

Aleksandar Pejčić*

Faculty of Philosophy, English Department
University of Niš, Serbia

PROSODIC MARKING OF CONJUNCTIVE ADVERBS AS DISCOURSE MARKERS IN SERBIAN EFL STUDENTS' ORAL ARGUMENTATION

Abstract

This study analyses the use of conjunctive adverbs as discourse markers (DMs) in oral argumentative presentations by two groups of Serbian EFL students with the intention of comparing the distribution of DMs and the strength of their prosodic boundaries. The study included 5 first-year and 5 third-year students at the Faculty of Philosophy in Niš, who recorded their oral argumentative presentations on a topic selected by the researcher. The analysis included the distribution of DMs by functional class, whereas the acoustic analysis looked into the use of boundary tones, nuclear tones, pitch reset and pauses. The results revealed that the third-year students did possess a broader range of appropriate vocabulary, especially adverbial and used lengthier pauses, but did not differ much in their choice of tone or key from their first-year peers.

Key words: discourse markers, conjunctive adverbs, spoken discourse, argumentation, EFL

* aleksandar.pejcic@filfak.ni.ac.rs

1. Introduction

Much like in written argumentative essays, spoken argumentative discourse in the academic setting has the main purpose of influencing the audience to accept a particular idea and of arguing in favor or against a specific proposition. The persuasiveness of the text relies on the arguments and support presented within, but the effectiveness of the message also depends on other factors, including the cohesion and coherence of the text. Cohesion refers to creating relations in discourse above grammatical structures (Halliday 1994, cited in Martin, 2001: 35) by offering explicit clues to unlocking the relationship between ideas in a text. Coherence, on the other hand, “involves the relationship that occurs from sentence to sentence within the paragraph” (Gallo & Rink 1985: 50) and is achieved by different means. According to Smalley et al. (2000), these means include the repetition of key words, coordinating conjunctions and correlative conjunctions, subordinate clauses and transitional words and phrases, the last of which plays an important role in both spoken and written discourse.

As powerful clues “about what commitment the speaker makes regarding the relationship between the current utterance and the prior discourse” (Fraser 1988: 22), DMs have been considered important elements in the construction of the function and meaning of a sentence (Halliday & Hasan, 1976) and as such have found their place in academic writing and oral argumentation as well. Even though oral argumentation carries more additional cues about the author’s intentions than written discourse, which causes written discourse to rely more on cohesive devices, discourse markers in oral argumentation have been shown to occur more frequently, while performing the same functions (Soria and Ferrari, 1998) and are one of the five categories of expressions attributed by Carter and McCarthy (2006) to oral discourse but much less so to written English.

As academic speaking involves a set of skills that include the ability to defend and criticize a position in a discussion, to evaluate ideas in spoken discourse, to create a well-supported and researched argument and various academic presentation skills, it seems that discourse markers should play an important role in one’s development of that skill set. Since academic speaking tasks start taking place at the undergraduate level already, a study of the use of discourse markers in academic presentations of undergraduate students may reveal how well the use of these expressions is developed at an early stage.

However, although the frequency and type of DMs used by the undergraduates in this study will be the initial focus of the paper, their prosodic marking will be the main subject, as various authors (Schourup 1999; Schiffrin 1987) have attributed discourse markers with prosodic features as one of their defining characteristics. This matter, however, is still under-researched in the case of Serbian ESL learners and, as speaking activities are an essential component of most language-oriented university courses, it remains an intriguing subject for research, with the main question in this case being whether the prosodic marking of DMs becomes more consistent in more experienced ESL speakers.

2. Previous Research

Even though their exact nomenclature in literature has varied from what Shiffrin (1987) and Fraser (1990) have called discourse markers, to discourse particles (Schourup 1985), discourse connectives (Blakemore, 1992), sentence connectives (Halliday and Hasan, 1976), pragmatic connectives (van Dijk, 1979) or discourse operators (Redeker, 1991) and various others, discourse markers have been an essential tool in achieving cohesion in different genres belonging to academic discourse.

As hard as it has been for researchers to adopt a common name for this functional group of “sequentially dependent elements which bracket units of talk” (Schiffrin 1987: 31), especially due to the array of functions they perform, the attempts to define and characterize discourse markers have varied just as much. For example, for Schourup (1999) discourse markers can be identified on the basis of their defining characteristics, including connectivity, optionality and non-truth conditionality, while for Schiffrin (1987: 328) they should be “syntactically detachable from a sentence”, be commonly used in a sentence-initial position, have a range of prosodic contours and be able to operate at both local and global levels of discourse. Similar constraints are also given by Fuller (2003), who claims that for the connective to be considered a discourse marker, the semantic relationship between the elements connected by the marker must remain the same even without it, and that the omission of the marker should not affect the grammaticality of the utterance.

However, the definition of a discourse marker has been dependent on the approach used, and they have varied between a coherence-based

approach by Schiffrin (1987), Relevance-based framework (Blakemore 2002), and the grammatical-pragmatical approach by Fraser (1996). Schiffrin's (1987) approach distinguishes between five "planes of talk", i.e. dimensions of the interaction that are occupied by DMs. For her, discourse markers can belong to the ideational structure (linking propositions), the action structure (linking speech acts), the exchange structure (taking or yielding turns), the information state (organizing knowledge) or the participation framework (establishing speaker relations). In other approaches to discourse markers, some kind of dichotomy can be seen in the type of meaning signaled by the discourse markers, which can be either propositional content on the one hand, or pragmatic information on the other; or a textual function on the one hand and interactive on the other (Wichmann 2014). A dichotomy also exists in Fraser's (1999: 931) categorization of DMs, whereby they can either "relate the explicit interpretation conveyed by S2 with some aspect associated with the segment, S1" or "relate the topic of S2 to that of S1".

Fraser's (1999) first category would include contrastive (*however, although*), elaborative (*in addition, and, besides*), inferential (*as a result, because of*) and reason DMs (*after all, because, since*), whereas the second would include topic relating markers (*by the way, with regards to*). Later, Martínez (2004) would expand the subgroup of elaborative markers by adding conclusive markers (*in conclusion, to sum up*) and exemplifiers (*for example, for instance*). In Fraser (2004), DMs were classified into contrastive, elaborative, implicative and temporal, whereas in Fraser (2009) the DMs were reclassified into: contrastive, elaborative and inferential discourse markers.

These classifications provided researchers with a framework to investigate the use of DMs with various aims in mind. The use of discourse markers in EFL argumentative academic writing has shown in different research not only that elaborative DMs (e.g., *and, in addition and furthermore*) are the most frequently used DMs (Rahimi 2011) but also that elaborative DMs and inferential DMs (e.g., *because and thus*) were good markers of successful writing (Jalilifar 2008), although other studies, like the one by Rahimi and Ghanbari (2011), did not arrive at conclusive evidence of such a correlation. Furthermore, when L2 writing was compared to L1 writing in studies like Dumlao & Wilang (2019), elaborative markers proved to be overused by both groups, while differences included the positioning of DMs, and the variety of the DMs used, as L2 writers used them more sentence-initially.

However, as a different mode of communication from written language, spoken language can be expected to contain some lexical, grammatical and pragmatic properties which do not correspond to the patterns expected from written discourse. For example, more planning can be expected from written discourse and more interactivity and emotivity from speech (Crible & Cuenca 2017), while certain DMs, such as adverbials, are more relevant to written discourse, while others (e.g. *okay*, *well*, and *now*) are more pertinent to speech (Biber 2006). One of the important differences, however, is also the use of intonational information and other prosodic features of speech in the communication of discourse structure.

2.1. Prosodic features of DMs

The relationship between prosody and discourse has been well-acknowledged in literature. Hirschberg & Pierrehumbert (1986: 136) noted that different studies had found types of information status (such as given/new, topic/comment, focus/presupposition) to be intonationally ‘marked’. They also noted the role of intonation in signaling topic shift, digression, and interruption, as well as turn-taking in conversations and other potential uses of intonation in discourse. Clearly, intonation plays different functions in speech and Couper-Kuhlen (1986) summarized them into six different types: (1) informational, (2) grammatical, (3) illocutionary, (4) attitudinal, (5) textual/discourse, and (6) indexical. However, the term *discourse intonation* can most likely be traced to the earlier works by Brazil (1975), Coulthard (1977) and others (Chun 2002: 32). Brazil’s theory, according to Chun (2002), was that intonation had interactional significance in which cohesion and coherence in discourse had priority over grammatical concepts like *interrogative* and *declarative* sentences, and that intonation patterns are constructed using different configurations of traditional prosodic components. These prosodic components are the tonic syllable’s *tone* ((1) falling-rising or *referring* tone r, (2) falling or *proclaiming* tone p, (3) rising or marked version of the fall-rise, r+, (4) rising-falling or marked version of the fall, p+, and (5) low rising) and the tone unit’s *key*, which refers to the pitch level of the head of a new tone unit in relation to the previous one. The interplay of these two situationally-specific prosodic features would signal how well-known the information is to the hearer on the one hand and contrastive and equivalent information, on the other.

The involvement of DMs in discourse has been researched with different goals and hypotheses. Hirschberg & Litman (1987, 1993) examined DMs ('cue phrases') and their prosodic cues with regard to semantic disambiguation, while efforts have also been made to use them for discourse segmentation (Grosz & Hirschberg, 1992; Hirschberg & Nakatani, 1996) or identification of different dialogue moves (Shriberg et al 1998; Taylor et al. 1998). Regarding DMs' prosodic properties, Schiffrin (1987: 328) claimed that discourse markers are marked by tonic stress followed by a pause and phonological reduction, whereas Ferrara (1997) showed that words functioning as DMs can also possess a distinctive fundamental frequency (F0) contour. When found on the left periphery of the sentence, as Traugott (1995: 6) claims, they are often found "in an independent breath unit carrying a special intonation and stress pattern", although their position in an utterance can also be medial or final, which carries different intonation properties as well as different functions. In addition to this, Komar (2007: 49–50) found that, depending on its position, a discourse marker will typically have a different pitch height and nuclear tone, although she claims that its function will play a role as well. She uses Brazil's intonation model (1997) to point out that discourse markers whose function is to mark transitions from one topic to another are most likely to be treated as separate intonation phrases, as well as the markers whose function is to make reference to shared knowledge between the speaker and the listener. The high key (↑) and a falling tone (↘) will typically be found in the openers and closers of topics, as well as in DMs functioning as focusing devices.

As these previous studies have shown that discourse markers can contain a specific intonation pattern, our research will include a qualitative analysis of the intonation contours based on Brazil's (1997) model of discourse intonation, but as Swerts' (1997) analysis of discourse boundaries also contained the analysis of pauses at discourse boundaries, with the author claiming that "there is a moderate, but very significant correlation between the boundary strength values and the pause durations" (Swerts 1997: 518) we will also look into that prosodic feature. However, as Swerts' (1997: 520) research also found that "stronger breaks in the flow of information are more likely to co-occur with filled pauses than weaker ones" special consideration will be given to this type of pauses as well. Secondly, F0 reset seems to be another important contributor to boundary strength (Swerts 1997; Hansson 1999), with the boundary tone

as the third (Swerts 1997), so these three factors will form the basis of our quantitative prosodic analysis.

3. Methodology

To examine how DMs are prosodically marked in oral academic discourse at the undergraduate level, 10 argumentative presentations were recorded with 1st and 3rd year students of *English language and literature*. The topic for discussion was *Should Schools Enforce Strict Dress Codes?* and the presenters were instructed to present three supporting arguments in favour of their thesis, together with an introduction and a conclusion. During the presentations, the speakers were not corrected or interrupted if the expected format was not used, as long as the presentation was kept on topic.

On average, the recordings produced 302 words per speaker in group A (first-year students), ranging from 193 to 459. On average, group B (third-year students) produced 373 words with the range of 212 to 534 words. The mean duration of the recordings was 172.8s (Group A) and 245s (Group B).

Once the recordings were automatically transcribed and checked by the author, the following parameters were used to identify and annotate DMs within our samples:

- If removed from a sentence, they do not affect, or they insignificantly affect, the content of the message.
- They are most commonly used at the beginning or at the end of an utterance or isolated from the proposition, and are often grouped.
- In ambiguous examples of usage where it is hard to define whether the expression in question functions as a discourse marker or not, the decision is based on the analysis of pragmatic functions of the expression.

Fraser (2009) gives additional conditions for considering a pragmatic marker in a text as its subtype – a discourse marker. According to Fraser (2009), a discourse marker should:

- be a lexical expression (*but, so, and in addition*) and not a syntactic structure or a non-verbal or prosodic feature of language

- occur as a part of the second discourse segment, S2, when preceded by a discourse segment S1
- not contribute to the semantic meaning of the segment but signal a specific semantic relationship which holds between the interpretation of the two illocutionary act segments, S1 and S2.

The additional parameter applied at this point was the selection of conjunctive adverbs for analysis, because of their prototypical sentence-initial position and prosodic detachment from the propositional content of the sentence.

In the analysis of the positions of discourse markers in the students' presentations, given the choice of conjunctive adverbs as the subject of our study, we opted only for the prototypical initial position. After that selection, each DM that satisfied the aforementioned criteria for inclusion was assigned to one of the three functional categories such as: *contrastive*, *elaborative*, and *inferential*, based on Fraser's (2009) taxonomy.

Based on these classifications, we compared DM placement and type between the two groups of students to see if the additional four semesters of argumentative academic writing and elective speaking courses such as a debate course had a significant effect on the production of DMs in speech, their variation and frequency of use. However, our interest also lay in the prosodic marking of DMs.

For that reason, in terms of their prosodic qualities, the adverbial DMs belonging to a single tone unit and found in the initial position were then analyzed in Praat software (Boersma & Weenink, 2021) and the analysis was done in the following two steps, using qualitative and quantitative methods, with comparisons made between groups A and B:

- The qualitative analysis of:
 - intonation contours in DM's tonic syllables based on Brazil's (1997) model of discourse intonation
- The quantitative analysis of:
 - F0 reset between the tone unit preceding the DM and the DM
 - Boundary tones leading to the DMs, classified as either low or non-low (Swerts 1997)
 - length and type of pauses (silent/filled) leading to and following the DMs

4. Results

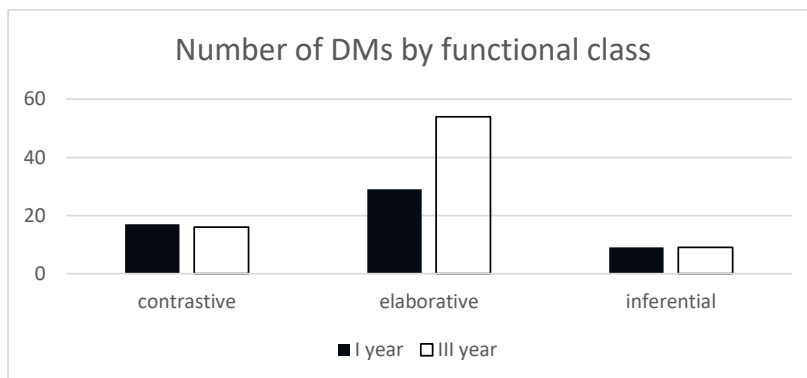


Figure 1. Types of DMs by year of study

Based on Fraser's (2009) classification of discourse markers, the study revealed that out of the three categories, elaborative markers (*and, in addition, for instance* etc.) were the most frequent ones in both groups of presentations, making up 53% of the total number of DMs in the first-year students' presentations and as much as 68.3% of the third-year recordings.

In addition, both groups' second most frequent type were the contrastive markers (*but, however, on the other hand, etc.*), with inferential ones (*so, therefore, because, etc.*) coming third. These numbers are not surprising given the nature of the presentations and the argumentative structure of the speeches, as most of the claims the students made needed to be corroborated by examples, statistics and other types of factual support, for which elaborative markers were the most appropriate ones.

An interesting observation can be made about the use of contrastive markers: even though it could be expected for these DMs to appear mostly in the introductions and conclusions, their use by the first-year presenters was not as ordered. In fact, 10 out of 17 examples were misuses in an argumentative sense: both adverbials and conjunctions were mostly used not to refute the opposing view, but rather to correct, soften or refute one's own previous statement or thesis (Example 1). Compared to the first-year students, third-year presenters used their contrastive markers almost exclusively either to introduce an opposing view or to refute it, which can be considered an appropriate use of such connectors within an argumentative text of this kind, and indicates that the additional courses

in academic writing at least improved the quality of their use, if not their quantity as well (Example 2).

Example 1: *But at the same time, dress codes shouldn't be so strict.*

Example 2: *However, many say that certain dress codes are... prevent students to express themselves and they cannot be the... themselves, but there are many different ways for students to express themselves.*

And lastly, the inferential markers used in our sample are also not unexpectedly the fewest in number. As their function is to produce conclusions based on previous information, their use in an argumentative structure would be mostly limited to concluding sentences or a concluding 'paragraph' or statement, as the prevalent relationship between supporting statements within an argument would be an elaborative one. However, there were some differences in their use as well: whereas the first year students used discourse markers such as *therefore* to signal the upcoming conclusion, while all five third-year students relied on what Fraser (2009) calls *discourse structure markers* (DSMs) like *in conclusion*, *to sum up*, *all in all*, and others for that purpose. While this does not put the former group at a significant disadvantage, as long as some marker was used, it signals that the third-year students did possess a more appropriate vocabulary for that purpose, which again shows the effect of the four semesters of study that separated the two groups.

The variety of DMs used in the presentations was the second point of examination. As Table 1 shows, apart from inferential markers, third-year students showed more reliance on different kinds of markers than their younger colleagues, with fewer conjunctions and more adverbials and prepositional phrases. This observation also stands for the elaborative markers, despite the fact that there were more uses of the conjunction *and*, with three other phrases also being used more than once. The third category did show some slightly surprising numbers, but as we mentioned before, the first-year students used *therefore* to signal the upcoming conclusion whereas the third-year students relied more on DSMs for that purpose. On the other hand, the appearance of *henceforth* in that part of the sample was probably a misuse of the word, as the intended one, based on the context, was *therefore*, so it was still included in the sample albeit not as the intended word.

	<i>contrastive</i>		<i>elaborative</i>		<i>inferential</i>	
	I year	III year	I year	III year	I year	III year
<i>but</i>	8	5				
<i>however</i>	5	4				
<i>(and) on the other hand</i>	1	4				
<i>even though</i>	1	2				
<i>while</i>	1					
<i>but at the same time</i>	1					
<i>although</i>		1				
<i>and</i>			25	35		
<i>also</i>			1	1		
<i>additionally</i>			1	1		
<i>for example</i>			1	7		
<i>for instance</i>			1			
<i>(and) furthermore</i>				4		
<i>moreover</i>				3		
<i>namely</i>				1		
<i>as I mentioned before</i>				1		
<i>so</i>					4	4
<i>(and) therefore</i>					2	
<i>because (of)</i>					2	4
<i>as a result</i>					1	
<i>henceforth</i>						1

Table 1. DMs in the selection

Table 1 also leads us closer to the final step of our examination before the acoustic analysis, as the focus of it is the use of conjunctive adverbs as discourse markers. This particular grammatical category was identified in our corpus and marked in Table 1 in bold, and these adverbials, found typically in sentence-initial and medial positions, will be analysed in prosodic terms by looking at their right boundary, the duration of the following pause, but also the pitch key of the phrase itself, as a heightened and reset fundamental frequency (F0) level should indicate the change in topic, which these adverbials (as well as some prepositional phrases and conjunctions) typically help to introduce.

Acoustic analysis

With the discourse markers reduced to the selection that only contained conjunctive adverbs, the acoustic analysis was performed on the selection of 9 DMs used by the first-year students and the 15 DMs used by the second group, which already shows the more varied selection of DMs employed by the more experienced group. All of the DMs were used in the utterance-initial position.

The first value we examined was the change in the nuclear tone in the tone unit containing the DM, as this property could be used to signal the relationship between topics, ranging from ‘referring tones (fall-rise (f-r))’, ‘proclaiming tones (falling (f))’, to ‘a level tone’, to use Brazil’s (1997) terminology.

		contrastive	elaborative	inferential
I year	s1		f-r	f
	s3	f, f, f,		f
	s5	f-r, f-r	f-r	
III year	s1	f-r	f-r, f-r, f-r	f
	s2	f-r	f-r, f-r, f	
	s3	f		
	s4	f-r	f-r	
	s5		f-r, f, f-r	

Table 2. DM tones

As we can see from Table 2, both groups of students relied (almost) exclusively on fall-rise tones to introduce an elaborative DM. This finding could be considered expected, as the fall-rise, as a referring tone, should indicate an assumption that the meaning of the utterance can be taken for granted by the listener, or when the listener wishes to confirm certain information. Although the material in this study was not conversational and there was no turn-taking, we can see why the elaborative markers were seen as a confirmation of the previous statement by the new one, by the same speaker.

On the other hand, it was surprising that the more experienced group did not use the falling, (proclaiming) tone to a greater extent in the contrastive DMs, as this tone indicates divergence, and it is readily used to introduce information new to the listener, or when the speaker wishes to make an inquiry. This could indicate that the students were not aware of the peculiarities of discourse intonation, or might be using upspeak as a result of cultural influences and personal insecurity at the time of the recording, but it is hard to draw specific conclusions, as the differences in its use were very speaker-dependent, as each student used only one type of tone, and even fewer examples were found for the inferential DMs to make a steady case.

What we could not determine from the tone-related data, we tried to make more evident by also looking at the pitch reset between the tone unit preceding the DMs and the DMs we had in our selection, and the results are shown in Table 3.

	speaker	Percentage of DMs with pitch reset	Mean pitch change
I year	s3	100%	+20,84Hz
	s5	100%	+52,17Hz
	s1	100%	+63,35Hz
III year	s1	100%	+32,82Hz
	s2	75%	+26,94Hz
	s3	100%	+34,5Hz
	s4	100%	+24,3Hz
	s5	0%	/

Table 3. DM pitch reset

The collected data revealed that both groups did reset the pitch fairly regularly within the DM's first stressed syllable in comparison to the previous tone unit. We can also notice that these changes in pitch were notable and that the only other choice of key was the mid key, where much less significant changes in pitch occurred towards lower F₀, and only in the second group, with the mean change being -5,35 Hz for Speaker 3 and -6,7 Hz for Speaker 5.

What contributed to this situation was the boundary tone of the previous tone unit, together with the falling nuclear tones in the same tone unit. After classifying the boundary tones as either *low*, or *non-low* (Swerts 1997) and choosing to present the differences in pitch in semitones (ST), we reached the results that show that neither group showed much consistency in their use, although we noted some differences between the two groups (Table 4).

<i>group</i>	<i>Low (%)</i>	<i>Non-low (%)</i>	<i>Low (Mean ST)</i>	<i>Non-low (Mean ST)</i>
<i>I year</i>	55,5	44,5	2,84	4,8
<i>III year</i>	26,7	73,3	7,29	3,9

Table 4. Boundary tones

However, if we look into the data specific to each speaker, we can notice why these global results do not show anything conclusive, as differences between individual speakers were also an important factor. For example, first year's Speaker 3 used only low tones, and Speaker 5 only non-low, and these two speakers made up 77.8% of the total number of examples in that group and similar but less consistent.

As potential signals of tone unit and topic division, the final prosodic feature examined were the pauses. The first major difference between the two groups was that only 33% of the pauses made pre-DM by the first-year students were filled, whereas 80% of the pauses made by the second group contained some filler sounds. However, upon closer inspection, as Figure 2 shows, there were some differences in the use of these two types of pauses. Although third-year students had noticeably longer pauses overall, the differences in their length also varied considerably, with the longest pause used by any student lasting 4.95s. As this was a filled pause, this type was also measured separately and it revealed that the difference in the average length of pre-DM pauses was mostly due to the length of this type of pauses and its aforementioned frequency in the speeches of third-year students. This is further supported by the numbers pertaining to the silent pauses, where the two groups did not differ significantly.

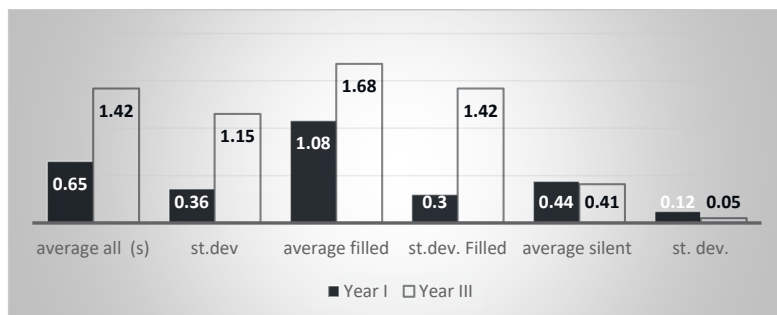


Figure 2. Filled and silent pauses

Although these numbers do show us that the more experienced students marked the transition between S1 and S2 with longer pauses followed by a DM, the exact reason why this difference existed is uncertain, but it is still encouraging to notice that even the less experienced students consistently used pauses in front of sentence-initial DMs. However, as these were also the endings of utterances, the pauses were also grammatical in nature, so the longer pauses made by the third-year students, in spite of containing some fillers, may indicate more need to prepare the following statement, as the students pondered the following utterance and its connection to the previous statement.

The discourse function of these pauses was made clearer when we took into account the pauses typically following conjunctive adverbs. In 67% of cases with the first-year students, these adverbs were not followed by a pause at all, and the mean length of the pauses that were made was only 0.06s (compared to 0.65s before the adverb). One might argue that the less experienced first-year students were simply not aware of the need for pauses or punctuation after such expressions, but even with the third-year students, who had only 20% of DMs not followed by pauses, the average length of these breaks was only 0.5s (compared to 1.42s before the DM). Somewhat unexpectedly, however, this group was also the only one which had filled pauses in this position as well, and they accounted for as much as 47% of the sample. When they were removed from the sample, the average length of the post-DM pauses dropped to 0.14s, as the average length of the filled ones was 0.92s. Another interesting observation made at this point was that the third-year students were also the only ones who had filled pauses both before and after the DM, which accounted for 33% of their sample.

These findings lead us to the conclusion that the use of pauses before conjunctive adverbs was not simply a grammatical matter but did have to do with their discourse function, with both groups showing a significant increase in their length compared to the other locations and purely grammatical functions. The issue of filled pauses remains an intriguing one, especially as it relates specifically to the third-year students' presentations. As these pauses were used by all of the speakers, and 4 out of 5 even used them in both positions, it leads to the conclusion that their use did not happen accidentally but could be a result of the older group's higher awareness of the significance of DMs in topic and discourse management as the speakers needed time to think about their next move. However, it also implies that the same pauses were not used for additional emphasis, or the filled portions of such breaks would not be as prominent, if present at all.

5. Conclusion

Considering the results of our study, the effect of the four semesters of English studies and different writing and speaking courses that separated the two groups did appear to have certain effects on their prosodic marking of changes in topic introduced by DMs in shape of conjunctive adverbs, although the similarities were far more noticeable than the differences. Both groups used pitch reset and proclaiming tones similarly, whereas the older group was more reliant on pauses and their length as another potential property of DMs. Boundary tones seemed to be very speaker-dependent to make any general claims. Perhaps the biggest difference was not in terms of prosody, but vocabulary, as the more experienced group's DMs had more variety.

The research, however, was only limited to conjunctive adverbs, and a broadened scope of the research that would include the remaining grammatical categories could come to more relevant results, especially with DMs being a functional and not a grammatical category.

However, as a pilot piece of research, with a view to conducting a larger study, the present study did enable us to realize where the intended methods of research could lead to and to adapt the existing ones to offer a better research design going forward, especially in the case of filled pauses and other inconclusive findings caused mainly by the low number

of research participants, while also revealing more about one functional aspect of the grammatical category of conjunctive adverbs.

References

- Biber, D. (2006). *University Language: A Corpus-Based Study of Spoken and Written Registers*. John Benjamins, Philadelphia, PA.
- Blakemore, D. (1992). *Understanding Utterances*. Oxford: Blackwell.
- Blakemore, Diane. (2002). *Relevance and Linguistic Meaning: The Semantics and Pragmatics of Discourse Markers*. Cambridge University Press.
- Boersma, Paul & Weenink, David (2021). Praat: doing phonetics by computer [Computer program]. Version 6.1.51, retrieved 15 August 2021 from <http://www.praat.org/>
- Brazil, D. (1975). *Discourse intonation I*. Birmingham: English Language Research Monographs.
- Brazil, D. (1997). *The communicative value of intonation in English*. Cambridge: Cambridge University Press.
- Carter, R., & McCarthy, M. (2006). *Cambridge grammar of English: A comprehensive guide: Spoken and written English grammar and usage*. Cambridge, UK: CUP
- Chun, D. M. (2002). *Discourse intonation in L2: From theory and research to practice*. Amsterdam: John Benjamins.
- Coulthard, M. (1977). *An introduction to discourse analysis* (2nd ed., 1985). London: Longman.
- Couper-Kuhlen, E. (1986). *An introduction to English prosody*. Tübingen: Niemeyer.
- Crible, L. & M. J. Cuenca (2017). Discourse Markers in Speech: Characteristics and Challenges for Corpus Annotation. *Dialogue and Discourse*, 8 (2), 149–166.
- Dumlao, R. P., & Wilang, J. D. (2019). Variations in the use of discourse markers by L1 and L2 English users. *Indonesian Journal of Applied Linguistics*, 9 (1), 202-209. <https://doi.org/10.17509/ijal.v9i1.15206>
- Ferrara, K. W. (1997). Form and function of the discourse marker anyway: implications for discourse analysis. *Linguistics*, 35, 343–378.
- Fraser, B. (1988). Types of English discourse markers. *Acta Linguistica Hungarica*, 38 (1–4), 19–33.

- Fraser, B. (1990). An approach to discourse markers. *Journal of Pragmatics*, 14, 383–395.
- Fraser, B. (1996). Pragmatic markers. *Pragmatics*, 6: 167–190.
- Fraser, B. (1999). What are discourse markers? *Journal of Pragmatics*, 31, 931–953.
- Fraser, B. (2004). An account of discourse markers. In: Pilar Conejos Garcés et al. (eds.), *Current trends in intercultural, cognitive and social pragmatics*, Sevilla: Universidad de Sevilla, 13–34.
- Fraser, B. (2009). An account of discourse markers. *International Review of Pragmatics*, 1 (2), 293–320. doi: 10.1163/187730909X12538045489818
- Fuller, J. M. (2003). The influence of speaker roles on discourse marker use. *Journal of Pragmatics*, 35 (1), 23–45.
- Gallo, Joseph D. and Henry W. Rink. (1985). *Shaping College Writing: Paragraph and Essay*. San Diego: Harcourt Brace Jovanovich.
- Grosz, B. and J. Hirschberg (1992). *Some intonational characteristics of discourse structure*. In: ICSLP 1992 (2nd International Conference on Spoken Language Processing). Banff, Canada, pp. 429–432.
- Halliday, M. A. K. (1994). *An Introduction to Functional Grammar*. London: Edward Arnold.
- Halliday, M. A. K. and R. Hasan (1976). *Cohesion in English*. London: Longman.
- Hansson, P (1999), Prosodic and Lexical Correlates of Swedish Discourse Markers in Spontaneous Dialogue. Proc. 14th Int. Cong. of Phon. Sci., 1–7 Aug. 1999, San Francisco.
- Hirschberg, J. and D. Litman (1987). Now let's talk about now: identifying cue phrases intonationally. In *Proceedings of the 25th Annual Meeting*, Association for Computational Linguistics, Stanford.
- Hirschberg, J. and D. Litman (1993). Empirical Studies on the Disambiguation of Cue Phrases. *Computational Linguistics*, 19, 501–530.
- Hirschberg, J. & C. H. Nakatani (1996). *A prosodic analysis of discourse segments indirection-giving monologues*. In: ACL 1995 (34th Annual Meeting of the Association for Computational Linguistics). Santa Cruz, CA, 286–293.
- Hirschberg, J. and J. Pierrehumbert (1986). The intonational structuring of discourse. In *Proceedings, 24th Annual Meeting of the Association for Computational Linguistics*. New York, 136–144.

- Jalilifar, A. (2008). Discourse Markers in Composition Writings: The Case of Iranian Learners of English as a Foreign Language. *English Language Teaching*, 1 (2), 114–122.
- Komar, S. (2007). The Interface between Intonation and Function of Discourse Markers in English. *ELOPE English Language Overseas Perspectives and Enquiries*, 4 (1–2), 43–55
- Martin, J. R. (2001). Cohesion and texture. In: D. Schiffrin et al. (eds.), *The Handbook of Discourse Analysis*, Massachusetts: Blackwell Publishers, 35–53.
- Martínez, A.C. (2004). Discourse Markers in the Expository Writing of Spanish University Students. *Iberica*, 8, 63–80.
- Paunović, T. and M. Savić (2009). Discourse Intonation – Making it Work. In: S. Komar, and U. Mozetić. (eds.), *ELOPE, V, 1–2, Issue As You Write It: Issues in Literature, Language, and Translation in the Context of Europe in the 21st Century*, Ljubljana: Slovene Association for the Study of English and Department of English, Faculty of Arts, University of Ljubljana, 57–75.
- Rahimi, A. & Nahid Ghanbari (2011). The Impact of Teachers' Scaffolding on Iranian High School Students' Reading Comprehension. *Procedia – Social and Behavioral Sciences*, 28, 1072–1075.
- Rahimi, M. (2011). Discourse markers in argumentative and expository writing of Iranian EFL learners. *World Journal of English Language*, 1 (2), 68–78.
- Redeker, G. 1991. Linguistic markers of discourse structure. *Linguistics*, 29, 1139–1172.
- Schiffrin, D. (1987). *Discourse Markers* (Studies in Interactional Sociolinguistics). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511611841
- Schourup, L. (1985). *Common discourse particles in English conversation: "like," "well," "y'know."* New York: Garland.
- Schourup, L. (1999). Discourse Markers. *Lingua*, 107, 227–265.
- Shriberg, E., R. Bates, A. Stolcke, P. Taylor, D. Jurafsky, K. Ries, N. Coccaro, R. Martin, M. Meteer, and C. van Ess-Dykema (1998). Can Prosody Aid the Automatic Classification of Dialogue Acts in Conversational Speech? *Language and Speech*, 41 (3–4), 443–492.
- Smalley, Regina L., Mary K. Ruetten & Joann Rishel Kozyrev (2000). *Refining composition skills: rhetoric and grammar (5th ed.)*. Boston, MA: Heinle & Heinle Publishers.

- Soria, C. and G. Ferrari (1998). Lexical marking of discourse relations – some experimental findings. In Proceedings of the ACL-98 Workshop on Discourse Relations and Discourse Markers.
- Swerts M. (1997). Prosodic features at discourse boundaries of different strength. *The Journal of the Acoustical Society of America*, 101 (1), 514–521. <https://doi.org/10.1121/1.418114>
- Taylor, P., S. King, S. Isard and H. Wright (1998). Intonation and Dialog Context as Constraints for Speech Recognition. *Language and Speech*, 41 (3–4), 493–512.
- Traugott, E. C. (1995). Subjectification in grammaticalisation. In: Susan Wright and Dieter Stein (eds.), *Subjectivity and Subjectivisation*, Cambridge, UK: Cambridge University Press, 31–54.
- Van Dijk, T.A. (1979). Pragmatic Connectives. *Journal of Pragmatics*, 3 (5), 447–456.

Received: 29 April 2022

Accepted for publication: 12 October 2022