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The sociophonetically inscribed nonchalance of the non-standard 1SG and its mass media origins¹

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Abstract

The re-emergence of the non-standard 1SG in English (“i”, herein NS1sg) suggests that the inclusion of the novel form as an online variant is indeed encoding sociophonetic variation; that it is deployed for its attenuative effects in a language with only one 1SG and no speech levels. The attenuation afforded by the variant is displayed in both a graphemic and—as suggested here—an acoustic reduction; a strong graphemic “I” becomes a weak graphemic “i”, and a diphthong /aɪ/ shifts to a monophthong /ə/ or /ɑ:/. This pairing of phoneme-grapheme attenuation is socially useful. The very sound of /aɪ/ is salient and self-assertive, the sound of /ə/ is not. The perception of this phonetic variation relies on endophasia, but where do these vocal depictions come from, and are they faithful to the grapheme? This paper aims to demonstrate how vocal characterizations of nonchalant stance are being inscribed and enregistered in the NS1sg using personae, which are essentialized personifications of the imagined typical user. Enregisterment has been characterized as a social process whereby diverse behavioural signs (whether linguistic, non-linguistic, or both) are functionally re-analysed as cultural models of action, as behaviours capable of indexing stereotypic characteristics of incumbents of particular interactional roles, and of relations among them. Multiple tokens from 47 media sources, satisfy the prediction ($p\text{-value} \leq 0.05$) that the perceived NS1sg sits in the frequency area of high F2, and that as expected the 1SG personae reside in the low F2.

1 Introduction—Wielding tropes

This paper looks at the written discourse strategy named *Shielding*. Shielding is one of six usages of the nonstandard 1SG proposed in Burnett (2023c) imbued with social meaning. As its name suggests, Shielding is a protective implementation. It is an effective usage as it leans

¹ The results of this paper were first presented at HISPhonCog: Hanyang International Symposium on Phonetics & Cognitive Sciences of Language, May 26-27, 2023, Hanyang University, Seoul, Korea.

on the aural implicature re-created by the reader during the reading process. I suggest that the original aural implicature of this online variant was (as is often the case) youth driven, and as such would have a prosody constructed in opposition to formality, stagnation, rigidity, tradition; traits and ideologies which are interestingly encapsulated in the standard Received Pronunciation rendition of the diphthonic 1SG. The Oxford English Dictionary (online) defines the adjective “nonchalant²” as “Calm and casual; (deliberately) lacking in enthusiasm or interest; indifferent, unconcerned”. Sociophonetic enregisterments themselves rely on indexicality (pointing to a stance that did not originate in the reader’s mind). This non-conflictual voice is identified and re-purposed by individuals online finding themselves in the situation of, for example, wanting to share information or an opinion on a thorny topic without being ‘shot down’, as shown in Fig.1.

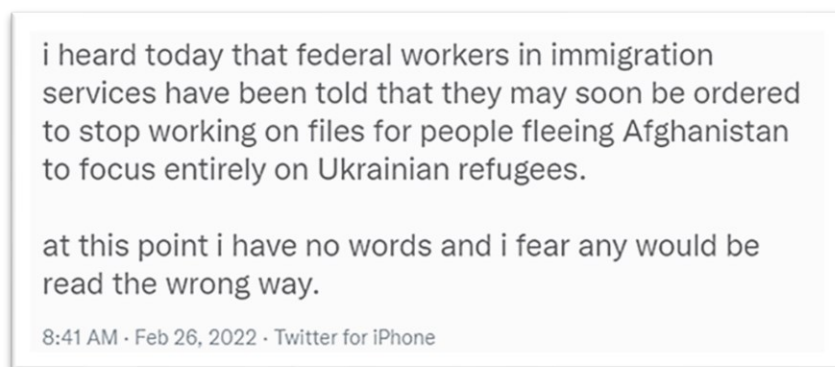


Figure 1 (Meta)pragmatic utterance, the author describing their stance using the Shielding form of the NS1sg.

In some contexts it could substitute the tone indicator IMHO³. I posit that CMC users have identified the prosodic effects of the variant 1SG, and are redeploying it as a shorthand for “don’t shoot me; let me say my piece, and don’t verbally abuse me in written form on a public website, especially since I am adopting this non-conflictual stance”. The online author is thus able to ‘import’ single or swathes of socially recognizable enactments, compressing them into the lexical layer of the non-standard 1SG allomorph. To quote Silverstein (2004, p.196) “people sometimes use explicit primary performative constructions to denote conventional “moves” constituted by language-in-use, that is, to parse language-in-use as chunks of interactional text; this constitutes a kind of full-tilt metapragmatic discourse.”

The beauty of enregisterments is their portability, because as a language function—contingent almost solely⁴ on the producer’s and receiver’s shared culture—they can be

² https://www.oed.com/dictionary/nonchalant_adj

³ In My Humble Opinion.

⁴ Save for individuals with conditions preventing them from ‘mind reading’.

extremely efficient in injecting a semantic load into a small place, allowing the author to render explicit their stance in the blink of a reader’s eye. This could be seen as a protective, or a strategic use of conversational politeness (see Leech, 2014) or diplomacy, in metapragmatic form. However one wishes to frame it, this is a democratic usage in the public forum of digitally mediated text, where Goffman’s principle of private and public selves comes to the fore. Elizabeth Bruenig, opinion writer for the New York Times and public figure, used the standard form of the 1SG in their publications on Twitter/X, before they received increasingly noxious communications particularly from users identifying as male, for political and misogynistic motives. This began sometime in 2020 and peaked in February 2021 after the journalist posted photos of themselves breastfeeding. 4chan⁵ members inundated the site with sexist memes and spiteful and sexualised comments. Following this event, Bruenig began to employ the lowercase <i>, culminating in it being the only 1SG form that they employed on Twitter/X. This observation may be a false correlation; their transition into the NS1sg could correspond to an aesthetic trend, for it is true we have seen usage of the form increase in frequency since 2009. However, having analyzed the variant and proposed a taxonomy of usages (Burnett, 2003c), I posit that this is not the case, and that the journalist’s use of the lowercase (see Fig.2) is an epitomic example of *Shielding*; borrowing the aural implicature of the enregistered prosody of younger language and implementing it to impress a non-conflictual tone upon the reader.



Figure 2 July 2020 tweet taken from PoliTweet.org

The usage of the NS1sg in Fig. 2 is tantamount to saying, “It is my job to publish on social media, and I have to publish my opinion, so since that is the case I will use this

⁵ 4chan is an English-language image-based user anonymous website, known for its controversial content and poor moderation. See Wendling (2018) Alt-right: From 4chan to the White House.

minuscule to let you know that a) there is a feeling human behind these typed words, and b) “this human doesn’t want to be attacked.” Note that after a hiatus and accepting only approved followers, Bruenig renewed with the standard form⁶, although this could be an indication of renewed strength in the journalist, and the standard 1SG could be an iconic embodiment of that renewal (see Burnett, 2023c, p.205).



Figure 3 March 2023 tweet taken from PoliTweet.org

In order for this stance to function, it needs to ‘borrow’ the aural implicature from the common stock; but how do CMC users know what sound that is? I posit that they are able to identify the sound because vocal characterizations are being inscribed and sociophonetically enregistered in the NS1sg using personae, which are essentialized personifications of the imagined typical user (Ilbury, 2020, p.249). Enregisterment has been characterized (Agha, 2015, p.27) as a social process whereby diverse behavioural signs (whether linguistic, non-linguistic, or both) are functionally re-analysed as cultural models of action, as behaviours capable of indexing stereotypic characteristics of incumbents of certain interactional roles, and of relations among them. Levels of indexicality progress in a hierarchical manner: any n th + 1-order index relies on an n th-order index, indicating that indices emerge through a dialectical relationship with other indices. (Squires, 2006, p.459).

A useful description of the path from indexicality (Silverstein, 2003) to enregisterment is recalled by Squires (*ibid*, p.459-60):

In examining “Pittsburghese”, Johnstone and colleagues (2006) show that certain features, such as /aw/ monophthongization, are sociodemographically correlated with speakers in Southwestern Pennsylvania, which establishes a first-order (n th-order) index of linguistic form to social property. When those regionally distributed features

⁶ <https://tinyurl.com/2pccvz7v>

become noticed and metapragmatically linked to regional speech, a second-order (nth + 1-order) index is established. When they are objectified and metadiscursively linked to stereotypic personae, a third-order (nth + 1 + 1-order) index is established, and the features are enregistered as belonging to a variety folk-named “Pittsburghese”.

It could be that non-standard minuscules—particularly in the case of the pronominally-impacting NS1sg, the grapheme being an allomorph, carries both nth-1st order (<I>) and 3rd order (<i>) indexicalities, which may seem to be a violation of indexical function; however, this could work if the different indices are distributed simultaneously in the functional (I=nth) and the lexical (nth+1+1) layers of the allomorph.

I suggest some implementations of the NS1sg operate on a solely visually iconic level, others on an indexical level, and I posit that the instant recognition of the NS1sg amongst younger social actors can certainly engage the reader’s subvocalization⁷, but that logic would have it bypass the slower cognition that mobilizes reading on a *multimodal* prosodic level, engaging rather on a more abstract, *amodal* level of inner language. Some usages of the novel form—those deploying aural implicature and/or a sociophonetically enregistered form—do however rely on reader access to multimodal endophasia, and that the decision to be informed by a particular external voice relies heavily on the characterisation afforded by its tone and intonation over all other idiosyncrasies. So, I do not oppose abstract and concrete in the sense that only one is a true understanding of inner-speech representations. Rather I account, once again, for usage being bound to the context; the “wilful, volitional” use of the cognitive tool of concrete⁸ multimodality over abstract, amodal inner language. “The seemingly opposite views of Abstraction and Motor Simulation are not mutually exclusive”. (Løevenbruck, Grandchamp, Rapin, Nalborczyk, & Dohen, 2018, p.9)

This phenomenon is an aural borrowing, and the target inner voice will have been chosen as appropriate to the NS1sg grapheme from an ‘archive’ of aural representations, either of the reader’s own voice, of a voice encountered during social interaction, or a voice heard via various forms of media—in any case having originated elsewhere than in the reader’s mind. These aural depictions of the standard and non-standard 1SG personae may come to us via television or online platforms, news and information, fiction series, movies, video games, YouTube, Instagram, and advertising, etc. “(...)the metapragmatic typification of

⁷ Also referred to as ‘endophasia’, ‘inner-speech’, or ‘inner-language’, I consider them all as descriptions of the same phenomenon.

⁸ *Nota Bene*: ‘Concrete’ should not be confused with ‘concretism’.

a register can be found in “everyday reflexive behaviours” and “metadiscursive genres”, including journalistic, literary and pedagogic representations of language use” (Androutsopoulos, 2014, p.32). A word might otherwise be said on cultural subjectivity, but herein we’ll take the position of Anglo-Saxon utterances by and for English L1 or fluent speakers.

2 Corpus—Actor personae

The corpus construction rationale is that interlocutors found (base) their reception of tropic reenactment on only a few models of verbal art (Agha, 2015) and that mass-mediatised artefacts are thus disseminated internationally, expanding the social domain of those able to recognize the contrast in register. In the Anglo-Saxon culture, being now predominantly North American in regard to mass media and entertainment, it was important to find actor personae containing 1SG and NS1sg from most-viewed media. The corpus was created from 6 categories and 47 main primary sources (Appendix A) further divided into multiple tokens; all highly viewed English language material. 131 audio file segments⁹ containing expressions of the 1SG were isolated, and the tokens annotated as ‘perceived as’ 1SG or NS1sg. The high exposure is important for their memetic potential, but also for their impact potential, since the authority of the personae is enhanced by the implication of high numbers of views if not significant material resources (Foucault, 1981, *ibid*).

Netflix: Per Netflix’s¹⁰ Top 10 site, this is how their ‘all-time list’ works¹¹: “... we provide a list of the Top 10 most popular Netflix films and TV overall (...) in each of the four categories based on the hours that each title was viewed during its first 28 days. Since some titles have multiple premiere dates, whether weekly or in parts, we count the 28 days from each episode premiere date in each country.”

Presidential and prime ministerial speeches: In 2022, NBC topped ad-supported TV networks in the U.S. with 1.2 million average viewers aged 18-49, as per Statista. Fox followed with 902 thousand viewers, and ABC with 864 thousand. These figures exclude extensive social media views, where BBC News boasts 14 million YouTube subscribers alone.

⁹ All audio used here are made available in Burnett, S. (2024) Replication Data for: “The sociophonetically inscribed nonchalance of the non-standard 1SG and its mass media origins”, and “White Flag Typography”, Chapter 3.1., Harvard Dataverse, V1. <https://doi.org/10.7910/DVN/ODOXOZ>

¹⁰ <https://tinyurl.com/4t7vjfy9>

¹¹ Moore, K. *Most Watched Series & Movies on Netflix of all Time*. <https://tinyurl.com/ycknek79>

Commercials: Since Netflix started gaining popularity between 2007-2012, commercials were chosen from 2011 onwards. This date coincides with when Facebook began gaining traction, and the year Instagram was launched. In Appendix A, these are ranked by most-views.

Instagram: A heavily publicity-focused social media platform, Instagram blends user-generated content with promotional videos from celebrities compensated by brands. These videos, meticulously crafted to seem spontaneous, wield significant influence, reaching millions of users through the Instagram mobile application. In Appendix A, these are ranked by most-views.

Theatrical movies: The films appear as top-ranked by theatrical exhibition revenues. Note that the data doesn't include views of trailers on platforms like YouTube, potentially indicating a much larger audience for these auditory depictions.

Video games: Also ranked by most-sold units. I dismissed non-speaking games such as *Minecraft* (though it ranks first), which contains dialogs but that are based on superimposed texts; for the same reason I dismissed *Tetris*, *Wii Sports*, *Pokémon RGB*, *Animal Crossing*, or *Human: fall flat V*, all high ranking but lacking natural voice representations. Games are useful because they are 'heavily' weighted since they are typically played several times, and as they are participatory, the multimodal engagement is greater, which in cognitive terms such as recall has a deep footprint (see Nelson, 2002). The games retained either had Non Player Characters (NPC) with spoken dialog, and/or cinematic scenes. Games such as *Skyrim* (MMORPG¹²) are particularly interesting because they have character interactions with NPC that have spoken dialog and often represent story characters with defined (archetypal, stereotypical) personalities and/or perlocutionary goals.

¹² Massively Multiplayer Online Role Playing Game



Figure 4 Joe Biden's ISG enregisterment is accompanied by the Capitol.

The audio examples in the corpus were in the original form accompanied with multimodal information (corporal stance) and semantically rich discursive environment (fictional scene, political discourse). For example, President Biden's standard ISG is enhanced by the rigidity and authority of the discursive environment (situation) that the enregisterment is founded in (see Fig.4). *The* discursive environment, or situation, that the enregisterment of say, the protagonist in *Avatar* brings to their ISG is an experimental military environment, and a young veteran, who despite paralysis explores a new world (Fig.5).



Figure 5 Still from the trailer of the movie 'Avatar' released in 2009.

The media herein are created for an international market, with broad tropic brush strokes, meant to be understood by the masses; a modern-day *commedia dell'Arte*. The use of

a socially-laden variant form only has sense if there is an informed audience to acknowledge its meaning and attribute its sociophonetic properties to its author. The usage of a monophthong for the 1SG acts as a metonymic signifier. This signifier must unfold in what Foley (2004) calls a “performance arena”, which pertains to the ability of the people present—speech participants—to understand the semantic properties of the enregisterment.

If we accept nonchalance as residing in the same semantic plot as the more commonly used word ‘cool’, for which the Oxford English Dictionary’s definition is “not affected by passion or emotion, dispassionate”, then we may apply such values to prosodic attributes. In line with Crystal (1969), Cruttenden (1997) and Jun (2005), we will assume that intonation is an amalgam of prosodic variables. Table 1 proposes a prosodic blueprint of a ‘cool’ voice.

Table 1 Components of ‘cool’ voices.

PROSODIC ELEMENT	ATTRIBUTE	ICONIC EXAMPLE
FUNDAMENTAL FREQUENCY	Lower pitch is often associated with cis male gender (vocal tract size).	Alan Rickman
DURATION	Slower speech can evoke nonchalance. When paired with no tonic accents in French, even more so.	Serge Gainsbourg
INTENSITY	Reduced amplitudes of pitch with an even, smooth delivery.	Meryl Streep
MINIMAL ARTICULATION	Reduced enunciation and reduced amplitudes assist segmentation at speed.	Kendrick Lamar
SPECTRAL CHARACTERISTICS	Breathiness or ‘vocal fry’.	Scarlett Johansson

Regional accents also play a role in the perception of cool—actor Mathew McConnaughey’s Southern drawl likely sounds far more casual to most ears than the clipped voiced consonants of Mark Gatiss’s *Mycroft Holmes* (public schoolboy RP) which is why the corpus was not filtered for accented vocal depictions, as they are part and parcel of the personae.

3.1 Background—The phonetic analysis of aural stances

The vocal tract's first four lowest resonant frequencies are formants F1-F4, (Carlson, Granström, & Fant, 1970), Stevens (2000). Most vowels have at least four formants, and often five or even six, however it is the F1 and F2 formants that play an important role in vowel measurement. It is a well-documented (*ibid*) fact that the first formant F1 has a higher frequency for an open or low vowel such as [a] and a lower frequency for a closed or high vowel such as [i] or [u]; and the second formant F2 has a higher frequency for a front vowel such as [i] and a lower frequency for a back vowel such as [u]. This paper focuses on the F2 to identify standard and non-standard forms of the 1SG, positing that the actor personae frequencies will be faithful to the corresponding IPA cardinals.

Acoustic studies of several languages indicate that second formant (F2) slopes in high vowels have opposing directions (independent of consonantal context): front [i:] -like vowels are produced with a rising F2 slope while back [u:] -like vowels are produced with a falling F2 slope (Chládková, Hamann, Williams, & Hellmuth, 2017). Their paper suggests that in Standard Southern British English at least, a rising F2 seems to be perceptually associated with an abstract feature such as [+front] while a falling F2 with an abstract feature such as [-front]. So, apart from the stable formant values measured during the pronunciation of a vowel, the direction in which the formant trajectory moves also helps to identify diphthongs. For example, the diphthong [ɛi] is characterized by a falling F1 slope and a rising F2 slope, whereas [ɔu] has a falling F1 slope and a falling F2 slope. Thus, an NS1sg monophthong may have a perceptual edge of the standard form based on its F2 slope alone.

The hypothesised vowel sounds of the NS1sg are adjacent to that of a schwa as an end vowel (Flemming 2009), which the monophthong essentially is, the mean F1 of schwa vowels is 665 Hz, while mean F2 is 1772 Hz, which corresponds to a mid-central vowel, i.e., in IPA [ə]. The exact frequencies of course vary depending on the individual speaker and the specific pronunciation of the vowel.

3.2 Hypothesis and predictions

The hypothesis is that the encoding and decoding of social meaning in the aurally implied implementations of NS1sg and 1SG rely on hyperbolic tropes that are inscribed in cultural enregisterments. These aural and multimodal indexicals come to interlocutors via mass media (state and commodity) and so by questioning corpora from these sources, one can measure the

acoustics of the NS1sg and 1SG vowel sounds. The prediction is that these formants will correlate with the locations on the IPA chart of higher-front tongue final position for the offglide of the standard diphthong /ai/ enactments, or a lower-mid/back tongue final position for the NS1sg monophthong /ə/ , /ɒ/ , or, at a push/ʌ/¹³.

4 Method

Audio segments were isolated first by lexical and auditory analysis. The desired segments were identified using Closed Caption, then extracted and filed. Lexemes perceived as standard 1SG were labelled 1SG, and those perceived as non-standard 1SG were labelled as NS1sg. This was done with audio only to avoid a McGurk type effect (MacDonald & McGurk, 1978) of being influenced by the visual environment. At this point in the process the lexemes were studied in context because as Jun (2005, p.431) points out, we cannot predict the post lexical prosody of a pitch (e.g., intonational pitch accent, phrase accent) based on the lexical prosody; and it is interesting to look at the utterances surrounding the target lexeme “I” to observe the articulatory effects and possible liaison constraints. The spectrogram was analysed in Praat¹⁴, then the lexeme separation fine-tuned using formant analysis. Formants are resonant frequencies in the vocal tract that shape the distinctive sound quality of speech vowels. The ‘shape’ of a vowel can be seen in a spectrogram, allowing for precision isolation.

Some of the media extracts were too “noisy” with music or other background tracks. These were removed from the file using a tool made by Dmitry Melnik¹⁵. Following the isolation of the lexeme/phoneme <I> in the spectrogram (see fig. 6), the F1 and F2 formants of the perceived standard and non-standard forms were measured at their optimal length, at around 80% of the sound.

¹³ The mid-central vowel sound would be less common and more problematic, relying on a 1SG + auxiliary *be* construction or similar, which may afford it more incertitude than protection. A 1SG + auxiliary modal *would*, would be phonologically unlawful.

¹⁴ a software tool created in 1992 by Paul Boersma and David Weenink.

¹⁵ Vocalremover.org

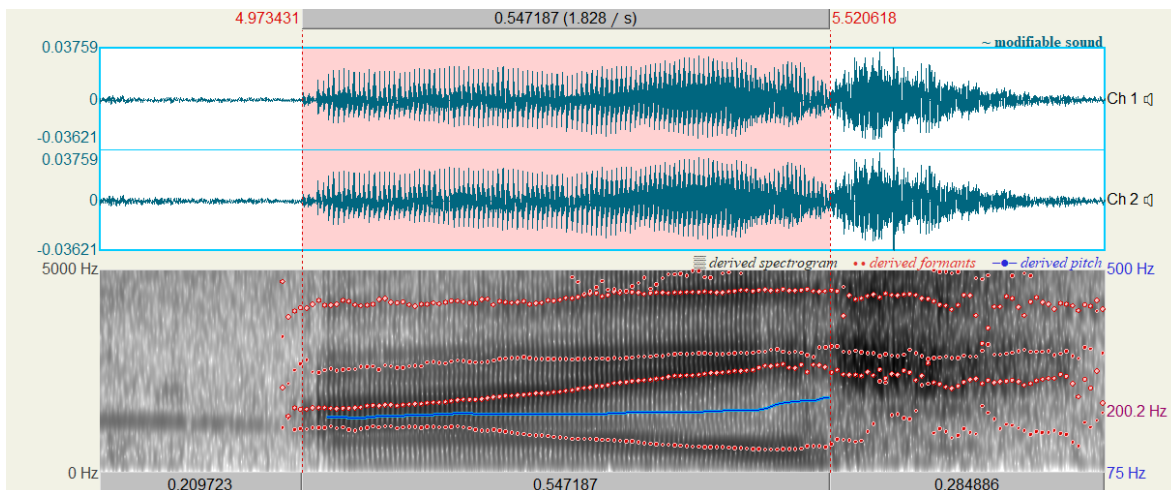


Figure 6 Jurassic World Token 3: Long epitomic ISG "I guess...", spectrogram of isolated "I" highlighted in pink. Blue line is pitch. Note the squid-like shape of the standard form.

(Jacewicz, Fujimura, & Fox, 2003). ISG nuclei and offglides were measured. These data were collected in the csv file¹⁶ then plotted in a scatter chart with flipped x (f2) and y (f1) axes to approach a replication of IPA plotting (fig. 7).

After confirming that the chosen formants contained accurate phonemic information, ensuring no clipping or inclusion of F0 data from adjacent phonemes, F2 formants were isolated, and F1 mostly disregarded. The ultimate data relied solely on F2 since the offglide position inherently indicates tongue position for both vowels.

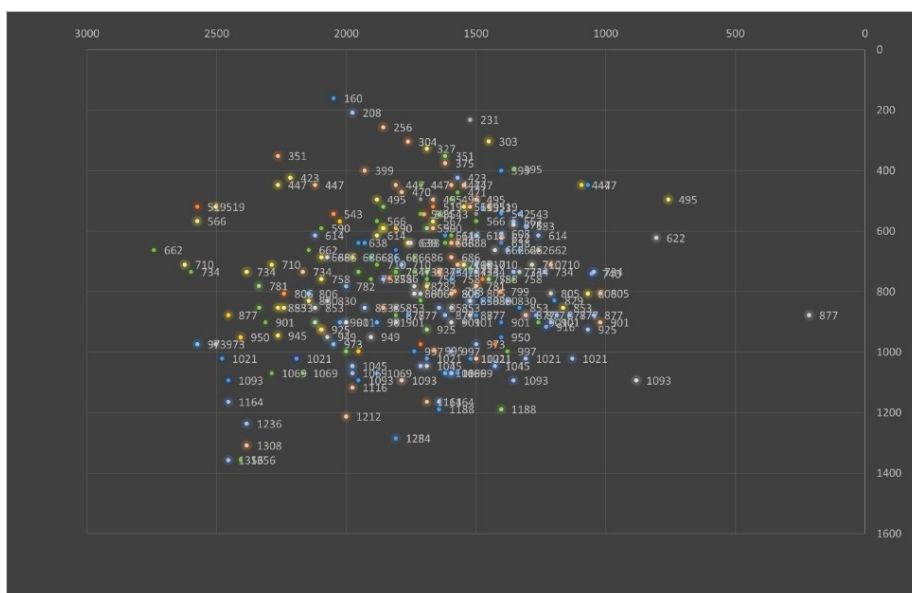


Figure 7 Handmade corpus of perceived ISGs & NSIs F1 & F2 formants plotted as Hz (inversed x and y axis).

¹⁶<https://tinyurl.com/mrydcyh7>

This approach remains representative of the intended utterance, even in voiceless versions of diphthong offglides (Chládková, Hamann, Williams, Hellmuth, 2017). Finally, the actor personae representation formants (F2s) were plotted to test the hypothesis and confirm whether Anglo-Saxon mass media sociophonetically inscribes coolness into the non-standard 1SG via enregisterment¹⁷.

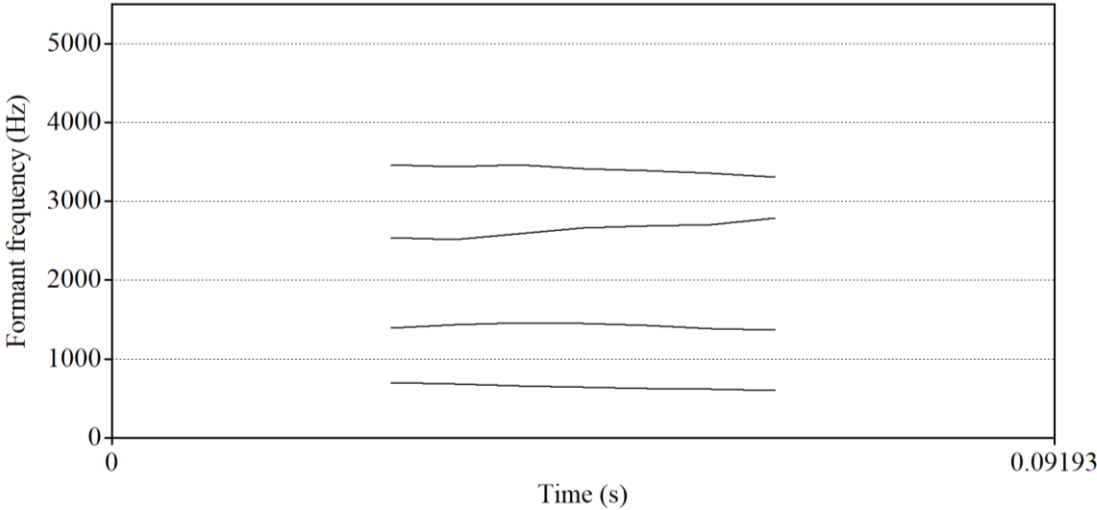


Figure 8 Perceived-as-cool isolated ISG + Modal Auxilliary. Token 4 from Lucifer Season 5. "I thought i'd pop back up". F1-F4 Formant track.

Note the levelness in Fig.8 of the F2 from onset to offglide, entailing smoothly with an under-accented voiced consonant <d>.

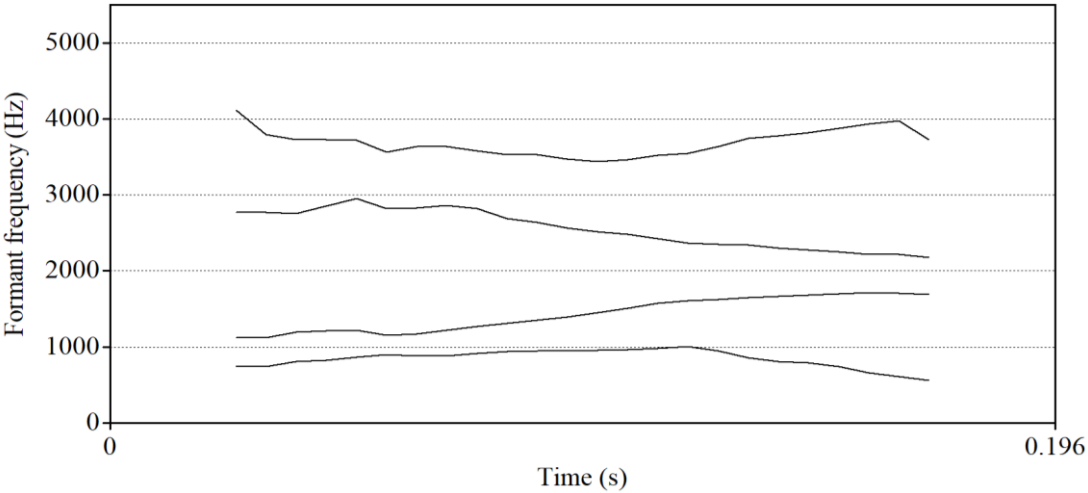


Figure 9 COD: Modern Warfare token of isolated perceived-as-non-standard ISG.

¹⁷ This hypothesis presumes a majority population ability of hearing, an intact Brodman Area 22, and absence of conditions linked to Aprosodia, which is the difficulty in grasping or producing intonational cues (Aspergers, for example).

Note how in figures 9 and 10 the actor, with a role and personae established by the game’s producers as ‘cool’, manages somehow to articulate the words and also compress the offglide of the F2 formant, spreading its nonchalant prosody to the entailment, providing the utterance with a general sense of coolness that perhaps wouldn't exist had the phrase been uttered by a non-actor.

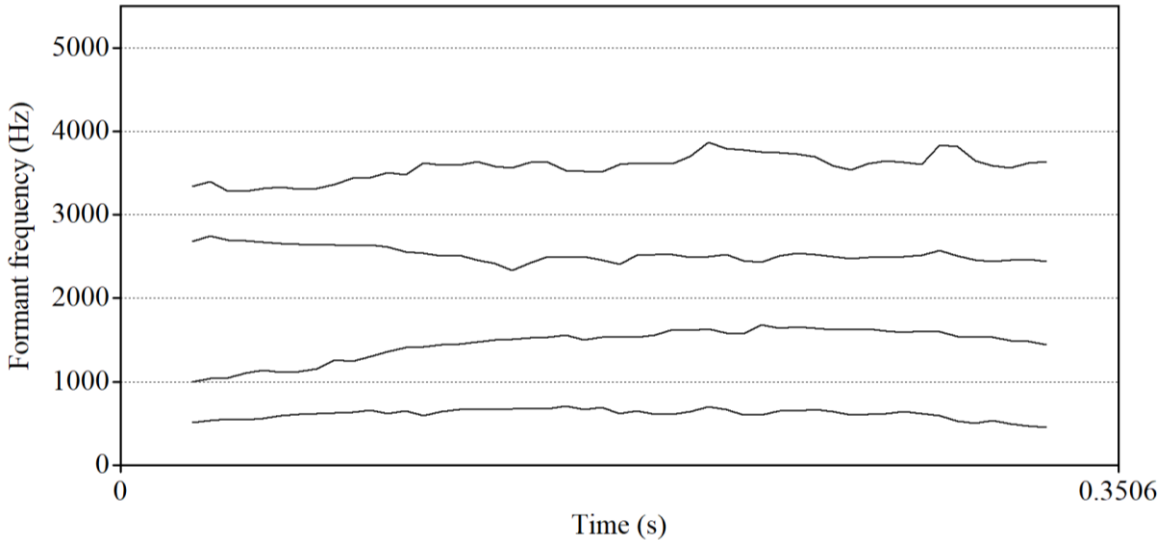


Figure 10 Video game COD Modern Warfare Token 1 Isolated perceived-as non-standard 1SG.

It’s an interesting entailment from closed-labial vowel sound, to attenuated 1SG, to ensuing phone <have> the chunking effect affords a non-standard feel to the utterance. Figure 11 demonstrates how actors can modulate their voices to utter the 1SG clearly yet still have its intonation transpire as ‘cool’.

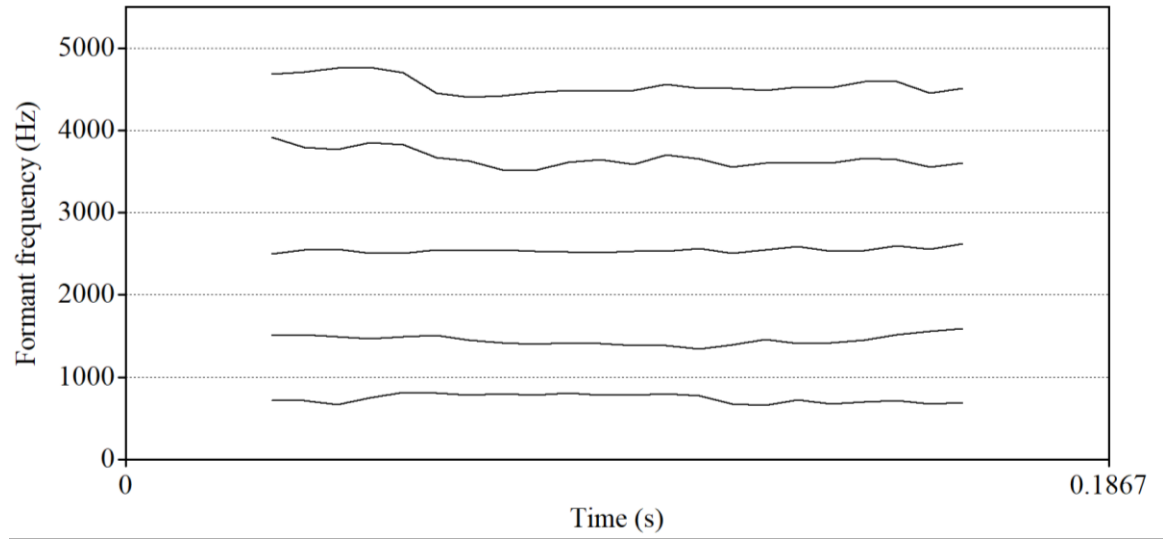


Figure 11 COD Modern Warfare (token 4) Isolated perceived-as-cool 1SG. ”then give me what i need”, between a mid back and a schwa.

The formant tracks show the token from the end of the utterance “then give me/ what i need”. It is spoken by the same actor as token 1, who displays therein an English (perhaps Northern) accent with American overtones.

In Fig.11, the accent slides notably—during the utterance—into a fully American, even Southern drawl to perform the NS1sg; creating a first part “then give me” = UK, and a second part “what i need” = US.

5 Results

The initial results (Fig.12), based on auditory acoustics showed that of the 131 tokens (F1 & F2 of both nucleus and offglides), 92 were perceived as 1SG, and 37 as NS1sg. The full corpus had a frequency range of 1984Hz from min. 758Hz to 2742Hz max, with a mean 1827.04Hz and median of 1810Hz and SD of 1431Hz. The perceived NS1sg sits in the frequency area of high F2, and that as expected the 1SG personae reside lower in the F2. The frequency of the ‘less self-asserting’ voice correlates with the same personae from highly viewed mass media.

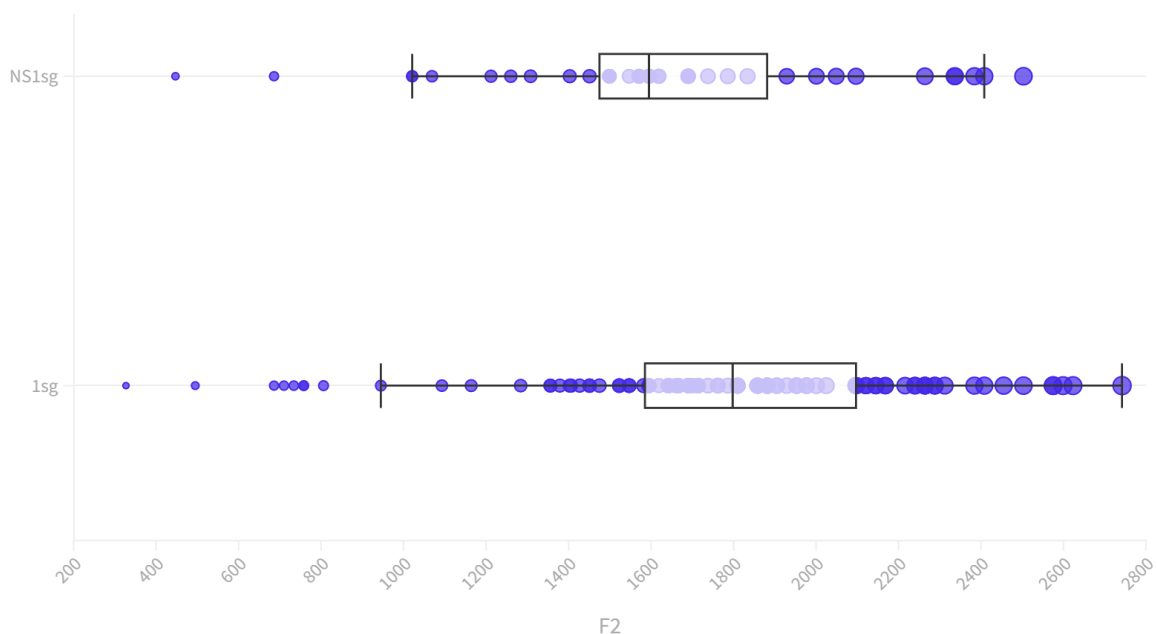


Figure 12 Distribution of the F2 formants showing the shifted locus of the proposed NS1sg.

In a more acoustically fine-grained representation of the data, the end points mapped over IPA norms (Fig.13) showed that actor personae in mass media displaying coolness is weighted away from the 1SG diphthong offglide (/I/). I expected clustering of schwa and lower mid back unrounded vowels, however I discover that the monophthongal expression of the non-standard form is indeed (also) performed using the nuclear vowel of the standard diphthong and discarding the high front of the offglide.

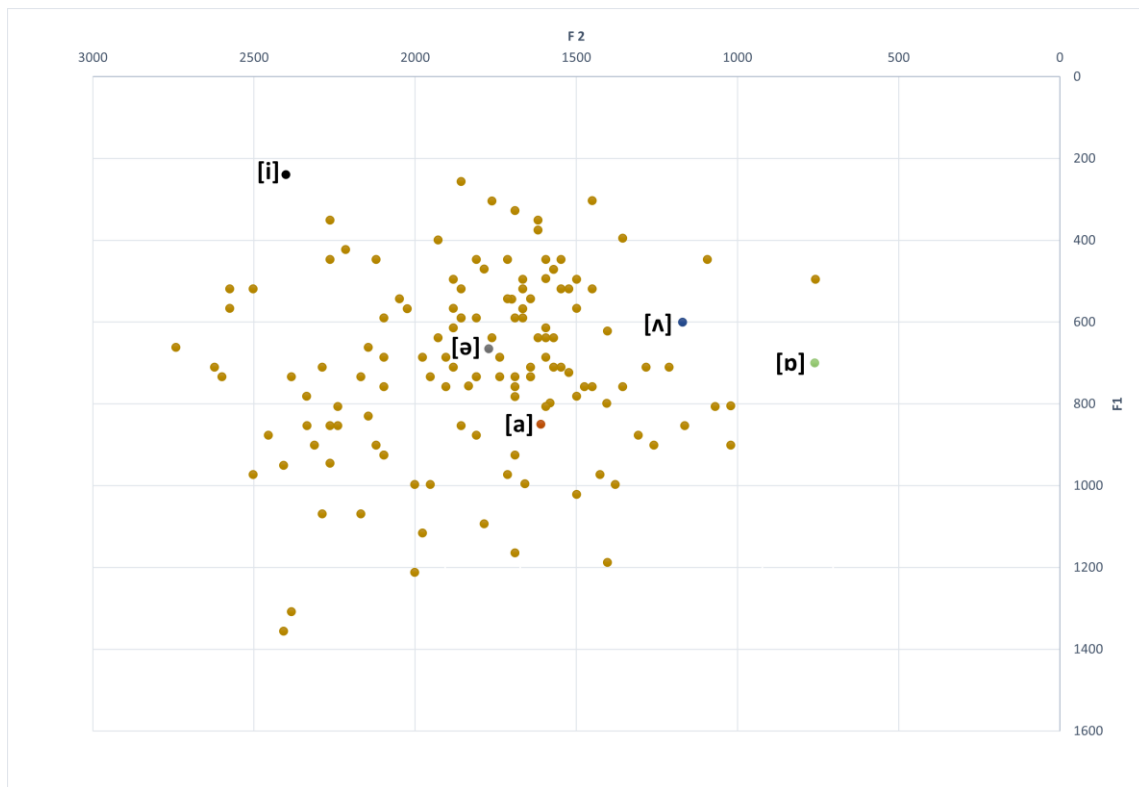


Figure 13 F2 measurements with typical IPA values.

6 Conclusion

In conclusion, this study has provided some evidence that the NS1sg and 1SG rely on hyperbolic tropes deeply rooted in cultural enregisterments. Through the examination of aural and multimodal indexicals disseminated by mass media, including state and commodity sources, the acoustics of the corresponding NS1sg and 1SG vowel sounds have been measured. As anticipated, the findings demonstrate a correlation between these formants and their general locations on the IPA chart, confirming the presence of a higher-front tongue final position for the offglide of the standard diphthong /ai/ enactments, as well as a lower-

mid/back tongue final position for the NS1sg monophthong. This empirical evidence strengthens our understanding of the linguistic dynamics within these cultural contexts and highlights the significance of mass media in shaping phonetic features in production.

7 Discussion

Noteworthy: some monophthongs with a higher F2 were perceived as standard. During the analysis it was interesting to note that several speakers managed to produce, despite constraints of speed and accent, liaison monophthongs of the 1SG with the nuclear pitch closer to the fundamental frequency of a standard diphthong offglide—thus retaining the *implication* of standard (RP) English, but with a cooler register. A standard /aɪ/ diphthong may be perceived as a NS1sg due to chunking and to the prosodic effects of homogeneous intensity, reduced articulation, and spectral characteristics in particular creakiness or breathiness. The maintaining of even and lower pitch is crucial to an utterance sounding cool, so it makes sense to omit the diphthong offglide to do so. Which leads us to suggest that the NS1sg, when in the lexical string, because it is subject to ‘loss of space and ensuing speeding up’ (Burnett, 2023c, pp.113-118) performs not as word-final schwa but as a word-medial schwa:

We have seen that English non-final schwa vowels are very variable in quality, particularly F2, and that most of this variation can be explained in terms of assimilation to context. But we still need to understand why this kind of schwa is more variable than a full vowel. Flemming (2004) argues that two related factors are involved: word-medial schwa is (i) very short, and (ii) it does not minimally contrast with other vowel qualities. These two factors are related because the short duration of non-final unstressed syllables motivates the neutralization of vowel quality contrasts in these contexts. Flemming (2009, p.12).

A full performance of the standard form offglide is a culturally and socially charged phone. Flattening the diphthong helps actors imbue their phrases with a mix of nonchalance and assertiveness by preventing too much of an intonational rise as in a declarative phrase. When paired with the 1SG, this makes for a strong intonational message: “I *am*, no need to overstate”. There are degrees of non-standardness however, and not all when listened to conveyed coolness. A few of them conveyed that their speakers were sad or ashamed. They remain in this corpus however a minority. The findings support the hypothesis that the NS1sg is

frequently enregistered, and these aural depictions correspond to the frequencies found in mass media, in turn bestowing upon the social actor a 'recombinant self' (Agha 2007, p. 334) within our “contemporarily dominant chronotope¹⁸ of mass mediated spacetime”—The interconnectedness of temporal and spatial elements in shaping the portrayal of the self within the context of linguistic enregisterment. This does suggest that in the usage of Shielding, the grapheme < i > is sociophonetically inscribed and maintained via actor personae enregisterment, allowing users to state their opinion more safely with an attenuated, modest ‘voice’.

The results of this paper’s analyses—however satisfying—are based on preliminary acoustic categorization by one person; hence in a sister paper¹⁹, I will share the results of an experiment conducted with n=84 participants to hopefully glean more evidence for shared perception of personae enregisterment and grapheme-phone pairing. The corpus of audio segments used for this paper is available [here](#).

¹⁸ Bakhtin's concept of chronotope which analyzes how spatiotemporal dimensions influence the thematic and narrative aspects of a story.

¹⁹ Also in §3.2.1 of my doctoral thesis “White Flag Typography”. (Burnett, 2023c)

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Appendix A: Actor personae formants

	NUCLEUS			OFFGLIDE		PERCEPTION
	F1	F2		F1	F2	
Politicians						
Biden 1	740	1053		544	1700	1SG
Biden 2	877	1269		799	1406	1SG
Biden 3	583	1308		798	1582	1SG
Biden 4	916	1230		995	1660	1SG
Trump 1	973	2503		NA	NA	NS1sg
Trump 2	734	1332		447	1093	1SG
Trump 3	781	1499		590	1858	1SG
Johnson 1 1SG	973	2575		1188	1403	1SG
Johnson 2	973	2049		351	1619	1SG
Netflix series						
Bridgerton S1_1	830	1475		519	1666	1SG
Bridgerton S1_2	950	1403		1093	1786	1SG
Bridgerton S1_3	638	1403		758	1475	1SG
Bridgerton S1_4	901	1403		519	2575	1SG
Bridgerton S2	901	1547		997	1953	1SG
Stranger Things_S3	638	1929		NA	NA	NS1sg
Stranger Things_S4	829	1714		710	1642	1SG
Wednesday_S1	782	2001		351	2264	1SG
Dahmer	830	2073		710	2288	1SG
Lucifer_S5_1	1045	1977		925	1690	NS1sg
Lucifer_S5_2	1164	1642		781	2337	NS1sg
Lucifer_S5_3	710	1499		734	1690	1SG
Lucifer_S5_2	830	1380		758	1451	NS1sg
Lucifer_S5_2	806	2145		734	1810	1SG
Lucifer_S5_2	614	1500		590	1690	NS1sg
Witcher_S1_1	1021	1690		806	2240	1SG
Witcher_S1_2	1021	2192		543	2049	NS1sg
Witcher_S1_3	734	1571		756	1834	NS1sg
Inventing Anna_1	1284	1810		877	2455	1SG
Inventing Anna_2	231	1523		950	2408	1SG
Ginny & Georgia S2_1	686	1905		853	2336	NS1sg
Ginny & Georgia S2_2	1069	1619		734	1953	1SG
Ginny & Georgia S2_3	901	2025		519	1858	1SG
Ginny & Georgia S2_4	901	1882		997	2001	1SG
Commercials						
Samsung (South Korea)						No 1SG
MySwitzerland (Switzerland) 1	543	1499		567	2025	1SG
MySwitzerland (Switzerland)2	494	1714		590	1810	1SG
Omega (Switzerland)(Music) 1	758	1690		973	1714	1SG
Omega (Switzerland)(Music) 2	662	1810		973	1427	1SG

Amazon (USA)	853	1929		901	2121	1SG
Netflix (USA)						No 1SG
Turkish Airlines (Turkey)						No 1SG
Nissan USA (USA)	1045	1714		1021	1499	NS1sg
Apple (USA) 1	1093	882		566	2575	1SG
Apple (USA) 2	901	1595		830	2145	1SG
Apple (USA) 3	806	1738		638	1762	1SG
Apple (USA) 4	853	1810		519	2503	1SG
Apple (USA) 5	949	1905		590	1858	1SG
Apple (USA) 6	853	2121		614	1882	1SG
Apple (USA) 7	662	1427		710	2623	1SG
Apple (USA) 8	901	2001		853	2240	1SG
Imagine your Korea						No 1SG
Chevrolet (USA)						No 1SG
Movies						
Avatar (1) 1	542	1403		1356	2408	NS1sg
Avatar (1) 2	399	1403		471	1571	NS1sg
Avatar (1) 3	495	1666		395	1356	1SG
Avatar (1) 4	734	1523		566	1499	NS1sg
Avengers 2012 1	1021	2479		758	1356	1SG
Avengers 2012 2	160	2049		734	1738	1SG
Avengers Endgame	614	1619		566	1882	1SG
Avengers Infinity War 1	447	1069		494	1595	1SG
Avengers Infinity War 2	543	1332		710	1284	1SG
Avengers Infinity War 3	829	1198		590	2097	1SG
Jurassic World (2015) 1	686	1810		901	1260	NS1sg
Jurassic World (2015) 2	1021	1521		638	1619	NS1sg
Jurassic World (2015) 3	1188	1642		662	2742	1SG
Jurassic World (2015) 4	1284	1810		734	2599	1SG
Jurassic World (2015) 5	805	1595		662	2145	1SG
Lion King (2019) 1	638	1953		723	1523	1SG
Lion King (2019) 2	877	1499		710	1882	1SG
Lion King (2019) 3	805	1499		686	1905	1SG
Lion King (2019) 4	1069	1882		1069	2168	1SG
Lion King (2019) 5	1093	2455		614	1595	1SG
Spiderman No Way Home 1	523	1475		543	1714	1SG
Spiderman No Way Home 2	662	1332		447	1714	1SG
Spiderman No Way Home 3	1069	1571		997	1379	1SG
Spiderman No Way Home 4	997	1738		901	2312	1SG
Spiderman No Way Home 5	877	1762		758	1905	1SG
Titanic (1997) 1	1045	1427		877	1810	1SG
Titanic (1997) 2	830	1523		758	1690	1SG
Titanic (1997) 3	853	1332		543	1642	1SG
Titanic (1997) 4	758	1595		686	1738	NS1sg

Titanic (1997) 5	830	1451		734	1810	1SG
Titanic (1997) 6	1093	1953		1069	2288	1SG
Video Games						
Diablo III 1	614	2121		447	1810	1SG
Diablo III 2	1356	2455		519	1451	1SG
Diablo III 3	423	1571		495	1666	1SG
Diablo III 4	877	1188		447	1595	1SG
GTA San Andreas 1	208	1977		256	1858	1SG
GTA San Andreas 2	973	1499		781	1499	NS1sg
GTA San Andreas	997	1595		853	1858	1SG
GTA San Andreas	1069	1595		1164	1690	1SG
GTA V 1	1021	1128		686	1595	NS1sg
GTA V 2	1093	1356		1116	1977	1SG
GTA V 3	758	1858		447	2121	1SG
GTA V 4	734	1236		638	1595	1SG
COD: Modern Warfare 1	734	1356		734	1642	1SG
COD: Modern Warfare 2	877	1045		734	1642	1SG
Red Dead Redemption 1	877	1308		622	1403	NS1sg
Red Dead Redemption 2	1236	2384		1212	2001	NS1sg
Red Dead Redemption 3	1069	1977		734	2168	1SG
Red Dead Redemption 4	662	1379		519	1523	1SG
Zelda: Breath of the Wild 1	734	1045		399	1929	1SG
Zelda: Breath of the Wild 2	1021	1308		304	1762	1SG
Zelda: Breath of the Wild 3	901	1212		447	1547	1SG
Walking Dead 1	830	1523		638	1571	NS1sg
Walking Dead 2	1045	1427		877	1308	NS1sg
Walking Dead 3	1164	2455		901	1021	NS1sg
Walking Dead 4	925	1069		710	1212	NS1sg
Witcher III 1	710	1786		590	1666	1SG
Witcher III 2	853	1642		805	1021	NS1sg
Witcher III 3	608	1403		470	1786	NS1sg
Skyrim: Elder Scrolls 1	567	1356		375	1619	NS1sg
Skyrim: Elder Scrolls 2	877	1140		495	1499	NS1sg
COD: Modern Warfare (2019) 1	614	1260		925	2097	NS1sg
COD: Modern Warfare (2019) 2	877	1619		710	1571	NS1sg
COD: Modern Warfare (2019) 3	1069	1595		1308	2384	NS1sg
COD: Modern Warfare (2019) 4	710	1547		806	1595	NS1sg
Instagram influencers						
Cristiano Ronaldo (LV2) 1	662	1260		423	2216	1SG
Cristiano Ronaldo (LV2) 2	877	1523		758	2097	1SG
Cristiano Ronaldo (LV2) 3	578	1356		710	1547	NS1sg
Cristiano Ronaldo (LV2) 4	805	1212		495	758	1SG
Kylie Jenner 1	622	805		806	1069	NS1sg
Kylie Jenner 2	782	1738		686	1977	1SG
Kylie Jenner 3	638	1752		327	1690	NS1sg

Kylie Jenner 4	830	1523		686	2097	1SG
Kylie Jenner 5	686	2073		447	2264	1SG
Selena Gomez 1	901	1810		945	2264	1SG
Selena Gomez 2	877	216		734	2384	1SG
Selena Gomez 3	1045	1690		925	2097	1SG
Selena Gomez 4	1093	1786		853	1164	1SG
Selena Gomez 5	949	2073		853	2264	NS1sg
The Rock 1	806	1714		303	1451	1SG
The Rock 2	853	1595		495	1882	1SG
The Rock 3	710	1451		782	1690	NS1sg
The Rock 4	710	1284		567	1666	1SG
The Rock 5	734	1499		519	1547	1SG