lend further support to the proposed lack of salience of (ng), which is relatively infrequent in conversation and never occurs word-initially.

However, all of these testable criteria presuppose that salience is a static property of linguistic variation, which is not necessarily the case. More recent work has argued for a dynamic approach to sociolinguistic salience, determined by contextual factors such as when and where a variant is used in discourse, the interlocutor who uses it, and the listener's past experience and prior expectations of the distribution of the variant in question (Drager and Kirtley 2016; Hay, Drager, and Gibson 2018). In this way, salience is

intrinsically linked to context-specific probabilities of use and therefore the extent to which a variant is unexpected in a stretch of discourse, with respect to both social and linguistic factors.

Despite the importance of approaching salience as a dynamic property, it remains the case that certain linguistic variables are generally more salient in a speech community than others. This is reflected directly by Labov's marker ~ indicator ~ stereotype typology, determined by the degree to which a linguistic variable exhibits stylistic/social stratification and the level of metalinguistic commentary it receives (Labov 1972). As such, I suggest a distinction between 'global' and 'local' salience, both of which contribute to the overall degree of awareness of each instance of a particular sociolinguistic variable. With high global salience, combined with strong indexical value, a variable may eventually reach the point of enregisterment (Agha 2004; Johnstone 2016).

Since local salience is not static, it does not make sense to talk about it undergoing community-wide change. Rather, an apparent time interpretation of this paper's results suggest a change in the *global* salience of this variable. The variable as a whole is becoming a more salient dialectal feature and as such is becoming increasingly associated with northern accents over time. This heightened sensitivity to the dialectal status of [ŋg] could arise from a number of mechanisms, such as increased mobility and therefore more contact with speakers of non-northern varieties. It could also be the case that this alternation is more salient for young speakers because among the younger generations the rates of [g]-presence are much higher; that is, by using it more in production northern speakers may now be more aware of its absence among their non-northern peers.

Variation in meaning

Although the increase in sociolinguistic salience has made this variable more accessible to social meaning, there is no widespread agreement on what this meaning should be. At a community-wide level, the evaluation is trending very slightly towards a standard-driven norm where subjects penalise the local form in terms of perceived professionalism; however, at the level of the individual there is still a great deal of variance even among those who agree that [ŋg] is northern-sounding. It is important to consider why this is the case.

It is relatively straightforward to understand why subjects may hear [ŋg] as more northern and then rate it lower on the professional scale; regional varieties of British English are often stigmatised, and this is particularly the case for northern dialects (Furness 2013; Baratta 2017). The survey conducted by Coupland and Bishop (2007) actually suggests that Manchester and Liverpool English, both of which fall within the VNP isogloss, are particularly stigmatised; they are ranked 27th and 30th

respectively for social attractiveness out of the 34 varieties included in the study.³ Therefore, the evaluation of VNP likely arises through second-order indexicalities with northernness (Silverstein 2003) and the fact that in England an RP-norm still pervades professional settings such as politics or, in this case, newsreading.

It is somewhat more difficult to account for the cases where subjects hear [ŋg] as not only more northern but also more professional and/or educated than the standard [ŋ] form. In the case of this particular variable, there are a number of possible explanations however. There could be orthographic influences due to the presence of <g> in spelling; subjects may be of the belief that a realisation with [g]-presence is more 'correct' because it more closely reflects the orthographic representation of these clusters. Related to this, it should also be noted that [ŋg] is the more historically conservative form, once present across all dialects of British English, and that those varieties without post-nasal [g] (including RP) are actually featuring the innovative variant.

The generalisation also exists that in many cases dialectal or variable processes of segment lenition (particularly deletion) carry social stigma, e.g. /h/-dropping, /t/-glottalling, and (ing)⁴; that is, the prescriptivist idea exists that dropping sounds is characteristic of 'lazy' or 'incorrect' speech. It is possible that, because of this pressure, some of these young speakers in the North West still think of [ŋg] as the 'correct' pronunciation, despite knowing that it is a non-standard dialectal variant. This is made more likely by considering its frequent use in the kind of clear speech styles elicited by word lists and other such tasks; the notion of clear speech variants does not completely overlap with concepts of overt prestige or standard language, despite frequent conflation of the three. This argument receives further support from the observation that [ŋg] is becoming increasingly frequent in pre-pausal environments (Bailey 2018), which are likely to be associated with the kind of citation forms that are characteristic of 'clear speech'.

An anonymous reviewer raises the possibility that the lack of agreement among younger subjects arises because they are in fact members of different speech communities within the North West, which evaluate (ng) in different ways. If this is the case, and there is lack of agreement because these North Western subjects belong to separate communities, this would mean that the observed developments reflect independent but simultaneous changes in opposite directions, which would be highly unlikely; while this possibility cannot be ruled out directly, there are a number of arguments against this explanation.

Firstly, descriptive studies of this variable across the North West, where they test the same predictors, largely report similar effects with respect to social and internal factors (e.g. Knowles 1973 in Liverpool; Watts 2005 in Cheshire; Bailey 2018 in Manchester and Blackburn; see also Mathisen 1999 in Sandwell, West Midlands). It would be unlikely that the evaluation of this variable exhibits diversity within the North West region given that this region

behaves as a homogenous community with respect to the production of (ng). It is also important to recall that there is evaluative uniformity across the older generations, which would not be predicted if the divergence among younger subjects actually reflects their belonging to different communities.

Furthermore, this regional uniformity is confirmed with independent perceptual evidence from the Newbrook (1999) study discussed earlier; the results point to a similar state of affairs in one specific community, West Wirral, where there is a clear lack of agreement in the evaluation of word-final (ng). Given the forced choice nature of the task, this either reflects a lack of uniformity in evaluation, or an absence of any evaluation and as such subjects are responding randomly. Either way, the results corroborate the argument made in this paper, providing further evidence that the results described here are generalisable to the whole of this region.

What do these results mean, then, for the concept of the speech community? This paper addresses only one variable, and as such the lack of normative regularity should not be taken as strong critique against Labov's (1972) definition of the speech community as a group of individuals with shared evaluative norms. A speech community is a difficult concept to define, particularly with the move towards more locally relevant categories of group membership in the second and third waves of variationist study, but it is clear that it cannot be defined by one single property. Instead, it should be viewed as a combination of factors, including uniform evaluation, geographic proximity, density of contact (e.g. Bloomfield 1933; Gumperz 1971), shared patterns of production (e.g. structured differentiation of stable variables along sociodemographic lines), and shared participation in ongoing change.

However, the results do suggest that the Principle of Uniform Evaluation (Labov 2001: 214) should be taken with caution, since salience and social meaning are clearly dynamic properties of linguistic variation that are subject to change. It may be the case that uniform evaluation only holds when the social meaning of a variable is itself stable. Because the social meaning of VNP is relatively new and still being developed – with ongoing change in its social salience and the degree to which it indexes group membership among northern speakers – it has not yet reached a stable stage of uniform evaluation. It should also be noted that Labov's Principle of Uniform Evaluation is based primarily on uniform patterns of synchronic style-shifting, which this variable does in fact exhibit (Mathisen 1999; Schlee, Flynn, and Ramsamy 2015); as discussed earlier, however, this is an indirect proxy of evaluation confounded by prosodic differences in elicitation tasks, and this paper shows that style-shifting is not always corroborated by direct attitudinal evidence.

Indexicality of (ng)

The results presented in this paper point to some degree of directionality and order of causality in the development of multi-layered indexical fields. The

move towards community-level agreement with respect to the northern status of [ŋg] suggests that this stage is a prerequisite for the other social meanings that follow from this association, which are still being developed towards a community-wide norm.

This evaluative behaviour can be interpreted under the indexical frameworks proposed by Ochs (1992, 1996), who distinguishes direct and indirect indexicality, and Silverstein (2003), who proposes multiple orders of indexicality.

The results suggest that higher order indexicalities are perhaps more individualistic and therefore more likely to exhibit inter-speaker variation. That is, the subjects from this study who show clear awareness that [ŋg] is a dialectal variant are all in agreement that it is a northern form – which is unsurprising, given that this is based on objective dialectological facts – but as one climbs up into higher order indexicalities, there is more potential for individual ideologies to shape the indexical field.

This is particularly applicable to (ng), hence the complete absence of agreement in evaluation, due to what appears to be its incipient stage of social meaning. We are beginning to see an association emerge between this regional form and the varieties of English spoken in the North West of England; however, the fact that older generations within this community are still blind to the dialectal status of this feature suggests that this association has not long been established. Over time, particularly when this first-order indexicality is shared among all members of the community, there may also be a move towards community-wide agreement at higher orders; however, Eckert (2008: 467) has previously argued that variation in the content of such evaluation is still possible even when there is uniformity at lower orders, arguing that ‘while the entire population might agree on first-order indexicality – who uses what variant – the evaluation of that differentiation can differ across the population’.

It is also likely that the indexical field of this variable is much more complex than a simple association with northernness and a perception of prestige that stems from this association; as Schlee, Flynn, and Ramsammy (2015) suggest for [g]-presence in the unstressed (ing) environment, for some subjects use of this local variant may index a type of ‘over-articulate’ stance, which may overlap with the indexical field of its presence in the (ng) environment, thus resulting in some of the negative evaluations found in this paper and contributing further to the inter-speaker variation with respect to how this variable is evaluated.

The normative irregularity of (ng) adds to a growing body of evidence, suggesting that indexicality is not a ‘fixed property’ of linguistic variables but is in fact a dynamic semiotic field prone to change and reinterpretation: Bucholtz (2009) reports indexical change in the use of *guey* in Spanish, and parallels can be drawn with a number of studies that have shown distinct indexical fields tied to a variable’s use in particular registers and dependent on listener-specific

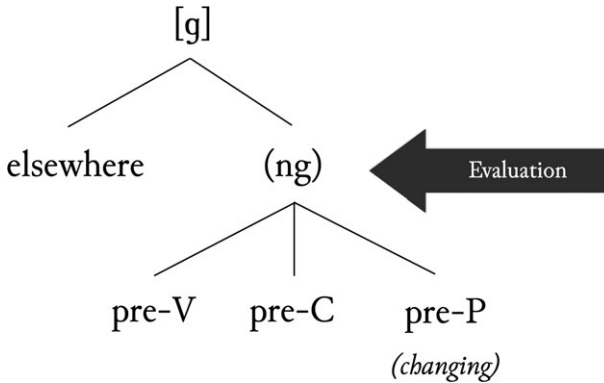


Figure 5: A typology of velar nasal plus granularity, moving from more coarse-grained (top) to more fine-grained (bottom)

interpretations and ideologies (Campbell-Kibler 2008, 2011a; Podesva 2008; Moore and Podesva 2009; Pharao et al. 2014).

The granularity of social meaning

A notable result is the uniformity with which VNP is evaluated across different phonological environments. The lack of interaction between age group and environment (differentiating between pre-consonantal, pre-pausal, and word-medial intervocalic contexts) indicates that whilst the overall alternation between [g]-presence and absence has accrued social meaning over time, this meaning is not concentrated on its use in a specific environment. This is particularly interesting in light of the ongoing change taking place pre-pausally; in Bailey (2018), it is shown that rates of [g]-presence are increasing over time in a 'pre-pausal' environment conditioned by temporal and possibly prosodic factors. The observation in this study that [g]-presence clearly does not carry overt or local prestige, coupled with the fact that its evaluation in pre-pausal contexts is comparable to all others, suggests that this change is *not* evaluation driven. Rather, it is proceeding fully under the radar.

This observation that the change itself is not subject to evaluation has further implications for our understanding of social meaning and the granularity with which it applies. An important question in the study of evaluation and its role in the incrementation of sound change, most recently addressed in Eckert and Labov (2017), is what objects of linguistic variation are actually subject to evaluation. Eckert and Labov argue, based on the Northern Cities Shift, that whilst evaluation can attach to the realisations of individual phonological units, it is blind to the more abstract components of linguistic variation, such as phonological systems of chain shifts and mergers that concern the relationship between phonemes. This finds further support in the present study of VNP, where

the overall alternation between [g]-presence and absence (i.e. the concrete phonetic element) is beginning to accrue social meaning, but the more fine-grained change conditioned by pause and prosody is not.

These levels of granularity are represented diagrammatically in Figure 5, moving from more coarse-grained to more fine-grained from top to bottom: the most coarse-grained level is simply the phonetic [g] sound, but as Eckert and Labov (2017: 481) point out, it isn't the sound itself that is evaluated but rather 'the use of that sound as the particular allophone representing a certain phoneme'. In this case, we see that it is the use of [g] in underlying /ŋg/ clusters, represented using traditional sociolinguistic variable notation as (ng), which accrues meaning. The most fine-grained level, the behaviour of (ng) in specific environments differentiated by segmental and prosodic factors, is also not subject to evaluation. In sum, these results suggest that social meaning is somewhat cruder than linguistic variation in production in that it applies to the presence/absence of particular sounds but not to the ways in which their variation is conditioned; it often attaches to some intermediate level that is neither too coarse nor too granular.

While social evaluation may play a role in processes of linguistic change, this issue of granularity suggests that its ability to act as a driving force in the intergenerational incrementation of sound change is highly dependent on the variable in question (see Bermúdez-Otero accepted for further discussion of social evaluation and its limitations in accounting for patterns of sound change).

CONCLUSION

This study marked the first experimental investigation into the social meaning of (ng). Like many other sociolinguistic variables, our prior understanding of how listeners evaluate this dialectal form was speculative at best due to the reliance on inferences made from production studies and how patterns of variation can reflect sociolinguistic norms and standard language ideologies. These earlier studies argued that [g]-presence is a local prestige variant (Mathisen 1999; Beal 2008), but the results of the matched-guise task reported here cast doubt on these claims.

The observed differences between young and old subjects suggest that VNP is a case of incipient social meaning, with evaluation present among young subjects but not so for the older generations. Members of these North Western speech communities are becoming increasingly aware of this variable post-nasal [g], specifically its status as a marker of northern dialects. However, although the increased salience of [ŋg] makes this variable more accessible to social evaluation, there is no consistency with respect to the polarity of responses; while some subjects rate [ŋ] as more professional, used as a proxy for overt sociolinguistic prestige, others actually rate [ŋg] more positively. Whether or not this lack of community-wide agreement is a characteristic

feature of incipient social meaning (i.e. an early stage of developing shared sociolinguistic norms) remains to be seen, and can only be ascertained through further study of comparable variables. It may be that such disagreement only arises in the case of this variable where there are clearly antagonistic forces promoting both variants in the alternation: on the one hand [ŋg] is associated with northernness and, by association, decreased professionalism, but on the other hand it can also be perceived as a clear-speech variant closer to the orthographic norm, in part due to its frequency of occurrence in citation environments. If this lack of uniform evaluation is indeed characteristic of the early stages of social meaning more generally, it naturally follows that such disagreement should be ephemeral and that with time the scales should tip in favour of one form over the other. As such, it would be fruitful to return to this variable in future work and provide longitudinal insight into the diachronic development of this evaluation.

The fact that listener attitudes towards [g]-presence are not sensitive to contextual factors also indicates that the ongoing change taking place pre-pausally is not evaluation-driven; the implications of this finding are not limited to this particular variable, however, as it also lends further empirical support to recent claims from Eckert and Labov (2017) that not all objects of linguistic variation are accessible to social evaluation. Although linguistic variation is fine-grained at the level of production, the way in which it is subject to evaluation from listeners is relatively coarse. Listeners only attend to concrete aspects of variation, in this case the overall alternation between presence/absence of a particular segment; evaluation is blind to contextual factors despite their crucial role in conditioning the presence of [g] in speech production, and by extension also blind to the ongoing change taking place in a subset of the environments in which post-nasal [g] occurs. Consequently, the results support theories of sound change that foreground mechanical factors such as density of communication, in which social evaluation plays a more peripheral role.

NOTES

1. I would like to thank a number of people who have provided insightful feedback during the development of this paper: Ricardo Bermúdez-Otero, Maciej Baranowski, the audiences at the 8th Northern Englishes Workshop at Newcastle University and the 2018 Manchester Forum in Linguistics, and the editors and reviewers at the *Journal of Sociolinguistics*. This work would also not have been possible without the financial support of the Economic and Social Research Council (NWDTC studentship ES/J500094/1), the subjects who took part in the survey, and of course my (very professional) newsreader. Any remaining errors are my own.
2. The passages contained a number of instances in which the speaker exhibited other northern features, such as the lack of distinction between the FOOT-STRUT

and TRAP-BATH lexical sets in words such as *young* and *after*, respectively. Other than these supra-regional features, there was an avoidance of non-standard forms such as vowel monophthongisation, post-vocalic /ɪ/, fronted /θ, ð/, or dropped /h/, in order to ensure listeners were not distracted by clustering of other regional or 'informal' features (Leach, Watson, and Gnevsheva 2016).

3. Velar nasal plus is also a feature of Birmingham English and the varieties spoken in the Black Country, which are actually the most stigmatised dialects in the entire study by Coupland and Bishop (2007); they are ranked 34th and 33rd respectively.
4. Of course variation between [m] and [ɪŋ] is not actually a case of segment deletion, but it remains the case that most non-specialists refer to the former as 'g-dropping'.

REFERENCES

- Agha, Asif 2004. Registers of language. In Alessandro Duranti (ed.) *A Companion to Linguistic Anthropology*. Malden, Massachusetts: Blackwell. 23–45.
- Asprey, Esther 2015. The West Midlands. In Raymond Hickey (ed.) *Researching Northern English*. Amsterdam: John Benjamins. 393–416.
- Bailey, George. 2018. Ki(ng) in the north: Effects of duration, boundary and pause on post-nasal [g]-presence. Manuscript submitted for publication.
- Baranowski, Maciej and Danielle Turton, 2015. Manchester English. In Raymond Hickey (ed.) *Researching Northern English*. Amsterdam: John Benjamins. 293–316.
- Baratta, Alex 2017. Accent and linguistic prejudice within British teacher training. *Journal of Language, Identity and Education*, 16, 416–423.
- Bardovi-Harlig, Kathleen 1987. Markedness and salience in second-language acquisition. *Language Learning*, 37, 385–407.
- Beal, Joan C. 2008. English dialects in the north of England: Phonology. In Bernd Kortmann and Clive Upton (eds.) *Varieties of English. Vol. 1: The British Isles*. Berlin: Mouton de Gruyter. 122–144.
- Bermúdez-Otero, Ricardo. accepted. *Individual differences and the explanation of sound change*. *Glossa: A Journal of General Linguistics*.
- Bloomfield, Leonard. 1933. *Language*. New York: Holt.
- Boersma, Paul and David Weenink. 2017. Praat: Doing phonetics by computer. Available at <http://www.praat.org/>.
- Bucholtz, Mary 2009. From stance to style. In Alexandra Jaffe (ed.) *Stance: Sociolinguistic Perspectives*. Oxford, U.K.: Oxford University Press. 146–170.
- Campbell-Kibler, Kathryn 2008. I'll be the judge of that: Diversity in social perceptions of (ING). *Language in Society*, 37, 637–659.
- Campbell-Kibler, Kathryn 2009. The nature of sociolinguistic perception. *Language Variation and Change*, 21, 135–156.
- Campbell-Kibler, Kathryn 2011a. Intersecting variables and perceived sexual orientation in men. *American Speech*, 86, 52–68.
- Campbell-Kibler, Kathryn 2011b. The sociolinguistic variant as a carrier of social meaning. *Language Variation and Change*, 22, 423–441.
- Coupland, Nikolas 2007. *Style: Language Variation and Identity*. Cambridge, U.K.: Cambridge University Press.

- Coupland, Nikolas and Hywel Bishop. 2007. Ideologised values for British accents. *Journal of Sociolinguistics*, 11, 74–93.
- Drager, Katie and M. Joelle Kirtley 2016. Awareness, salience, and stereotypes in exemplar-based models of speech production and perception. In Anna M. Babel (ed.) *Awareness and Control in Sociolinguistic Research*. Cambridge, U.K.: Cambridge University Press. 1–24.
- Eckert, Penelope 2000. *Linguistic Variation as Social Practice*. Oxford, U.K.: Blackwell.
- Eckert, Penelope 2008. Variation and the indexical field. *Journal of Sociolinguistics*, 12, 453–476.
- Eckert, Penelope and William Labov. 2017. Phonetics, phonology and social meaning. *Journal of Sociolinguistics*, 21, 467–496.
- Eckert, Penelope and Sally McConnell-Ginet. 1992. Think practically, look locally: Language and gender as community-based practice. *Annual Review of Anthropology*, 21, 461–490.
- Fabricius, Anne. 2000. T-glottalling: Between stigma and prestige. A sociolinguistic study of modern RP. Doctoral dissertation, Copenhagen Business School.
- Furness, Hannah. 2013. BBC news presenter thought ‘too common for telly’ because of northern accent. Available at <http://www.telegraph.co.uk/culture/tvandradio/10185882/BBC-news-presenter-thought-too-common-for-telly-because-of-northern-accent.html>.
- Gumperz, John J. 1968. The speech community. In David L. Sills (ed.) *International Encyclopedia of the Social Sciences*. New York: Macmillan. 381–386.
- Gumperz, John J. 1971. *Language in Social Groups*. Stanford, California: Stanford University Press.
- Hay, Jennifer, Katie Drager, and Andy Gibson. 2018. Hearing r-sandhi: The role of past experience. *Language*, 94, 360–404.
- Heath, Christopher 1980. *The Pronunciation of English in Cannock, Staffordshire*. Oxford, U.K.: Blackwell.
- Honeybone, Patrick and Kevin Watson. 2013. Salience and the sociolinguistics of Scouse spelling: Exploring the phonology of the Contemporary Humorous Localised Dialect Literature of Liverpool. *English World-Wide*, 34, 305–340.
- Jaeger, T. Florian and Kodi Weatherholtz. 2016. What the heck is salience? How predictive language processing contributes to sociolinguistic perception. *Frontiers in Psychology*, 7, 1115.
- Johnstone, Barbara 2016. Enregisterment: How linguistic items become linked with ways of speaking. *Language and Linguistics Compass*, 10, 632–643.
- Kerswill, Paul and Ann Williams. 2002. ‘Salience’ as an explanatory factor in language change: Evidence from dialect levelling in urban England. In Mari C. Jones and Edith Esch (eds.) *Language Change: The Interplay of Internal, External and Extra-Linguistic Factors*. Berlin: Mouton de Gruyter. 81–110.
- Knowles, Gerald. 1973. Scouse: The urban dialect of Liverpool. Doctoral dissertation, University of Leeds, U.K.
- Labov, William 1972. *Sociolinguistic Patterns*. Philadelphia, Pennsylvania: University of Pennsylvania Press.
- Labov, William 1989. The child as linguistic historian. *Language Variation and Change*, 1, 85–97.
- Labov, William 2001. *Principles of Linguistic Change: Social Factors*. Malden, Massachusetts: Blackwell.
- Labov, William, Sharon Ash, Maciej Baranowski, Naomi Nagy, and Maya Ravindranath. 2006. Listeners’ sensitivity to the frequency of sociolinguistic variables. *University of Pennsylvania Working Papers in Linguistics* 12: 105–129.

- Labov, William, Sharon Ash, Maya Ravindranath, Tracey Weldon, Maciej Baranowski, and Naomi Nagy. 2011. Properties of the sociolinguistic monitor. *Journal of Sociolinguistics*, 15, 431–463.
- Leach, Hannah, Kevin Watson, and Ksenia Gnevshva. 2016. Perceptual dialectology in northern England: Accent recognition, geographical proximity and cultural prominence. *Journal of Sociolinguistics*, 20, 192–211.
- Levon, Erez and Sue Fox. 2014. Social salience and the sociolinguistic monitor: A case study of ING and TH-fronting in Britain. *Journal of English Linguistics*, 42, 185–217.
- Mathisen, Anne G. 1999. Sandwell, West Midlands: Ambiguous perspectives on gender patterns and models of change. In Paul Foulkes and Gerard Docherty (eds.) *Urban Voices: Accent Studies in the British Isles*. London: Arnold. 107–123.
- Moore, Emma and Robert Podesva. 2009. Style, indexicality, and the social meaning of tag questions. *Language in Society*, 38, 447–485.
- Newbrook, Mark 1999. West Wirral: Norms, self reports and usage. In Paul Foulkes and Gerard Docherty (eds.) *Urban Voices: Accent Studies in the British Isles*. London: Arnold. 90–106.
- Ochs, Elinor 1992. Indexing gender. In Alessandro Duranti and Charles Goodwin (eds.) *Rethinking Context: Language as an Interactive Phenomenon*. Cambridge, U.K.: Cambridge University Press. 335–358.
- Ochs, Elinor 1996. Linguistic resources for socializing humanity. In John J. Gumperz and Stephen Levinson (eds.) *Rethinking Linguistic Relativity*. Cambridge, U.K.: Cambridge University Press. 407–437.
- Orton, Harold, Stewart Sanderson, and John Widdowson. 1978. *The Linguistic Atlas of England*. London: Croom Helm.
- Pharao, Nicolai, Marie Maegaard, Janus Spindler Møller, and Tore Kristiansen. 2014. Indexical meanings of [s+] among Copenhagen youth: Social perception of a phonetic variant in different prosodic contexts. *Language in Society*, 43, 1–31.
- Podesva, Robert J. 2008. Three sources of stylistic meaning. In Kate Shaw, Sarah Wagner, and Eiko Yasui (eds.) *Proceedings from SALSA IV: Texas Linguistic Forum*. 134–143.
- Schilling-Estes, Natalie 1998. Investigating ‘self-conscious’ speech: The performance register in Ocracoke English. *Language in Society*, 27, 53–83.
- Schleef, Erik 2017. Social meanings across listener groups. *Journal of English Linguistics*, 45, 28–59.
- Schleef, Erik, Nicholas Flynn, and Michael Ramsammy 2015. Production and perception of (ing) in Manchester English. In E. Torgersen, S. Hårstad, B. Mæhlum, and U. Røyneild (eds.) *Selected Papers from the Seventh International Conference on Language Variation in Europe (ICLaVE 7)*. Amsterdam: John Benjamins. 197–210.
- Silverstein, Michael 2003. Indexical order and the dialectics of sociolinguistic life. *Language and Communication*, 23, 193–229.
- Straw, Michelle and Peter L. Patrick. 2007. Dialect acquisition of glottal variation in /t/: Barbadians in Ipswich. *Language Sciences*, 29, 385–407.
- Tamminga, Meredith 2017. Matched guise effects can be robust to speech style. *The Journal of the Acoustical Society of America*, 142, 18–23.
- Thorne, Stephen. 2003. Birmingham English: A sociolinguistic study. Doctoral dissertation, University of Birmingham, U.K.
- Trudgill, Peter 1972. Sex, covert prestige and linguistic change in the urban British English of Norwich. *Language in Society*, 1, 179–195.
- Trudgill, Peter 1986. *Dialects in Contact*. Oxford, U.K.: Blackwell.

- Wakelin, Martyn 1984. Rural dialects in England. In Peter Trudgill (ed.) *Language in the British Isles*. Cambridge, U.K.: Cambridge University Press. 70–93.
- Watson, Kevin and Lynn Clark. 2013. How salient is the NURSE–SQUARE merger? *English Language and Linguistics*, 17, 297–323.
- Watts, Emma. 2005. Mobility-induced dialect contact: A sociolinguistic investigation of speech variation in Wilmslow, Cheshire. Doctoral dissertation, University of Essex, U.K.
- Wells, John C. 1982. *Accents of English. Vol. 2: The British Isles*. Cambridge, U.K.: Cambridge University Press.
- Wells, John C. 1997. Our changing pronunciation. *Transactions of the Yorkshire Dialect Society* XIX: 42–48.
- Yaeger-Dror, Malcah 1993. Linguistic analysis of dialect ‘correction’ and its interaction with cognitive salience. *Language Variation and Change*, 5, 189–224.