DRESS-raising in Connemara English: shedding light on the role of Irish

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Abstract

Pre-nasal DRESS-raising $(/\epsilon/$ to /I/) is a salient feature of western Irish English. However, its origins are little understood. Accounts differ on whether it is an Irish transfer feature or an Early Modern English retention. To investigate the possibility of this being a synchronic transfer feature from Irish 448 DRESS tokens recorded from bilingual L1 Irish speakers were acoustically analysed and compared with 450 DRESS tokens from monolingual English speakers from the same region. L1 Irish speakers of English showed a higher degree of pre-nasal raising than monolingual English speakers. However, an equivalent analysis of the bilingual speakers' Irish (113 tokens) shows no evidence of pre-nasal raising. These findings cast doubt on the possibility of an Irish origin for DRESS-raising in Irish English.

Keywords: Irish English, DRESS-raising, PEN-PIN merger, contact Irish English

Introduction

Phonological accounts of western Irish English describe raising of the vowel in the DRESS lexical set (Kallen 2012, Peters 2016). Historically occurring in a wide variety of phonological contexts, it is now largely a pre-nasal phenomenon, hence its being termed the PEN-PIN merger. Peters' 2016 study of Galway City English found this merger to be a recessive feature, occurring mainly in the speech of the older population.

The origins of DRESS-raising in Irish English are subject to speculation. Kallen (2012) and Henry (1957, p. 76) have drawn parallels with Early Modern English (brought to Ireland during the 17th century), which exhibited /e/-raising before /s/, /l/ or /n/ + consonant. Others (Ó Baoill 1997, O'Sullivan 1942 as cited in Peters 2016) have attributed DRESS-raising to phonological transfer from Irish, which is said to demonstrate raising of $/\epsilon$ / to /I/ in nasal environments in Connacht and Munster (Ó Siadhail 1989). Ó Baoill (1997) draws parallels with Irish mid-vowel raising in both Connacht and Munster.

Varieties of Irish English spoken by L1 Irish speakers provide a setting for investigating the extent of phonological transfer from Irish to English. Such varieties are reported to exhibit particularly extensive Irish influence (Ó hÚrdail 1997) and, as put by Harris, (1991, p. 45) are an "obvious research site for testing assumptions about the influence of Irish on the development of Irish English".

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To shed light on the plausibility of an Irish source for Irish English DRESSraising, this study addresses the following research question: Do L1 Irish speakers of English have a particularly extensive presence of dress-raising when compared to monolingual English speakers from the same region?

Methodology

Data collection

Two sets of participants from the Connemara Gaeltacht (Irish-speaking region) in the west of Ireland were recorded. Group 1 consisted of ten L1 Irish speakers (Irish-English bilinguals); Group 2 consisted of ten monolingual English speakers. Each group comprised five male and five female speakers, giving a total of twenty participants. Participants were recorded individually in their own homes. Two English datasets were recorded from each participant: a short interview and a series of sentences. This resulted in a total of 448 DRESS tokens for bilingual speakers (191 interview tokens, 257 sentence tokens) and 450 DRESS tokens for monolingual speakers (192 interview and sentences) was collected from the bilingual speakers, giving 113 / ϵ / tokens. Recordings were made using an AT2020 USB microphone and an Apple Macbook Pro.

Data analysis

F1 and F2 measurements were extracted for all vowel tokens via Praat. To facilitate investigation of a PEN-PIN merger 753 (total) KIT tokens and 144 tokens of /I/ in Irish were also measured. These measurements were Z-score normalised in R (R Core Team 2022) to facilitate interspeaker comparison.

The ggplot function in R was used to visualise the data. DRESS tokens were subdivided into pre-oral and pre-nasal (PEN) contexts to investigate pre-nasal raising. To quantify the degree of raising for each group of speakers, Pillai scores were calculated via MANOVA tests in R as a measure of overlap between vowel groups.

Results

Figure 1 demonstrates that L1 Irish speakers showed greater overlap of PEN and KIT vowels than monolingual speakers. The degree of vowel overlap for each speaker is represented by Pillai scores given in Table 1. These results confirm that bilingual speakers have a larger degree of overlap between PEN and KIT vowels than monolingual speakers. In addition, monolingual speakers DRESS and PEN vowels show little separation when compared to those of bilingual speakers.

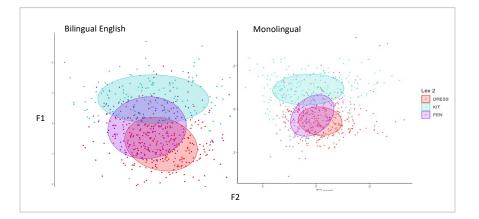


Figure 1. Scatterplot of DRESS, KIT AND PEN vowels for bilingual (L1 Irish) English and monolingual English.

Table 1. Summary of Pillai scores for vowel groups of each dataset.

	Monolingual		Bilingual		Irish	
	kit	pen	kit	pen	/1 /	/ε/
pen	0.32		0.16		0.24	
dress	0.5	0.06	0.4	0.15	0.48	0.04

Irish $/\epsilon$ / tokens were similarly divided into pre-nasal and pre-oral contexts and were plotted with Irish /I/ tokens for contextualisation. Figure 2 shows that the bilingual speakers' production of Irish $/\epsilon$ / vowels did not mirror that of their English, i.e. no evidence of expected $/\epsilon$ / raising was present in the Irish tokens. In addition, the Pillai scores for Irish were closer to those for monolingual English than for bilingual English.

Discussion and conclusion

L1 Irish speakers showed a greater degree of pre-nasal DRESS-raising than monolingual English speakers from the same region. The role of L1 Irish transfer in such a discrepancy is naturally considered. However, bilingual speakers did not show equivalent raising in their Irish (Figure 2). Thus, the PEN-PIN merger in the bilingual speakers' English does not appear to be a synchronic phonological transfer from Irish. This finding casts doubt on an Irish language source for Irish English DRESS-raising/PEN-PIN merger.

Although preliminary, these findings highlight that an analysis of Irish data alongside Irish English is necessary when investigating origins of particular phonological features of Irish English; anecdotal claims should be supported by quantitative analyses.

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