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**SYNCOPIC VARIATION: WEAK SYLLABLE DELETION IN THE DIALECTS OF  
SOUTHERN BRITISH ENGLISH**

MASTER THESIS

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## ABSTRACT

Since the 1970s, research on synchronic syncope in English, broadly identified as the optional deletion of the unstressed vowel (Dalby, 1984, Bérces, 2011, Ryu and Hong, 2013, Seo, 2015, Turcsán, 2017), has managed to only scratch the surface of the topic. The design of the conceptual framework, hindered due to the complex interplay of phonotactics, suprasegmental features, and sociolinguistic variables, remains a contested issue. This paper seeks to outline syncope in a more dialectally restricted manner, *i.e.*, focus on syncope patterns within the boundaries of non-rhotic accents widespread in Southern England. Taking into account the potential sociophonetic implications, both regionally marked and more standard accents were explored. The data was collected from two sources, namely the BBC (British Broadcasting Corporation) World Service five-minute news bulletins and video blogs published on the YouTube platform. Primarily applying descriptive methods, this study is directed towards a more phonetics oriented methodological framework (Dalby, 1984, Patterson *et al.*, 2001, Davidson, 2006), emphasising the aftermath effect of deletion on the surrounding environment. Meanwhile, analytical methods attempt to provide a potential explanation behind the identified patterns. The results of the study intend to contribute to a more aerial representation of syncope in English therefore recognising the significance of dialectal variation in its conceptualisation.

**Keywords:** syncope, weak vowel deletion, phonotactics, colloquial pronunciation, standard pronunciation, articulation.

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## INTRODUCTION

Borrowing an analogy from Mark Twain, John Algeo (1974, p. 22) illustratively compares syncope to the weather: “everybody talks about [it], but nobody does anything.” Even though phonological variation continues to be a productive and a rather extensively covered area in linguistics, the author notes that “obvious” sound changes, such as schwa omission from the weak syllable, have been overlooked in research to a great extent. A similar sentiment remains relevant over four decades later. As argued by Turcsán (2017, p. 3), synchronic syncope in English is largely ignored in theoretical works, leading to mostly intuitions driven empirical analyses, which tend to result in contradictory data (*cf.* Dalby, 1984 for American English, Głowacka, 2001 for British English). It should be noted that syncope is a cross-linguistic phenomenon and has been attested in several dialects of German (Keel, 1980), Dutch (Hickey, 1985), Spanish (Harris-Northall, 1990), Italian (Bafile, 2003), Arabic (Alahdal, 2019, Kabrah, 2019), Modern Hebrew (Pariante, 2021), *etc.*, yet its conceptual framework is not universally applicable as it seems to follow varying patterns in different languages. In Modern Hebrew, for example, the production of syncope is more restricted as it is closely tied to the morphology “whereby the bare stem is the unsuffixed form, and it loses its vowel due to the new phonological environment derived by suffixation” (Faust, 2019, p. 1). At the same time, English exhibits a more sporadic and unpredictable behaviour.

On the grounds of the generativist tradition (Zwicky, 1972a, Hooper, 1978, Dalby, 1984), a stress based typology seems to have become a fundamental feature in the descriptions of synchronic syncope in English. The prevailing definitions suggest that it refers to “variable elision of a weak, unstressed vowel, be it post-tonic like in 'boundary or pre-tonic as in pho'netic or pa'rade” (Turcsán, 2017, p. 3), *i.e.*, the affected syllable is characterised on the basis of the placement of the tonic stress. Indeed, one unifying aspect that often resurfaces in the literature, especially in phonetic studies (Dalby, 1984, Głowacka, 2001, Patterson *et al.*, 2003, Davidson, 2006, Ryu and Hong, 2013, Seo, 2015), is that the position of the tonic stress leads to varying probability of syncope, the post-tonic type resulting in more schwa-less forms than its pre-tonic counterpart. There is no consensus, however, on the typological categories. Some works argue (Carlotti *et al.*, 2009, Bérces, 2011) that stress seems to be a secondary parameter, while phonotactic well-formedness is foregrounded, emphasising phonotactically licit *versus* illicit sequences. At the same time, phonology oriented research (Szigetvári, 2007, Harris, 2011, Polgárdi, 2015), “concentrate[s] on formal representations” (Turcsán, 2017, p. 3) of the matter and tends to overall reject any typological oppositions. The post-tonic type is explained in parallel with syllabic consonant formation, whereas pre-tonic syncope is recognised merely as a fast speech phenomenon.

Without strongly established theoretical conventions, external factors likely influencing syncope continue to maintain a somewhat marginal role, with the exception of speech tempo. Its connection to

syncope was initially explored by Dalby (1984, pp. 52-53) within the boundaries of American English, where weak vowel deletion was prescribed a tempo dependent role both pre- and post-tonically. Profound impact of said paper on the conceptual design of syncope persists in contemporary research as well (Ryu and Hong, 2013, Seo, 2015, Turcsán, 2017) and dependency on speech tempo is often introduced as its defining property. Aside from tempo, relatively scarce evidence on the relationship between dialectal variation and syncope points to some accents showing stronger tendency to retain the schwa-full form than others (Dalby, 1984, Patterson *et al.*, 2003, and Davidson, 2006 for American English, Głowacka, 2001 for British English, Turcsán, 2017 for American, Lancashire, and Scottish English). Nevertheless, it remains unclear, which cross-dialectal features may stimulate higher or lower syncopation<sup>1</sup> rates as both purely phonology based characteristics and sociophonetic variables in syncope production hold only tentative results. Presumably, overlooking dialect-specific features, *i.e.*, viewing this concept as holistic cross-dialectally, may be highlighted as one of the fundamental factors that gives rise to very broad generalisations that do not necessarily accurately represent how syncope operates. This paper therefore aims to provide a more aerial outline of syncope, focusing on non-rhotic dialects widespread in the Southern parts of England. To achieve that, the following objectives were set:

1. to evaluate the role of cross-dialectal variation with regard to weak vowel deletion, thereby contributing to a more comprehensive theoretical framework of syncope in English;
2. to determine which variables, namely stress, phonotactic acceptability, and schwa-flanking articulatory contexts tend to show more resilience to syncopation within the boundaries of the analysed speech samples;
3. to analyse the sociophonetic implications, which may be drawn from the syncopical patterns identified in the sample.

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<sup>1</sup> Both syncope and syncopation are terms attested in the literature (Polgárdi, 2015, p. 414), however, it is not exactly clear whether the two can be used interchangeably. In this paper, the distinction is made that syncopation refers to the process of deletion, whereas syncope may be understood as the result.

# 1. THE THEORETICAL DEVELOPMENT OF SYNCOPE

One of the earliest accounts on syncope in English may be attributed to Bloomfield (1933, p. 382), who opts for a diachronic perspective, recognising syncope as vowel loss from word-medial positions. Such change may be illustrated diachronically through such items as *stones*, monosyllabic in Modern English, as opposed to *stānas*, bisyllabic in Old English (OE) (see Hickey, 1986, pp. 359-366 for an overview of diachronic syncope in OE). The conceptualisation of synchronic syncope, on its behalf, to a greater extent remained neglected until the second half of the 20<sup>th</sup> century. The 1970s and 1980s seem to have been particularly fruitful as the most exhaustive works concerning syncopic variation in English are condensed in this period (Zwicky, 1972a, Algeo, 1974, 1978, Hooper, 1978, Dalby, 1984), theoretical frameworks of which continue to serve as an important point of departure in contemporary research as well.

Syncope is broadly interpreted as the “(total) deletion of a zero-stressed vowel (schwa) between consonants, which is accompanied by compression (resyllabification)” (Bércecs, 2011, p. 27). Several authors (Manuel *et al.*, 1992, Beckman, 1996, Davidson, 2006, Geng *et al.*, 2010), however, have expressed doubts whether claims of total deletion<sup>2</sup> of the vowel in question can be sustained. This is specifically relevant in cases when phonotactically licit onsets are produced, hypothetically generating new sets of homophonous items (*e.g.*, *sport* and *support*). As some research data has shown, there are reasonable grounds to assume that “where the schwa appears impressionistically to be deleted, there is still phonetic evidence on the surface” (Davidson, 2006, p. 81), hence alluding to gestural overlap, not categorical deletion. In the case of pre-tonic syncope, spectral data tends to show residual acoustic matter. For instance, in newly produced [s] + obstruent sequences, remnants of schwa manifest through “unusual acoustic artifacts” (*ibid.*, p. 98), more notably, aspiration maintenance or variation in voice onset time. For this reason, licit non-syncopic clusters, such as [sp] in *sport*, and syncopic sequences, such as [sp] in *support*, should not be equated as they appear to exhibit distinct acoustic properties, which allows to discriminate between the two via patterns of overlap.

What regards the affected element, there are some conflicting statements whether syncope refers exclusively to the deletion of schwa. Pérez (1992, p. 120), for example, suggests that schwa is not the only vowel susceptible to syncopation and reports that [u], (*e.g.*, *ambulatory*) as well as, within the scope of British English, [o] (*e.g.*, *lavatory*) can be syncopated. Besides a restricted variation in [u] and [o]<sup>3</sup>, primarily referencing American English, Algeo (1974, pp. 27-28) provides a brief explanation on [i]

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<sup>2</sup> Deletion itself is a term that has been recognised as a multifaceted notion, conceptualisation of which varies based on different conventions across linguistic areas. Most commonly, opposition between linear and non-linear segmental deletion is reported in the literature (see Harris, 2011, pp. 1602-1604 for a detailed overview).

<sup>3</sup> The author opts for the [u] and [o] symbols and does not specify the used transcription. The closest equivalents, following the latest IPA (International Phonetic Alphabet) version (International Phonetic Association, 2020) would be [ʊ] and [ɔ:] respectively.

behaviour in syncopic environments, which is mostly noticeable in derivatives. More precisely, adverbs ending in the *-ly* suffix preceded by a vowel appear to allow a higher degree of syncopic variation, for instance, *happily*. As the author explains (*ibid.*, p. 27), cross-dialectally, occurring in an unstressed position, [i] is frequently reduced to [ə], indicating that in such cases vowel reduction sets a precedent for syncopation rather than the original vowel<sup>4</sup> itself being susceptible to deletion.

Lastly, the notion of resyllabification and its role in the conceptualisation of syncope remains a contested issue. Even though the relocation of the segments could be described as the main attribute, scholars seem quite reluctant to deem it as a significant factor. As Turcsán (2017, pp. 8-9) puts it, from a deeply indoctrinated 19<sup>th</sup> century philological point of view, resyllabification implies that “members of the resulting secondary cluster are adjacent and need to be analysed either as complex onsets (his.**try**, di.**frent**) or coda-onset domains (fam.**ly**, cel.**ry**).” Upon syncope, the syllable parsing is generally determined via the sonority principle where in the onset clusters sonority increases. At the same time, the coda-onset domains demonstrate decreasing sonority. Syncope does not seem to favour phonotactically licit outcomes. Deletion is rather common in, for example, [vr] as in *favourite*, an ill-formed sequence, and is not consistently accepted in [lt] as in *reality*, which does accord with the consonant phonotactics (*ibid.*). Essentially, resyllabification fails to account for all instances of syncope and is advised to be avoided in contemporary descriptions (Polgárdi, 2015, Turcsán, 2017). Taking all into account, it may be suggested that a re-evaluation of the matter is due. The following sections, 1.1., 1.2., and 1.3., therefore attempt to provide a concise overview of previous studies, that would allow to specify which theoretical aspects require more attention as well as the possible reasons for their misinterpretation.

## 1.1. The types of synchronic syncope

The earliest records of synchronic syncope in English (Zwicky, 1972a, Algeo, 1974, Hooper, 1978) distinguish two types of syncopation: the already mentioned pre- and post-tonic (also referred to as pre- and post-stress respectively, Bérces, 2011, p. 27). The former may be said to have been explored to a lesser extent, presumably due to the fact that in most literature it is attested as less restricted, occurring predominantly in fast and casual speech (Szigetvári, 2007, p. 415). Pre-tonic syncope encompasses items where the affected syllable is located before the tonic stress. Rhythmically, it “transforms a weak-strong-weak pattern into a strong-weak pattern” such as in *tomorrow* [tə'mɔr.əʊ] → [t'mɔr.əʊ], “or even a weak-strong pattern into a strong pattern” (Turcsán, 2017, p. 4), e.g., *police* [pə'li:s] → ['pli:s]. A somewhat secondary role of the pre-tonic type is asserted through quantitative

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<sup>4</sup> In most extreme examples, syncope encompasses consonant deletion from word-medial positions as well, such as “in *ever* > *e'er* and *boatswain* > *bosun*” (Trask, 1996, p. 347). It may be interpreted as a sub-type of elision alongside “aphaeresis, <...>, apocope, synaeresis, synizesis and synaloepha” (*ibid.*, p. 129).

data, which states that the probability of deletion in this case is much lesser compared to its post-tonic counterpart (Dalby, 1984, Patterson *et al.*, 2001, Ryu and Hong, 2013, Seo, 2015). This discrepancy may arise due to certain locations, *i.e.*, whether the affected syllable is positioned word-initially or medially, generating a more deletion-prone environment. In a study of syncope within the scope of British English carried out by Głowacka (2001, p. 88), for example, word-initial syncope, typically instances of the pre-tonic type, amassed 12.5 and 19.3 per cent in read and spontaneous speech respectively, compared to 53 and 49.6 per cent word-medially. The author explains such low syncope rates in the case of the former from a cognitively driven standpoint, the framework of Gestalt psychology, claiming that “word onsets play an important role in perception and the decoding of word meaning” (*ibid.*, p. 89), which leads to schwa maintenance. From a language system perspective, it has been suggested that word-initial deletion is heavily obstructed due to consonant phonotactics (Bérces, 2011, p. 35). More precisely, pre-tonic syncope is less likely to produce a phonotactically licit sequence, which may be the reason behind the lack of lexicalised items in this type.

Post-tonic syncope, in contrast, is described as operating on more constraint based grounds. As noted by Harris (2011, p. 1601), it is triggered when the affected element is located “between a stressed and an unstressed syllable where the consonant following the targeted vowel is a sonorant and more sonorous than the consonant preceding” consequently resulting in a series of prohibitions, which disallow syncope in certain environments. In an overview of post-tonic syncope, relying on the generativist observations (Zwicky, 1972a, Hooper, 1978), Polgárdi (2015, p. 396), identifies the following environments that prohibit deletion:

$$C_1 \text{ } \partial \text{ } C_2 \rightarrow C_1 C_2 / \textit{stressed V \_ \_ unstressed V}^5$$

(a) $\_ \_ C$ unstressed V	<i>sépar<u>ate</u><sub>A</sub></i>	[ˈsɛprət]	<i>sépar<u>ate</u><sub>V</sub></i>	*[ˈsɛpreɪt]
	<i>javel<u>in</u></i>	[ˈdʒævlɪn]	<i>facult<u>y</u></i>	*[ˈfæklti]
	<i>happ<u>en</u>ing</i>	[ˈhæpnɪŋ]	<i>happ<u>en</u>#</i>	*[ˈhæpn]
(b) $C_2 = \textit{sonorant}$	<i>def<u>in</u>ite</i>	[ˈdɛfnət]	<i>delic<u>ate</u></i>	*[ˈdɛlkət]
(c) $C_1 < C_2$	<i>mém<u>or</u>y</i>	[ˈmɛmri]	<i>col<u>on</u>y</i>	*[ˈkɒlni]

As shown in (a), post-tonic syncope is not allowed if an item follows a strong-weak-strong syllable pattern (*e.g.*, [ˈsɛp.ər.eɪt]<sub>v</sub>); if the schwa is flanked by a cluster and not a single consonant (*e.g.*, [ˈfæk.əl.ti]); if the affected area is located in a word-final closed syllable (*e.g.*, [ˈhæp.ən]<sup>6</sup>). Besides that, (b) and (c) refer to the impact of the surrounding phonological context, which holds that syncope is not

<sup>5</sup> C – consonant; V – vowel.

<sup>6</sup> This example in particular is somewhat questionable as a syllabic [ɹ] in *happen* is a commonly acknowledged variant in dictionaries (Wells, 2008a, Cambridge University Press, 2023) thus counter-arguing against the claim that “SCF can be regarded as a stage preceding syncope” (Polgárdi, 2015, p. 402).



possible in pre-obstruent environments (e.g., [ˈdɛl.ə.kət]) and the schwa-flanking consonants must adhere to the sonority principle<sup>7</sup> (e.g., [ˈkɒl.ə.ni]) (Polgárdi, 2015, p. 396). Although such restrictions are not accepted universally as there is some evidence that does not regularly conform to said constraints (Głowacka, 2001), the generativist tradition inspired framework persists.

Alternatively, a different typology has been proposed, which suggests that a stress based division is not as decisive and primary as it has traditionally been claimed to be. Licit as opposed to illicit syncope, i.e., “whether the resulting secondary cluster is part of the inventory of well-formed clusters (in English)” (Bérces, 2011, p. 27), serve as means to distinguish between the potential outcomes of deletion. For example, *police* would result in licit syncope, producing a [pl] cluster, whereas *tomorrow* would generate a phonotactically illicit [tm]. Irrespective of the phonotactic acceptability, following Carlotti *et al.* (2009) framework, both syncopical types initially generate “opaque clusters”. The syncopated vowel is supposedly traceable back as some acoustic matter is detectable, yet again indicating gestural overlap (only in the pre-lexicalisation stage). Provided that the phonotactics permit, syncopical variant will first undergo phonologisation, viz., “neutralise” (*ibid.*) any vocalic residue thus allowing an item to lexicalise. The dichotomy between pre- and post-tonic stress positions remains relevant in such phonotactics based classification nonetheless. Resistance to lexicalisation in pre-tonic environments, as explained by Bérces (2011, p. 35), emerges as a result of a more restricted phonotactic acceptability word-initially and “it is much more “difficult” for an emerging consonant sequence to be licit at the left edge and/or in pre-tonic position.” Stress placement is thereby disregarded as the inherent factor and replaced with an assumption that the behaviour of syncope is embedded in the phonology of the language.

Lastly, perhaps the most complex approach to syncope involves its link to syllabic consonant formation (SCF). While generally the comparison between the two is avoided in most mainstream descriptions, this relationship has been most extensively covered in the works of Szigetvári (2007) and Polgárdi (2015). This theory presumes that post-tonic syncope (the pre-tonic pattern is perceived as a different process) may be treated as a bi-product of SCF as both of the phenomena are governed by nearly analogous constraints. In a way, post-tonic syncope, though always optional, is seen as a consequence of SCF. “For each syncopated form, there is also a form with a syllabic consonant, and as a result there is ternary free variation, as in [ˈdʒɛn.ər.əl]/[ˈdʒɛn.ɹəl]/[ˈdʒɛn.rəl]” (Polgárdi, 2015, p. 402). All in all, although there are nuances this approach fails to explain, for example, “why syncope can apply after a consonant cluster or a long vowel” (*ibid.*, p. 419), it takes an ambitious step beyond the traditional interpretations and aims towards a more formal and government phonology oriented framework.

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<sup>7</sup> The most widely accepted order of most to least sonorous classes is: vowels – glides – liquids – nasals – voiced fricatives – voiced stops – voiceless fricatives – voiceless stops (Albert and Nicenboim, 2022, p. 5).

## 1.2. The potential variables influencing syncope in English

Despite being sparse, empirical data on syncope in English point to questionable methods and inaccurate samples in previous studies. Since there are no strict theoretical conventions, Bérces (2011, p. 29) notes that prior works tend to characterise syncope on the basis of intuition, which leads to a surprisingly diverse array of elements to consider. “[S]tress position, phonotactics, sonority, lexical frequency, word length, speech rate, dialect” (Seo, 2015, p. 150) have been put forward as possible contributors to weak vowel deletion. Nevertheless, there is no unanimous agreement amongst scholars as regards concrete variables that would consistently prove to be significant in the context of syncope; for every study that supports the role of a specific feature, there is evidence that counters it.

Amongst the most important aspects, the sonority effect, since the earliest generative approaches, has been identified as pivotal in terms of syncope production, according to which, greater sonority distance between schwa-flanking consonants results in more deletions (Seo, p. 155, 2015). For this reason, in an overview produced by Zwicky (1972a, p. 285), the scholar categorically argues that in C[ə]C sequences, where the right-flanking consonant is an obstruent, post-tonic syncope is strictly rejected. This claim is further supported by Hooper (1978, p. 196) who postulates that retention of schwa in pre-obstruent environments is required as not to violate what the author terms as the “universal syllable-structure conditions”.

Contrastingly, some later works, more notably a surge of corpus-based studies, challenged this idea as the collected data did not seem to accord with such theoretical generalisations. Though highly quantitative, a paper produced by Dalby (1984) may be described as one of the pioneering works attempting to characterise syncope empirically. Focusing on American English, the research consisted of extracts from television interviews with the intent to represent more casual speech, which was then supplemented by a reading task where the subjects were asked to produce a series of sentences in both slow and fast tempi (*ibid.*, pp. 14-15). An obstruent-flanking context proved to be not as resistant to syncope as initially considered both in pre- and post-tonic environments. In television interviews, for example, fricative + stop (*e.g.*, *support*, *president*) and sonorant + stop (*e.g.*, *politics*, *Democrats*) syncopic sequences resulted in 15 and 14 per cent deletions respectively, while stop + stop (*e.g.*, *attitude*, *depression*) ones were the least subject to syncope amassing only 2 per cent<sup>8</sup> (*ibid.*, p. 22). On the whole, the estimates do support the idea that in environments where the sonority difference between the surrounding consonants is maximum, the likelihood of syncope increases, yet at the same time the

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<sup>8</sup> It must be emphasised that such numbers should be evaluated cautiously. As Dalby’s (1984) work continues to be amongst the most extensive and widely cited pieces on syncope in English, it has been subject to a lot of criticism, which is above all directed towards certain methodological choices (see Carlotti *et al.*, 2009). The demarcation line between syncope and syllabic consonant formation is characterised rather superficially; “a phonetic study aimed at schwa deletion as such may classify *cam’ra* (< *camera*) and *butt’n* (< *button*) identically, which may undesirably skew the results” (Bérces, 2011, p. 30).

deletion patterns appear to be much more unpredictable and counter-intuitive compared to the traditional claims. As Bércecs (2011, p. 29) notes, in some cases, “sonorant-schwa-obstruent sequences have the highest deletion rate, while the reverse order may have the lowest one.” It may thus be implied that syncope does not necessarily operate depending on the sonority distance and variation in weak vowel deletion is likely to be more contextually conditioned.

Tempo has been acknowledged as one of the factors deeply ingrained in the conceptualisation of syncope as well, according to which an *a priori* assumption prevails that the higher the tempo, the more probable the deletion. Dalby’s (1984, p. 41) findings are particularly illustrative of such suppositions as syncope in slow-read speech resulted in a 6 per cent deletion rate on average, whereas in the case of fast-read, the number increased to 43 per cent. More recently, Turcsán (2017, p. 7) reports a 53 per cent syncope rate in fast speech as opposed to 34 per cent in normal pace, providing compelling enough evidence to claim that “tempo has a significant influence on both the overall number of syncope and the proportion of ungrammatical productions.” At the same time, it is not entirely clear **how** speech tempo contributes to a stronger tendency to syncopate, *viz.*, whether it interferes with co-articulation and if so, to what extent.

Contrastingly, several studies attempting to systematise weak vowel deletion in English account for completely opposite conclusions. In a corpus study conducted by Patterson *et al.* (2003, p. 53), for instance, no direct relation between syncope and tempo was identified. It is important to note, however, that the authors did not attempt to make a holistic approach in order to make a connection between the two. A small-scale supplementary study, consisting of two-syllable items with the highest deletion rates in the sample, namely *suppose* and *support*, was carried out ultimately resulting in no statistically significant differences between the variables. Correspondingly, Davidson (2006, p. 98) concludes that, within the scope of word-initial pre-tonic syncope, tempo *per se* may not be identified as a significant aspect. The author instead finds that “speakers can be divided into rate-dependent eliders and rate-independent eliders<sup>9</sup>” (*ibid.*), *i.e.*, inconsistent patterns of overlap arise due to intra-speaker variation.

Finally, a general assumption prevails that items exhibiting higher word frequency are more susceptible to syncope. Recognised as early as the 1970s by Hooper (1976), lexical diffusion would serve as the most likely interpretation to explain uneven syncope probability in pairs like *memory* and *mammary*, the latter showing much more resistance to deletion. Such claims, though, from a theoretical point of view, continue to be provisional at best. Drawing attention to methodological flaws, Bybee (2002, p. 288) observes that “[t]he weakness of [Hooper’s (1976)] experiment is that it relies on

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<sup>9</sup> The opposition between *elision* and *deletion* may be acknowledged in this case as the author opts for the former. Generally, *elision* may be understood as a broader term. It covers “[a]ny of various processes in which phonological material is lost from a word or phrase” (Trask, 1996, p. 129), whereas *deletion* is termed as “[t]he loss of a segment from a word or other phonological form” (*ibid.* p. 105). Thus, such processes as *synaloepha* are exclusively cases of elision as the affected area occurs across word boundaries (e.g., “*Th’Almighty*”, *ibid.*, p. 347).

self-report.” Similarly, somewhat tentative, yet still prominent connections between deletion rates and word frequency are found in a study conducted by Turcsán (2017, p. 8). The author concludes that “[c]learly, word-frequency seems to play a pivotal role in the probability of syncope although the general paucity of trisyllabic tokens in our conversations does not allow us to link our tokens with lexical frequency figures.” Overall, the relationship between the two is presupposed to be significant, despite lacking reliable and non-introspective data to confirm it. On the contrary, some studies, most notably the works by Patterson *et al.* (2001, 2003), consistently find a very weak effect of word frequency on syncope rates and tend to overall discard it as a relevant variable.

All in all, it may be concluded that a relatively varied set of elements possibly affecting the behaviour of syncope has been introduced into its conceptualisation. Their role and exact function remain a matter of debate as most literature seems to show contradictory data thus hindering the development of a unanimous theoretical framework while simultaneously setting the scene for promising future research prospects.

### **1.3. The status of syncope in English**

Syncope is a highly complex notion that retains a dubious theoretical status. One of the main concerns that obstructs the conceptualisation of synchronic syncope in English, is the lack of consensus on which features should be foregrounded as primary. The majority of insights on weak syllable deletion stem from quantitative data, which tends to perceive syncope as more of a phonetic concept (Patterson *et al.*, 2003, Davidson, 2006), *i.e.*, the deleted vowel is seen as recoverable due to the acoustic effect it leaves on the flanking context. At the same time, several accounts (Carlotti *et al.*, 2009, Bérces, 2011) presume that once phonologisation occurs, syncope variants may lexicalise without any acoustic residue, hence requiring a status of a phonological notion.

Although no specific label has been prescribed to it, since the earliest sources (Zwicky 1972a, Algeo, 1974, 1978, Hooper, 1978, Dalby, 1984) synchronic syncope in English has been recognised as an immensely influential process, leaving a considerable mark in the phonological shape of a language. Aside from being considered as embedded into the system, Algeo (1974, p. 29) notes that syncope “depends on a wide variety of nonphonological factors and thus challenges simplistic notions” as well as provides significant insight into how phonotactics may be defied. A more systematised and analytically oriented reassessment might therefore contribute to clarifying some theoretical controversies and elucidating the underlying characteristics of syncope.

## 2. METHODOLOGY

The first stage of the research consisted of audio data collection and processing. The material was extracted from two sources, namely the BBC (British Broadcasting Corporation) website and YouTube, specifics of which are covered more extensively in the 2.2. sub-section. As regards the BBC, the set resulted in 45 minutes of audio data retrieved from the five-minute news bulletins, which span from 9<sup>th</sup> of April, 2022 through 2<sup>nd</sup> of February, 2023.

The data from the YouTube set, published from 3<sup>rd</sup> of March, 2018 through 1<sup>st</sup> of February, 2023, amounted to a total of 133 minutes and 41 seconds and is publically available on the YouTube platform. The audio recordings were edited with Audacity 2.4.2 (2020), which was used to remove segments not involving the informant and thus prepare the material for an orthographic transcription. Carried out via otter.ai (2023), the transcripts served as means to locate the potential cases of syncope.

### 2.1. The method

A similar methodological framework can be found in Głowacka's (2001) work, which primarily relies on spectrographic data for the item evaluation. As the author notes (*ibid.*, p. 72), especially in voiceless flanking environments, spectrograms are particularly informative, since in the case of syncopation vocal cords movement would not be visible. In order to assess the collected items, Praat 6.2.10 software (Boersma & Weenink, 2022) was employed in this paper. The items were categorised according to two typologies: the stress based (pre- *versus* post-tonic) and consonant phonotactics based (licit *versus* illicit). For the latter, Bérce's (2011, pp. 33-34) interpretation of the potential outcomes of syncope, *i.e.*, a branching onset and a coda or a bogus cluster, was relied upon in order to determine the acceptability of the newly generated sequence. One additional criterion, which had to be satisfied for an item to qualify as licit, was maintenance of decreasing sonority across coda-onset domains. Cambridge University Press (2023) online dictionary was referred to as a guide for determining the syllable boundaries for the schwa-full forms. Certain items, for example *battery* ['bæt.ə.ri], despite [tr] being an attested cluster in English, were thus coded as potentially leading to illicit syncope as upon deletion coda would be succeeded by a more sonorous element in the onset (['bæt.ri]). Given the magnitude of the affected items, instances containing consonant clusters, be it in onset (*e.g.*, *library* ['laɪ.brə.ri]) or coda (*e.g.*, *recently* ['ri:.sənt.li]) positions, were not included in the sample. Following Dalby's (1984) paper, the analysis was then complemented by examining schwa-flanking articulatory contexts, which involved manner and place of articulation as well as voicing.

Finally, MS Excel was used to categorise and prepare the gathered data for the statistical analysis, which was conducted via the SPSS 26 (2019) software. Two tests were applied to determine whether statistically significant differences ( $p < 0.05$ ) may be identified between concrete variables: Pearson's

Chi-square ( $\chi^2$ ) and two-tailed Fisher's Exact Test. The null hypothesis was that there are no statistically significant differences.

## 2.2. The informants

For the purpose of this thesis, the sample consists of two sets: data extracted from the BBC World Service five-minute news bulletins published on [www.bbc.co.uk](http://www.bbc.co.uk) and video blogs uploaded on YouTube. Such opposition between the informants was chosen taking into account the rather scarce insight on syncope as a dialect-dependent phenomenon expressed in previous research (Davidson, 2006, Bércecs, 2011, Turcsán, 2017). The news reporters, despite the acknowledged changing situation in terms of accent diversity in British news media (Hannisdal, 2005, 2006, Cobacho, 2018), were considered as representatives of a less regionally marked pronunciation. Based on the descriptions of modern standard spoken British English found in Cruttenden's (2014) overview, the main diagnostic features that would determine the suitability of the informant in the BBC set were non-rhoticity, the opposition between [æ] and [ɑ:] (e.g., *castle* ['kɑ:.səl] as opposed to ['kæs.əl]) as well as the lack of glottal stops. In total, the BBC data set consists of 15 reporters; 8 males and 7 females.

Less stringent requirements were implemented for the video bloggers set. In terms of accent features, non-rhoticity was central. On the basis of publically available information regarding the informants' origin, which is generally provided in the channel's "about" section, an attempt was made to ensure that the accents would represent the speech widespread in Southern parts of England. The dominant accents in this set are therefore Cockney, Estuary English, and Multicultural London English. The data was collected from 15 informants; as in the BBC set, the YouTube video bloggers sample includes 8 males and 7 females.

## 2.3. The sample

Particularly in the YouTube video bloggers set, the content tends to be focused on a specific topic, resulting in continuous repetition of certain items, which may skew the data. To overcome this, a restriction of five of the same items per 1000 words was implemented. Overall, 1181 instances were identified that may potentially result in syncope, 697 of which were extracted from the YouTube video bloggers set and the remaining 484 from the BBC news readers set. According to a tonic stress based classification, the items distribute rather evenly with a slightly higher number of potential syncope locations in the pre-tonic position (Table 1).

**Table 1.** The distribution of the items according to the tonic stress placement across the two sets.

	The BBC news readers set		The YouTube video bloggers set	
Types	Post-tonic	Pre-tonic	Post-tonic	Pre-tonic

<b>Frequency</b>	215 (44.42%)	269 (55.58%)	311 (44.62%)	386 (55.38%)
	484		697	
<b>Total frequency</b>	1181			

A completely different situation is observed in the phonotactic acceptability based classification where upon syncope the absolute majority of the items, *i.e.*, 331 (68.39 per cent) and 559 (80.20 per cent) instances in the BBC news readers and YouTube video bloggers sets respectively would potentially generate illicit sequences. The distribution of licit as opposed to illicit potential syncope locations is presented in Table 2.

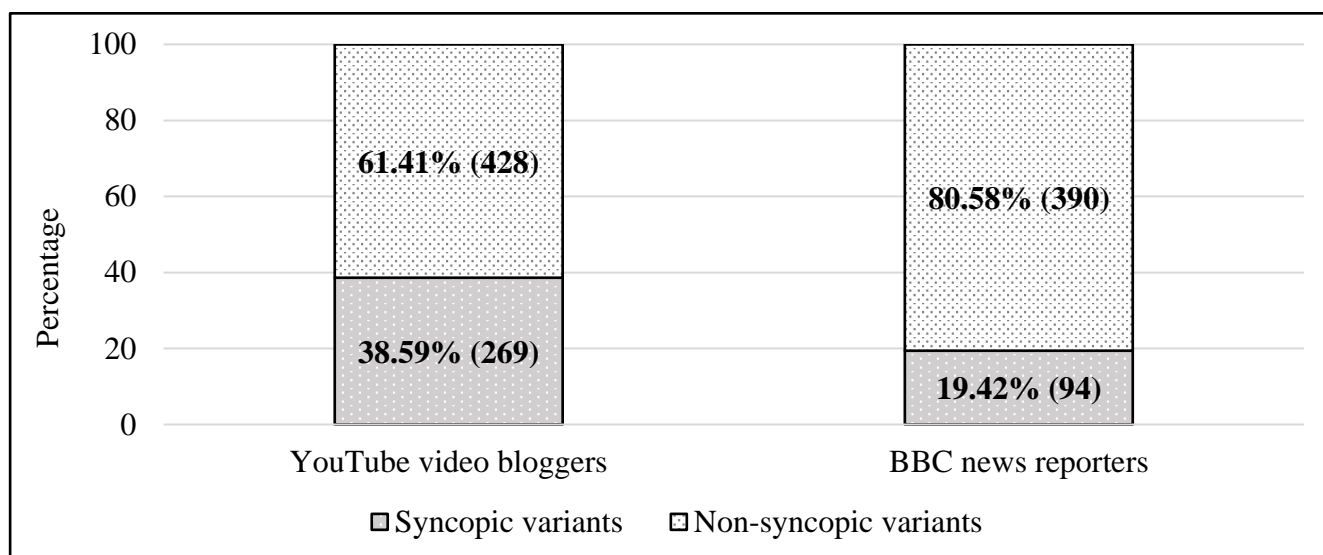
**Table 2.** The distribution of the items according to phonotactic acceptability across the two sets.

	<b>The BBC news readers set</b>		<b>The YouTube video bloggers set</b>	
<b>Types</b>	Licit	Illicit	Licit	Illicit
<b>Frequency</b>	153 (31.61%)	331 (68.39%)	138 (19.80%)	559 (80.20%)
	484		697	
<b>Total frequency</b>	1181			

Such overwhelming disparity may be explained by the fact that in the case of pre-tonic syncope, which comprises the majority of instances in this sample, the potential weak vowel deletion locations are most commonly established in word-initial positions. The onsets generated under such conditions must either exhibit rising sonority or produce [sp, st, sk] clusters to qualify as licit (Davidson, 2006, p. 34). Indeed, a greater part of the items in both sets fall under the illicit pre-tonic potential syncope as 199 (41.12 per cent) of such cases were found in the BBC set and 325 (46.63 percent) in the YouTube video bloggers'. At the same time, the licit pre-tonic potential syncope locations yielded the least instances: 70 (14.46 per cent) and 61 (8.75 per cent) cases in the BBC news reporters and YouTube video bloggers sets respectively, confirming the pre-tonic type as the main contributor of phonotactically illicit sequences.

### 3. SYNCOPE IN THE SPEECH OF BBC RADIO NEWS READERS AND YOUTUBE VIDEO BLOGGERS

The analysis revealed that non-syncopic forms prevail in the sample. A stronger preference for schwa-full variants was observed in the BBC (80.58 per cent), whereas a less dramatic discrepancy between syncopic and non-syncopic forms was found in the YouTube set. The distribution of the schwa-full as opposed to schwa-less instances across the two sets is presented in Figure 1.



**Figure 1.** The distribution of syncopic and non-syncopic variants in the two sets.

$\chi^2 = 49.320$ ;  $p$ -value = 0.000; Fisher’s Exact Test,  $p$ -value = 0.000

The statistical data indicates that the background of the informants and the syncopation rates show statistically significant differences. One of the interpretations of such numbers would accord with the generalisations found in some literature (Zwicky, 1972a, Algeo, 1974, Hooper, 1978, Turcsán, 2017), which tend to support the idea of syncope as a dialect sensitive phenomenon. More recently, a corpus-based study conducted by Turcsán (2017, p. 8), for instance, finds that pre-tonic syncope is “more widespread in American English regardless of phonotactics, in Scottish English it is limited to well-formed secondary clusters (obstruent + sonorant) while in Lancashire it is more sporadic.” It may be implied that dialect-specific features, such as rhoticity, alternating stress (e.g., *comparable* [‘kɒm.pə.rə.bəl] versus [kəm’pær.ə.bəl], Lindsey, 2019, p. 80), intensity of vowel reduction, etc., could be amongst the factors that contribute to the behaviour of syncope.

Alternatively, the disparity between the two sets may be explained through a more socially conditioned perspective. For example, having undergone syncope, some items produce consonant sequences extending through coda-onset domains and such cases are “stigmatized as substandard



regional pronunciations”<sup>10</sup> (Hooper, 1974, p. 191), *i.e.*, phonotactically illicit syncopic items are prescribed a colloquial role. Perhaps a more general claim could be made along the same lines that conservative dialects may be less subject to syncopation, particularly given the historical development and the social context behind the speech of the BBC presenters (Lindsey, 2019, p. 3), as a means to restrain the influence of regionalisms.

Additional factor to consider is the “conversational setting” (Patterson *et. al*, 2003, p. 63). The informants from the BBC set produced read speech, whereas YouTube video bloggers, though generally pre-meditated, spontaneous speech, alluding that the disparity in syncope rates may stem from a production point of view. This interpretation would not accord with Dalby’s (1984, p. 87) findings on the speech of television broadcast presenters and read material from the informants, which do not support the circumstances of speech production as a significant variable. Instead, the author claims that “slow reading, conversation, and fast reading, could be usefully viewed as a rough continuum of tempo/style from least to most reduced” identifying syncope as tempo rather than context dependent. Regardless, the data in this sample suggests that sociophonetic implications may be regarded as a likely contributor to syncope rates. Moving onto a more segment oriented analysis, the following sub-sections overview the behaviour of syncope with respect to stress (3.1.), phonotactic acceptability (3.2.), and central articulatory properties (3.3., 3.4., 3.5.).

### 3.1. Stress

Non-syncopic forms were dominant in the sample, particularly when the affected syllable was positioned before the syllable bearing the tonic stress. Overall, pre-tonic non-syncopic items amassed a total of 49.62 per cent. In the BBC set, 267 items were marked as instances of potential pre-tonic syncope and 217 cases as the post-tonic type. As presented in Table 3, the numbers indicate a strong preference to preserve the schwa-full forms when the weak vowel is located before the tonic syllable. Pre-tonic type items syncopated at an approximately two per cent rate. Post-tonic syncope, in contrast, proved to be a much more favourable environment for syncopation, resulting in a 41.01 per cent of deletions.

**Table 3.** The distribution of syncopic and non-syncopic variants based on the tonic stress placement in the BBC news reporters set.

Stress type	Syncopic variants		Non-syncopic variants		Total frequency
	Frequency	Percentage	Frequency	Percentage	
1. Pre-tonic	5	1.87%	262	98.13%	267
2. Post-tonic	89	41.01%	128	58.99%	217

$\chi^2 = 117.190$ ;  $p\text{-value} = 0.000$ ; Fisher’s Exact Test,  $p\text{-value} = 0.000$

<sup>10</sup> The author provides *America*, *imperative*, *Carolina*, *guarantee*, *skeleton*, and *Europe* as stigmatised, but possible, especially in the dialects of “the southern and south-western United States” (Hooper, 1974, p. 191).

The instances of pre-tonic syncope included *communities* (1), *operations* (2), *police* (1), and *support* (1). Some residual acoustic matter that does not follow the general behaviour of specific sequences was found within these items. *Police*, which upon syncope produces a [pl] onset, would presumably result in a devoiced [ɿ], yet a fully voiced [l] was preserved. On a similar note, an aspirated [p<sup>h</sup>] was present in the case of *support*, which is not accepted in [sp] clusters. Aspiration was present in *communities* as well, however, it is problematic to evaluate as it produces an onset not attested in the English language. Irrespective of that, no trace of vocalic substance was found up until the transition to [m]. Finally, as spectrographic data showed, one case of *operations* resulted in [pr], whereas the other produced a sequence that would perhaps be best described as containing a voiceless bilabial fricative (*i.e.*, [pʰ.ˈreɪ.ʃənz]). The preliminary tendency to maintain some acoustic residue, particularly under the pre-tonic conditions, would align with the contributions from Davidson’s (2006, p. 81) work on syncope, and may be interpreted as traces of schwa emerging via gestural overlap. Moreover, the pre-tonic type, as it has been established, is less likely to undergo phonologisation (Bércecs, 2011, p. 34), which would explain the tendency to retain traces of schwa in the flanking context.

As regards post-tonic syncope, the deletion rates increased considerably, which re-affirmed the data described in previous studies (Ryu and Hong, 2013, Seo, 2015, Turcsán, 2017) suggesting that when the affected element is located after the tonic syllable, it is more prone to deletion. The significance between syncope and stress placement in the BBC news readers set was confirmed by the statistical analysis. It is noteworthy, though, that while in the case of pre-tonic syncope the produced clusters would tend to preserve some acoustic characteristics from the non-syncope forms, deletions in post-tonic environments set a precedent for further phonological processes. Amongst them, palatalisation in the newly generated [tr, dr] sequences was the most noticeable succeeding feature. Items such as *factory* (1), *federal* (4), and *military* (12) were all realised as [ˈfæk.tʃrɪ], [ˈfedʒ.rəl], and [ˈmɪl.ɪtʃrɪ] respectively.

In the YouTube video bloggers set, 386 possible instances were located for potential syncope in the pre-tonic position, whereas 311 items marked for post-tonic syncope. What concerns the former, amassing a 16.06 per cent deletion rate, the pre-tonic type proved to be more susceptible to syncope compared to the figures found in the BBC set. Additionally, the absolute majority, nearly 70 per cent, of the post-tonic cases resulted in syncope. The summary of the results concerning schwa-full and schwa-less forms in terms of the tonic stress placement in the YouTuber set is presented in Table 4.

**Table 4.** The distribution of syncope and non-syncope variants based on the tonic stress placement in the YouTube video bloggers set.

Stress type	Syncope variants		Non-syncope variants		Total frequency
	Frequency	Percentage	Frequency	Percentage	
1. Pre-tonic	62	16.06%	324	83.94%	386
2. Post-tonic	207	66.56%	104	33.44%	311

$\chi^2 = 185.319$ ;  $p\text{-value} = 0.000$ ; Fisher’s Exact Test,  $p\text{-value} = 0.000$

The format of the video blogs and the overall less stringent stylistic constraints might be the reason which contributed to a greater number of syncopic variants, especially in the pre-tonic position. One item in particular, namely *because* (67), may have boosted the figures in this category. “Drastic repair strategies” (Bérces, 2011, p. 34) were commonly applied in this case often resulting in complete deletion of the syllable (*i.e.*, ‘*cause* [‘kəz]), however, not consistently and the informants would alternate between the two syncopic variants. No other instances of full syllable deletion were recorded in the pre-tonic type. Amongst the most complex items in this set, *literally* (7) may be highlighted. The non-syncopic four-syllable form [‘lit.ə.rə.li] contains two locations in the post-tonic position that could potentially syncopate and in six cases, both weak vowels were deleted. Palatalisation was also triggered resulting in a variant similar to [‘litʃ.li]. In instances where only one syllable would undergo syncope, the [tər] sequence appears to be a likelier option. One alternative syncopic variant succeeded by palatalisation, [‘litʃ.rə.li], was recorded. All in all, analogously as in the BBC, the figures in the YouTube video bloggers set are on par with the general tendencies recorded in previous studies (Dalby, 1984, Ryu and Hong, 2013, Seo, 2015, Turcsán, 2017). Post-tonic syncope was strongly favoured by the informants as opposed to the pre-tonic type, which was supported by the statistical analysis as well.

### 3.2. Phonotactic acceptability

Due to an overwhelming number of illicit syncope locations, the numbers are complicated to evaluate, yet some statistically grounded generalisations can be made. Overall, the items were least likely to syncopate when deletion would lead to a phonotactically illicit sequence; 22.61 per cent such syncopic items were recorded in the sample. The items in the BBC set syncopated at a similar rate under both conditions: while illicit syncope locations demonstrated an 18.04 per cent deletion rate, licit environments only slightly increased at 22.02 per cent (Table 5).

**Table 5.** The distribution of syncopic and non-syncopic variants based on the phonotactic acceptability in the BBC news reporters set.

Phonotactic acceptability	Syncopic variants		Non-syncopic variants		Total frequency
	Frequency	Percentage	Frequency	Percentage	
1. Illicit	57	18.04%	259	81.96%	316
2. Licit	37	22.02%	131	77.98%	168

$\chi^2 = 1.113$ ;  $p$ -value = 0.291; Fisher’s Exact Test,  $p$ -value = 0.334

Syllable well-formedness remains a questionable variable in the context of syncope as it often leads to contradictory conclusions. In an attempt to explain syncope patterns on the basis of the surrounding phonological context, Dalby (1984, p. 89), for instance, concludes that “unstressed vowels are about twice as likely to be deleted in environments where the remaining consonants can be resyllabified into onsets or codas that occur in careful speech forms than where they cannot.” At the same time, Davidson (2006, p. 104) rejects phonotactic acceptability as a factor directly contributing to

syncope rates and emphasises the effect of co-articulation instead. The data from this sample seems to be in support of the latter as no statistically significant differences were found in terms of the phonotactic acceptability of the potentially generated sequences and syncope.

A similar situation persists in the YouTube video bloggers set. The overall deletion rates showed an increase in comparison with the BBC set as the illicit environments amassed 37.57 per cent syncopic variants, whereas in phonotactically well-formed contexts the figure rose to 42.75 per cent, as presented in Table 6.

**Table 6.** The distribution of syncopic and non-syncopic variants based on the phonotactic acceptability in the YouTube video bloggers set.

Phonotactic acceptability	Syncopic variants		Non-syncopic variants		Total frequency
	Frequency	Percentage	Frequency	Percentage	
1. Illicit	210	37.57%	349	62.43%	559
2. Licit	59	42.75%	79	57.25%	138

$\chi^2 = 1.256$ ; p-value = 0.262; Fisher's Exact Test, p-value = 0.283

No statistically significant differences were found in this set of items, further supporting the idea that phonotactic well-formedness is not necessarily the controlling factor in determining the probability of syncope. The following sub-sections 3.3.-3.5. therefore attempt to overview syncope in the light of the articulatory features of the schwa-flanking environment.

### 3.3. Manner of articulation

In this data sample, right-flanking approximant environments in particular could be described as more prone to syncope, whereas right-flanking plosive contexts syncopated substantially less. In the BBC set, 22 different combinations of schwa-flanking manner of articulation were found. The fricative + plosive (68), plosive + approximant (65), and plosive + nasal (59) environments host the most items, whereas fricative + affricate (1), nasal + affricate (1), and plosive + affricate (1) sequences resulted to be the most infrequent. Low frequency items were not discarded from the sample as to demonstrate the commonality of some contexts. A detailed overview of syncope rates according to the surrounding manner of articulation is provided in Table 7.

**Table 7.** The distribution of syncopic and non-syncopic variants based on the flanking manner of articulation in the BBC news reporters set.

Schwa-flanking manner of articulation	Syncopic variants		Non-syncopic variants		Total frequency
	Frequency	Percentage	Frequency	Percentage	
1. F[ə]P	11	16.18%	57	83.82%	68
2. P[ə]Ap	30	46.15%	35	53.85%	65
3. P[ə]N	2	3.39%	57	96.61%	59
4. Ap[ə]P	1	2.22%	44	97.78%	45
5. P[ə]P	1	2.50%	39	97.50%	40
6. P[ə]F	-	-	39	100%	39

7. F[ə]Ap	16	48.48%	17	51.52%	33
8. F[ə]N	24	80.00%	6	20.00%	30
9. F[ə]F	-	-	27	100%	27
10. N[ə]F	1	5.88%	16	94.12%	17
11. N[ə]Ap	4	23.53%	13	76.47%	17
12. Ap[ə]F	-	-	13	100%	13
13. N[ə]N	-	-	6	100%	6
14. Af[ə]Ap	2	40.00%	3	60.00%	5
15. Af[ə]N	2	40.00%	3	60.00%	5
16. Ap[ə]N	-	-	4	100%	4
17. Ap[ə]Af	-	-	3	100%	3
18. N[ə]P	-	-	3	100%	3
19. Ap[ə]Ap	-	-	2	100%	2
20. F[ə]Af	-	-	1	100%	1
21. N[ə]Af	-	-	1	100%	1
22. P[ə]Af	-	-	1	100%	1

Af = affricate; Ap = approximant<sup>11</sup>; F = fricative; N = nasal; P = plosive.

$\chi^2 = 172.797$ ; p-value = 0.000; Fisher's Exact Test, p-value = 0.000

The combinations which appear to be the most susceptible to syncope, included fricative + nasal (80 per cent), fricative + approximant (48.48 per cent), and plosive + approximant (46.15 per cent). What concerns the former, [vm], emerging as one of the rare instances of full syllable deletion in the post-tonic type, was prominent in *government* (12), where only one instance of a non-syncope variant was found. One more fricative + nasal sequence that syncope at a high rate in the BBC news readers set, resulted to be [jn], particularly, when the affected area was succeeded by the *-al* suffix, e.g., *national* (9). Amongst less frequent combinations occurring at a root level, one instance of [zn] was recorded in *prisoners* (1).

A different fricative right-flanking environment which syncope at a rather high rate is the fricative + approximant combination where syncope and non-syncope forms distributed roughly evenly at 48.48 and 51.52 per cent respectively. In this case, syncope appears to be most well-established in the [vr] sequence, e.g., *discovery* (4) and *several* (7); additionally, one instance of syncope was recorded in [fr], namely *suffering* (1). It should be noted, though, that in the case of the latter, the post-tonic position seems to be favoured over the pre-tonic as items containing the same [fr] sequence, e.g., *referendum* (2), retained the schwa-full forms. Similarly, syncope was encountered in the post-tonic C + [l] environments: [fl], e.g., *specialist* (1), [vl], e.g., *heavily* (1), and [θl], e.g., *catholic* (1), yet deletion was not present in the pre-tonic [sl], e.g., *isolation* (1) and *solution* (1). In general, such figures partially accord with Dalby's (1984, p. 23) findings on the schwa-flanking manner of articulation, based on which fricative + sonorant sequences would show higher deletion rates, viz., 11 per cent. The role of flanking

<sup>11</sup> For the purposes of this study, the semivowels ([w], [j]) and laterals ([l], [r]) were categorised as approximants.

manner of articulation as an influential variable was supported by statistical analysis as statistically significant differences were found.

As in the BBC set, 22 combinations potentially resulting in syncope were identified in the YouTuber set. The majority of the items were concentrated in the plosive + plosive (164), fricative + approximant (93), and plosive + fricative (71) environments. The most infrequent sequences were nasal + fricative (1), approximant + affricate (2), and plosive + affricate (2) (Table 8).

**Table 8.** The distribution of syncopic and non-syncopic variants based on the flanking manner of articulation in the YouTube video bloggers set.

Schwa-flanking manner of articulation	Syncopic variants		Non-syncopic variants		Total frequency
	Frequency	Percentage	Frequency	Percentage	
1. P[ə]P	45	27.44%	119	72.56%	164
2. F[ə]Ap	64	68.82%	29	31.18%	93
3. P[ə]F	12	16.90%	59	83.10%	71
4. P[ə]N	11	16.18%	57	83.82%	68
5. P[ə]Ap	38	57.58%	28	42.42%	66
6. F[ə]P	12	21.05%	45	78.95%	57
7. N[ə]Ap	50	87.72%	7	12.28%	57
8. F[ə]N	19	44.19%	24	55.81%	43
9. Ap[ə]N	-	-	12	100%	12
10. Ap[ə]P	5	50.00%	5	50.00%	10
11. Af[ə]Ap	8	88.89%	1	11.11%	9
12. Ap[ə]F	-	-	9	100%	9
13. F[ə]F	-	-	7	100%	7
14. Af[ə]N	5	83.33%	1	16.67%	6
15. F[ə]Af	-	-	6	100%	6
16. N[ə]P	-	-	5	100%	5
17. Ap[ə]Ap	-	-	3	100%	3
18. N[ə]Af	-	-	3	100%	3
19. N[ə]N	-	-	3	100%	3
20. Ap[ə]Af	-	-	2	100%	2
21. P[ə]Af	-	-	2	100%	2
22. N[ə]F	-	-	1	100%	1

Af = affricate; Ap = approximant; F = fricative; N = nasal; P = plosive.

$\chi^2 = 197.553$ ; p-value = 0.000; Fisher's Exact Test, p-value = 0.000

With regard to more frequent sequences, syncope was strongly preferred in nasal + approximant combinations (87.72 per cent) in this set. In instances where the item involved more than one potential syncope location, the informants generally opted to syncopate the nasal + approximant sequence, especially in words containing either *-al* or *-ally* suffixes, e.g., *occasionally* (1), *personally* (6), and *traditionally* (1). Furthermore, the syncopic forms of *camera* (15), *family* (7), and *general* (5) appear to be completely lexicalised within the boundaries of this set as all of these items were realised as schwa-less. Although not as categorical, similar tendencies are reflected in Dalby's (1984, p. 51) report on the

speech of television broadcasters, where the sonorant right-flanking environment amassed a 40 per cent deletion rate.

The fricative + approximant syncope patterns described in the BBC set apply for the YouTube set as well. Out of all combinations, deletion in the [vr] sequence seems to be favoured the most, *e.g.*, *average* (6), *coverage* (1), and *favourite* (6). The [fr] is likely to syncope in the post-tonic *different* (9) and *suffering* (3), however, in the three identified cases of the pre-tonic *forever* (3) syncope was resisted. One item that did exhibit a relatively high deletion rate was *absolutely* (7) thus generating a syncope [sl]. A stronger tendency of syncope in *absolutely* may be triggered due to alternating stress, which is recognised as a change-in-progress in standard spoken British English (Lindsey, 2019, p. 79). Retaining stress on the initial syllable would lead to post-tonic syncope, whereas a stressed penultimate syllable to pre-tonic. In the YouTuber set, seven cases of this item were found; two of them containing schwa in the pre-tonic position and the remaining five in the post-tonic. Neither position was more prone to syncope as the pre-tonic *absolutely* resulted in one deletion and one schwa-full form, while the post-tonic type amounted to three deletions and preserved the schwa in two. Amongst other identified sequences, [fl], *e.g.*, *hopefully* (4), [sr], *e.g.*, *answering* (2) *glycerine* (3), and [vl], *e.g.*, *travelling* (5) were commonly realised as schwa-full except for one non-syncope *answering* and *travelling* as well as two schwa-less forms of *glycerine*.

In sum, based on the data in this sample, the sonority principle does not seem to govern syncope *per se*. Schwa-flanking manner of articulation appears to be a more decisive factor regarding the probability of deletion. Partially in accordance with the generativist tradition (Zwicky, 1972a, Hooper, 1974, Polgárdi, 2015), pre-obstruent environments may be regarded as unlikely, though not completely unrealistic conditions to trigger syncope.

### 3.4. Place of articulation

Within the scope of this sample, schwa-flanking alveolar environments proved to be the most well-established, whereas combinations involving labiodentals were the most infrequent. The BBC set involved 18 schwa-flanking place of articulation combinations. The most frequent contexts included alveolar + alveolar (164), bilabial + alveolar (76), and velar + alveolar (48). The least common environments resulted to be alveolar + dental (1), labiodental + bilabial (1), and labiodental + velar (1) (Table 9).

**Table 9.** The distribution of syncope and non-syncope variants based on the flanking place of articulation in the BBC news reporters set.

Schwa-flanking place of articulation	Syncope variants		Non-syncope variants		Total frequency
	Frequency	Percentage	Frequency	Percentage	
1. Alv[ə]Alv	37	22.56%	127	77.44%	164
2. Bil[ə]Alv	9	11.84%	67	88.16%	76

3. Vel[ə]Alv	1	2.08%	47	97.92%	48
4. Alv[ə]Bil	1	2.33%	42	97.67%	43
5. Labd[ə]Alv	21	61.76%	13	38.24%	34
6. Alv[ə]Labd	4	12.12%	29	87.88%	33
7. Post-alv[ə]Alv	16	66.67%	8	33.33%	24
8. Alv[ə]Vel	1	5.00%	19	95.00%	20
9. Vel[ə]Bil	2	15.38%	11	84.62%	13
10. Bil[ə]Vel	-	-	9	100%	9
11. Alv[ə]Post-alv	-	-	7	100%	7
12. Bil[ə]Gl	-	-	3	100%	3
13. D[ə]Alv	1	33.33%	2	66.67%	3
14. Bil[ə]Labd	-	-	2	100%	2
15. P[ə]Alv	1	50.00%	1	50.00%	2
16. Alv[ə]D	-	-	1	100%	1
17. Labd[ə]Bil	-	-	1	100%	1
18. Labd[ə]Vel	-	-	1	100%	1

Alv = alveolar; Bil = bilabial; D = dental; Gl = glottal; Labd = labiodental; P = palatal; Post-alv = post-alveolar; Vel = velar

$\chi^2 = 105.029$ ; p-value = 0.000; Fisher's Exact Test, p-value = 0.000

The most widespread combinations showed relatively low deletion rates; alveolar + alveolar may be highlighted as leading to more syncopic forms (22.56 per cent). Apart from the already discussed [tr] and [dr] sequences often followed by palatalisation, syncope in *president* (21) was quite common as well, five syncopic [zd] variants were recorded. Yet, schwa was preserved in both instances of the pre-tonic *presidential* (2). In addition to that, the alveolar-flanking [nl] sequence was recorded in *journalist* (2) and *originally* (1).

The strong tendency of syncope in [ʃn] sequences, e.g., *national* (9) and *professional* (1), was well-reflected in the post-alveolar + alveolar contexts, which as a whole proved to be the most susceptible to deletion (66.67 per cent). One more schwa-left-flanking [ʃ] environment, where syncope generally appeared to be preferred by the informants in the BBC set was [ʃl], e.g., *specially* (1) and other derivatives, such as *specialist* (1), both of which were syncopated. The [dʒ] + C combinations, in contrast, may be identified as a more restricted context. While a syncopic [dʒr] was recorded in, for example, *dangerous* (1) and its derivatives, e.g., *endangering* (1), [dʒn], as in *indigenous* (2), did not syncopate.

As regards the labiodental + alveolar combinations, the syncopic forms of [vr] and [fr], which primarily consists of the already described *discovery* (4), *several* (7) as well as *suffering* (1), were dominant. In other sequences, such as [fs], e.g., *officer* (2), [fd], e.g., *confidence* (1), and [vt], e.g., *conservative* (3), syncope was avoided. Nonetheless, right-flanking alveolar environments could not be described as triggering deletion, since the remaining combinations where the schwa was succeeded by



an alveolar consonant resulted in rather low syncope rates. The significance of schwa-flanking place of articulation in the BBC set was confirmed by the statistical analysis.

A nearly analogous situation may be reported in the YouTube video bloggers set in terms of the identified environments. Amongst the 17 recorded combinations, alveolar + alveolar (162), bilabial + velar (102), and bilabial + alveolar (84) hold the most instances, meanwhile bilabial + glottal (5), labiodental + bilabial (3), and bilabial + post-alveolar (2) the least (Table 10).

**Table 10.** The distribution of syncopic and non-syncopic variants based on the flanking place of articulation in the YouTube video bloggers set.

Schwa-flanking place of articulation	Syncopic variants		Non-syncopic variants		Total frequency
	Frequency	Percentage	Frequency	Percentage	
1. Alv[ə]Alv	61	37.65%	101	62.35%	162
2. Bil[ə]Vel	28	27.45%	74	72.55%	102
3. Bil[ə]Alv	46	53.49%	38	45.24%	84
4. Labd[ə]Alv	53	70.67%	22	29.33%	75
5. Alv[ə]Bil	9	13.85%	56	86.15%	65
6. Vel[ə]Alv	15	31.25%	33	68.75%	48
7. Post-alv[ə]Alv	29	69.05%	13	30.95%	42
8. Alv[ə]Labd	3	12.5%	21	87.5%	24
9. Alv[ə]Vel	3	15.79%	16	84.21%	19
10. Bil[ə]Labd	3	16.67%	15	83.33%	18
11. Vel[ə]Bil	1	5.88%	16	94.12%	17
12. Bil[ə]Bil	12	92.31%	1	7.69%	13
13. Alv[ə]Post-alv	-	-	10	100%	10
14. Labd[ə]Vel	3	37.5%	5	62.5%	8
15. Bil[ə]Gl	3	60.00%	2	40%	5
16. Labd[ə]Bil	-	-	3	100%	3
17. Bil[ə]Post-alv	-	-	2	100%	2

Alv = alveolar; Bil = bilabial; D = dental; Gl = glottal; Labd = labiodental; P = palatal; Post-alv = post-alveolar; Vel = velar

$\chi^2 = 130.167$ ; p-value = 0.000; Fisher's Exact Test, p-value = 0.000

As in the BBC set, labiodental + alveolar and post-alveolar + alveolar combinations proved to be syncope prone in the case of the YouTube set as well, both averaging approximately 70 per cent of syncopic forms. One key difference that may be noted is a much higher deletion rate in the bilabial + alveolar environments (53.49 per cent), which is most likely lexically motivated as such items as *camera* (15) and *family* (7) were more frequent in this set. Other contexts included [bl], which was commonly syncopated in the pre-tonic *below* (10), whereas the same did not apply for *believe* (4). Furthermore, the [pr] combination in post-tonic items, for instance in *temporary* (2) and *temperature* (6), exhibited high syncopation rates, while in pre-tonic positions, e.g., *parade* (1), deletion was resisted.

Despite not being very widespread in this set, the bilabial + bilabial combination is noteworthy as it syncopated at a 92.31 per cent rate. This percentage was inflated by one item in particular, namely

probably (13). In all but one of the instances, syncope was succeeded by gemination thus resulting in [ˈprɒb.bli]. The significance of place of articulation in the YouTube video bloggers set was confirmed by statistical analysis as statistically significant differences were found. On the whole, the data remotely aligns with figures found in Dalby’s (1984, p. 22) report on syncope and place of articulation, according to which right-flanking alveolar contexts, particularly [l], would produce the most deletions.

### 3.5. Voicing

All four possible schwa-flanking voicing combinations were found in the sample. The analysis revealed that across the two sets, the voiced + voiced context, seems to be the most likely environment to trigger syncope. The most prevalent flanking voicing context in the BBC set resulted to be voiceless + voiced (162) and voiceless + voiceless the least (55). The distribution of the items is presented in Table 11.

**Table 11.** The distribution of syncopic and non-syncopic variants based on the flanking voicing environment in the BBC news reporters set.

Schwa-flanking voicing	Syncopic variants		Non-syncopic variants		Total frequency
	Frequency	Percentage	Frequency	Percentage	
1. Vs[ə]Vd	42	25.93%	120	74.07%	162
2. Vd[ə]Vd	46	30.67%	104	69.33%	150
3. Vd[ə]Vs	3	2.56%	114	97.44%	117
4. Vs[ə]Vs	3	5.45%	52	94.55%	55

Vd = voiced; Vs = voiceless

$\chi^2 = 44.601$ ;  $p$ -value = 0.000; Fisher’s Exact Test,  $p$ -value = 0.000

Right-flanking voiced consonant combinations proved to be much more likely to syncopate compared to the right-flanking voiceless consonant environments. As concerns the former, voiced + voiced sequences produced the most deletions (30.67 per cent), whereas an approximately 26 per cent syncopation rate was recorded in voiceless + voiced contexts. The combination which resulted to be the most resistant to syncope, the voiced + voiceless sequences, amassed a 2.56 per cent deletion rate.

An analogous situation persists in the YouTuber set as well. As presented in Table 12, out of the 697 items, 274 fall under the voiceless + voiced category, which hosts the absolute majority of the items, while the voiceless + voiceless environments resulted to be the least common, amounting to a total of 58 instances.

**Table 12.** The distribution of syncopic and non-syncopic variants based on the flanking voicing environment in the YouTube video bloggers set.

Schwa-flanking voicing	Syncopic variants		Non-syncopic variants		Total frequency
	Frequency	Percentage	Frequency	Percentage	
1. Vs[ə]Vd	124	45.26%	150	54.74%	274
2. Vd[ə]Vd	91	46.67%	104	53.33%	195
3. Vd[ə]Vs	39	22.94%	131	77.06%	170

4. Vs[ə]Vs	15	25.86%	43	74.14%	58
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Vd = voiced; Vs = voiceless

$\chi^2 = 32.035$ ; p-value = 0.000; Fisher's Exact Test, p-value = 0.000

In comparison with the BBC news reporters set, the same syncopation patterns persist in the case of YouTubers, though at inflated rates. The voiced + voiced environment resulted to be the most subject to syncope at a 46.67 per cent deletions immediately followed by voiceless + voiced contexts, which generated 45.26 per cent syncopic variants. The voiced + voiceless, yet again, was the combination that produced the least instances of syncope (22.94 per cent). This is not on par with findings reported in Dalby's (1984, p. 23) study, where right-flanking voiceless environments generated the most syncopic variants. Regardless, statistically significant differences were found in terms of schwa-flanking voicing conditions and syncope.

### 3.6. Discussion

The last five decades of research on syncope in English has led to different interpretations attempting to explain the mechanism behind it. According to the generativist theoretical frameworks (Zwicky, 1972a, Hooper, 1974), phonotactics of the language is at the epicentre. On such grounds, the sonority sequencing principle and syllable parsing constraints are perceived as the key elements, which govern the behaviour of syncope. The initial theories were then accompanied by corpus-based studies highlighting the role of suprasegmental features (Dalby, 1984, Patterson *et al.*, 2001, 2003, Carlotti *et al.*, 2009), particularly emphasising tonic stress placement and the effects of speech tempo on the weak syllable. Some authors (Davidson, 2006, Geng *et al.*, 2010) took a rather different approach and view deletion *per se* more cautiously. Instead, co-articulation, precisely gestural overlap, is described as the main stimulus that produces an “effect” of a deleted vowel. More recently, syncope is explained via grammatically grounded means, such as Stratal Optimality Theory to account for the constraints in the post-tonic type (Polgárdi, 2015, p. 405), whereas Turcsán (2017, p. 9) proposes that “underlying contrasts in surface productions” are maintained by the speakers via the principle of monotonicity.

Based on the data in this paper, a suggestion may be made to return to the earlier accounts on syncope in order to re-consider one facet in particular, which has been proposed since as early as Zwicky (1972a, p. 283), namely “pronounceability”. Perhaps its somewhat simplistic nature on the surface has led to a peripheral role in the descriptions of syncope, however, lack of consistency in terms of the traditionally emphasised arguments points to a theoretical loophole. It has been shown in this study that while some schwa-flanking articulatory conditions were strongly favoured and others regularly resisted, the well-formedness of a sequence did not prove to be a statistically significant variable. In this light, the development of parameters designed to measure said “pronounceability”, *i.e.*, what makes a sequence feasible from an articulatory perspective, may be proposed as a strong future research implication.

## CONCLUSIONS

1. Rather limited acknowledgement of syncope in academia indicates that the development of its conceptual framework remains at a work in progress stage. Amongst the factors which may be highlighted as having contributed to such stagnation, attempts to prescribe a one-fits-all definition seem to be at the very epicentre. As syncope is closely intertwined with phonotactics, irrespective of whether it is governed by it or not, the interpretation of the term is not quite generalizable. What concerns the English language in particular, each dialect contains unique phonological features, which might affect the behaviour of syncope and such assumptions are reflected in varying degrees of syncopation attested in different dialects (*cf.* Dalby, 1984, Głowacka, 2001, Turcsán, 2017). The efforts to conceptualise it should be wary of holistic descriptions and instead recognise weak syllable deletion as more of a dialect-specific feature. Having established that, perceiving syncope as a more aerial notion would facilitate identifying concrete patterns that do surface cross-dialectally.
2. Within the scope of this study, syncope was explored in terms of three broad contexts, namely suprasegmental, phonotactic, and articulatory. The former tends to accord with the general tendencies reported in both theoretical and empirical studies, where stress is emphasised as a significant variable with regard to syncope probability. The post-tonic type resulted to be more productive in both BBC news reporters and YouTube video bloggers sets, accumulating 41.01 and 66.56 per cent syncopical variants respectively. Phonotactic well-formedness, on the other hand, did not prove to be a likely variable governing syncope as no statistically significant differences were found. Both licit and illicit potential clusters demonstrated similar syncopation rates across the two analysed sets. Finally, the articulatory characteristics of the schwa-flanking environment showed a strong connection with syncope. The sample data suggests that environments where the schwa is succeeded by an approximant are more probable to result in syllable deletion. At the same time, plosive + plosive and plosive + fricative contexts tend to resist syncope the most. In terms of place of articulation, schwa succeeded by an alveolar consonant resulted to be the most syncope prone combination, meanwhile the remaining contexts syncopated to a much lesser extent. The surrounding voicing environment appears to be a significant variable as well. Within the boundaries of this sample, the schwa was most susceptible to deletion when flanked by voiced consonants; voiced + voiceless combinations produced the least syncopical variants.
3. Based on the sample data, the results tend to support the idea of syncope showing some degree of dependency on the social circumstances. Syncopation was nearly twice less prevalent in the BBC news readers set, compared to the deletion rates amongst the video bloggers. This disparity may be traced back to the rather conservative pronunciation traditions practiced by the BBC, which have become embedded into the “brand”, despite loosening the restrictions on accent diversity. A stronger

tendency to resist syncope in the BBC set could be seen as a reflection of such past customs. From a more functional perspective, regardless of the native accent of the individual, news readers do tend to undergo training focusing specifically on diction, which presumably leads to a stronger tendency, be it conscious or not, to preserve the weak syllable. The same concerns are not quite relevant in more colloquial accents and especially under less formal conditions, such as video blogging. To an extent, syncope may be identified as a socially conditioned phenomenon and more probable in less restricted environments.

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## SUMMARY

A rather marginal role of synchronic syncope in the descriptions of English phonology is currently reflected in over five decades of scarce attempts to develop a theoretical framework as well as contradictory empirical data (*cf.* Dalby, 1984, Głowacka, 2001, Patterson, *et al.*, 2003, Davidson, 2006). The 1970s and 1980s generativist-inspired analyses (Zwicky, 1972a, Hooper, 1978, Dalby, 1984) seem to have contributed the most to the conceptualisation of syncope, most notably, characterising weak vowel deletion on the grounds of a stress based typology. Later approaches (Carlotti *et al.*, 2009, Bérces, 2011), questioning the centrality of tonic stress, provide a phonotactics oriented explanation thus considering syncope as embedded into the system of the language. More recently, formalist representations of post-tonic syncope (Szigetvári, 2007, Harris, 2011, Polgárdi, 2015) delineate concrete constraints it conforms to, conceptualising weak vowel deletion in parallel to syllabic consonant formation. Nevertheless, there is no consensus on any rigorous theoretical conventions making syncope a challenging concept to approach empirically. It remains unclear under what conditions weak vowel deletion tends to operate as well as the variables that govern it.

Aiming to provide a more aerial outline of syncope, focusing on non-rhotic dialects widespread in the Southern parts of England, the following objectives were set: to evaluate the role of cross-dialectal variation with regard to weak vowel deletion, thereby contributing to a more comprehensive theoretical framework of syncope in English; to determine which variables, namely stress, phonotactic acceptability, and schwa-flanking articulatory context tend to show more resilience to syncope within the boundaries of the analysed speech samples; to analyse the sociophonetic implications which may be drawn from the syncope patterns identified in the sample. A similar methodological framework applied in this paper is found in the works of Dalby (1984) and Głowacka (2001), which consisted of collecting, classifying, and codifying the data elicited from the BBC World Service five-minute news bulletins and YouTube video blogs. The sample resulted in 1181 items, assessment of which was supplemented with spectrographic analysis carried out by Praat 6.2.10 (Boersma & Weenink, 2022) and then processed statistically via SPSS 26 (2019). The identified data revealed a stronger syncope tendency in regionally marked accents as opposed to more standard pronunciation. The statistical analysis seems to accord with the representatives of the generativist approach to syncope, since the tonic stress placement and schwa-flanking articulatory context were assumed to be the most likely variables influencing schwa deletion. Meanwhile, phonotactic acceptability was not a statistically significant factor and syncope was as likely in licit sequences as in illicit. Such data is more on par with co-articulation oriented interpretations, precisely, “pronounceability” (Zwicky, 1972a) and how specific sequences of articulatory gestures generate environments more susceptible to deletion.

## SANTRAUKA

Antraplaniš sinchroninės sinkopės vaidmuo anglų kalbos fonologijos aprašymuose atsispindi daugiau nei penkis dešimtmečius truncančiuose bandymuose pritaikyti teorinius pagrindus bei nevienareikšmiuose tyrimų rezultatuose (cf. Dalby, 1984, Głowacka, 2001, Patterson, *et al.*, 2003, Davidson, 2006). Septinto ir aštunto dešimtmečių generatyvizmo įkvėpti darbai (Zwicky, 1972a, Hooper, 1978, Dalby, 1984) paliko bene ryškiausią pėdsaką sinkopės konceptualizacijoje. Verta pabrėžti kirčiuotu skiemeniu grįstą tipologiją. Vėliau sekę tyrimai (Carlotti *et al.*, 2009, Bérces, 2011), silpnojo skiemens sutrumpėjimą aiškina remiantis anglų kalbos fonotaktika ir laiko sinkopę reiškiniu, priklausomu nuo kalbos sistemos. Savo ruožtu formalizmo atstovai (Szigetvári, 2007, Harris, 2011, Polgárdi, 2015) išskiria konkrečius apribojimus, taikomus atvejais kuomet silpnasis balsis užima poziciją po kirčiuoto skiemenio ir analizuoja sinkopę kaip silabinių priebalsių susidarymo pasekmę. Nė viena teorija nėra įsitvirtinusi kaip pagrindinė, taip apsunkinant sinkopės tyrimų galimybes. Išlieka neaišku, koku principu veikia sinkopė ir kokie veiksniai turi tam įtakos.

Siekiant pateikti konkrečiai dialektų grupei paplitusiai pietų Anglijoje būdingus silpnojo skiemens praleidimo ypatumus, buvo iškelti šie uždaviniai: įvertinti dialektų variantiškumo vaidmenį, susijusį su silpnojo balsio praleidimu, siekiant prisidėti prie visapusiškesnės sinkopės konceptualizacijos anglų kalboje; įvertinti, kurie veiksniai, t.y., kirčio vieta, fonotaktikos dėsnių laikymasis bei silpnąjį balsį supantis artikuliacinis kontekstas turi įtakos sinkopei; remiantis šio darbo duomenimis, nustatyti potencialias sociofonetines sinkopės implikacijas. Darbo metodologija taikyta remiantis Dalby (1984) bei Głowacka (2001) darbais, kuriuose pirmas žingsnis yra duomenų rinkimas, klasifikacija ir kodifikacija. Pastarieji surinkti iš *BBC World Service five-minute news* žinių reportažų bei vaizdo tinklaraščių patalptintų *YouTube* platformoje. Viso buvo rasti 1181 atvejai, kurie analizuoti pasitelkiant spektrografinę informaciją naudojantis Praat 6.2.10 (Boersma ir Weenink, 2022) programa ir vėliau apdoroti statistiškai su SPSS 26 (2019). Nustatyta, jog sinkopė daug labiau paplitusi tarmiškoje nei norminėje tartyje. Savo ruožtu statistinės analizės rezultatai sutampa su generatyvizmo atstovų darbais. Remiantis duomenimis, kirčiuoto skiemens pozicija bei silpnąjį balsį supantis artikuliacinis kontekstas turi įtakos balsio praleidimui. Tuo tarpu fonotaktikos dėsnių laikymasis tokio pačio efekto neturėjo ir sinkopė galima tiek leistinose, tiek neleistinose struktūrose. Tyrimo duomenimis, kaip vieną iš įmanomų paaiškinimų galima išskirti „ištariamumą“ (Zwicky, 1972a) ir tam tikrų struktūrų polinkį į sinkopę dėl jų artikuliacinių savybių.

**Raktiniai žodžiai:** sinkopė, nekirčiuoto balsio praleidimas, fonotaktika, tarmės, norminė tartis, artikuliacija.