



Cohesion in L2 German Speech Production

Colleen A. Neary-Sundquist, West Lafayette, IN

ISSN 1470 – 9570

Cohesion in L2 German Speech Production

Colleen A. Neary-Sundquist, West Lafayette, IN

This study examines the use of modal particles and conjunctions by learners of German in order to understand how the expression of cohesion develops in their speech. Although both modal particles and conjunctions can be used to link units of discourse, their acquisition and use by non-native speakers may progress differently due to the greater difficulty of learning modal particles. The data examined in the study come from oral proficiency interviews from learners at the intermediate, advanced, and superior levels. Learners at lower proficiency levels use more conjunctions than modal particles to create cohesive ties, while learners at the Superior level use more modal particles than conjunctions. The results suggest that there may be a complementary relationship between these two types of cohesive devices.

1. Introduction

This study examines the use of modal particles and conjunctions by learners of German as a foreign language at varying proficiency levels. Together, modal particles (more commonly called discourse or pragmatic markers in English) and conjunctions can be used by speakers to create coherent discourse (Halliday & Hasan 1976).¹ These two types of cohesive devices enable clauses to be linked together so that longer units of speech can be created and managed. While both conjunctions and modal particles can link utterances, modal particles can also perform additional discourse functions. Modal particles facilitate successful communication by signaling the relationship between one utterance and another or by indicating the attitude of the speaker toward the utterance, giving the listener clues to its interpretation.

The use of modal particles can therefore be essential for successful communication in a second language. Svartvik (1980: 171) considered discourse markers to be one key to attaining native-like proficiency in a second language:

If a foreign language learner says *five sheeps* or *he goed*, he can be corrected by practically every native speaker. If, on the other hand, he omits a *well*, the likely

¹ The term "modal particles" (*Modalpartikeln*) will be used throughout this paper to refer to the subclass of German particles that will be analyzed, including expressions like *ja*, *wohl*, *schon*, for instance, as outlined in Helbig's (1994) overview of German particles. For more discussion on the terminology used in the paper, see Section 2.2. For an overview of the terminology as it pertains to similar expressions in other languages, including English, see Romero-Trillo (2012) and Fischer (2012).

reaction will be that he is dogmatic, impolite, boring, awkward to talk to etc., but a native speaker cannot pinpoint an ‘error’.

Research has borne out Svartvik’s contention that the lack of cohesive devices in discourse is tantamount to other more obvious errors. Crossley et al. (2010) found that nonnative-like use or non-use of lexical cohesive devices resulted in negotiation for meaning in conversations in the same way that other errors or misunderstandings would.

The fact that learners may not acquire or even perceive the function of many cohesive devices highlights the need for further study of their acquisition or non-acquisition by non-native speakers. The use of cohesive devices such as modal particles is especially important for the acquisition of German (Belz & Vyatkina 2005; Möllering 2001). When more is known about the usage of cohesive devices in L2 German, it will be possible to develop pedagogical interventions to create the conditions conducive to their acquisition.

The aim of this paper is to examine the usage of both conjunctions and modal particles in order to offer insight into their development in the speech of learners of German. The study attempts to fill several gaps in the literature, namely the extent to which learners of L2 German at different proficiency levels use modal particles, and how this compares to their usage of conjunctions.

2. Background

2.1 Cohesion and its importance for second language discourse

According to Halliday & Hasan (1976) and Halliday & Matthiessen (2004) discourse markers and conjunctions facilitate the construction of cohesive discourse. Halliday & Hasan argue that the fundamental property of a text (which can be either written or spoken language) is cohesion, a semantic property which “refers to relations of meaning that exist within the text, and that define it as a text” (Halliday & Hassan 1976: 4). One means by which the cohesion of a text is realized is through the use of conjunctive items, a category which includes both conjunctions and discourse markers (e.g. *now, well, I mean*).

Another view of the importance of cohesive devices such as discourse markers and conjunctions that is pertinent to second language learning can be found in the American Council on the Teaching of Foreign Languages (ACTFL) guidelines for conducting

Oral Proficiency Interviews (OPI) (Breiner-Sanders & Swender 1999). The guidelines for the ACTFL OPI incorporate the creation of discourse into their rating criteria under the rubric of discourse competence. In order to move from discourse at the word level (Novice) to the sentence level (Intermediate) to the multi-paragraph level of discourse (Superior), learners must also be able to control a range of expressions and devices for linking their utterances into a coherent discourse. Such expressions can be broadly called cohesive devices, which the ACTFL OPI training manual (Breiner-Sanders & Swender 1999: 100) defines as “words and phrases that link ideas and move forward the action in some form of logical narrative order...” Both Halliday & Hasan (1976: 10) and the ACTFL guidelines consider the ability to use cohesive devices to be a necessary building block for creating discourse that moves beyond the level of disconnected individual sentences.

2.2 Cohesive Devices

2.2.1 Modal Particles

What in German are generally called *Modalpartikeln* (modal particles) are also known by many other terms, most often discourse markers or discourse particles in English. The classification and function of discourse markers has received increased attention and stimulated debate since Schiffrin’s (1987) landmark study of the use of English discourse markers by native speakers. Since then, the terminology used for these types of expressions has multiplied and they have been investigated in a number of different theoretical frameworks (Schourup 1999).

As Belz & Vyatkina (2005) point out, German modal particles can be considered equivalent to what Hasselgreen (2005: 162) has called ‘smallwords’ defined as “small words and phrases which keep our speech going but do not contribute essentially to the message itself.” Abraham (1991) notes the prevalence of modal particles in all of the Germanic languages. Some generally agreed upon characteristics of German modal particles are that they are non-declinable, not sentence-initial, are not stressed, and have a scope at the sentence level or beyond (Cheon-Kostrzewa & Kostrzewa 1987; Helbig 1990; Vyatkina 2007).

Previous studies on modal particle use by learners of German have generally not examined the use of modal particles by learners at different proficiency levels, in

different contexts, or in comparison with native speaker usage. These topics have been investigated by studies of English language learners. A number of these studies have focused on the acquisition of only a small subset of English discourse markers. Hellermann & Vergun (2007), Müller (2005), and Fuller (2003) looked at three, four, and five discourse markers, respectively. Among recent studies, Fung & Carter (2003) and Hasselgreen (2005) looked at a larger number of discourse markers, and found that more proficient non-native speakers used more discourse markers than less proficient ones, and that non-native speakers generally underused discourse markers compared to native speakers.

2.2.2 The learning problem of modal particles

Modal particles present a unique learning problem for non-native speakers in a foreign-language context for several reasons. The first issue is that they are generally not given much attention in textbooks widely used in the United States. They are either not mentioned or are presented in an unsystematic way scattered throughout the text (Belz & Vyatkina 2005).

Secondly, modal particles might be more difficult to acquire due to the fact that they generally have at least one homonym (Möllering 2001). For example, the modal particles *ja*, *doch*, and *aber* all have modal particle and non-modal particle meanings. The polysemy of modal particles means that learners have to realize that the words that they are hearing do not have the meanings that they have previously been taught.

The multiple meanings of modal particles are especially problematic in that modal particles could be ignored by the learner without causing the meaning of the sentence to be misunderstood. That is, modal particles generally contribute to the interpretation of the sentence but not to its literal meaning or truth-conditional value (Fuller 2003; Schourup 1999). This is a commonly recognized feature of discourse markers, namely, that they can be removed from an utterance without changing the fact that it is true or false. Of course, as pointed out above, the fact that the truth condition of the sentence is not affected does not diminish the importance of an understanding of modal particles for the correct interpretation of the utterance. Möllering (2001: 132) offers the following examples of the effect that the use of modal particles has on an otherwise identical German sentence:

Es ist nicht einfach, dieses Problem zu lösen.

[This problem is not easily solved.]

Es ist ja nicht einfach, dieses Problem zu lösen.

[This problem is not easily solved, as you know.]

Es ist doch nicht einfach, dieses Problem zu lösen.

[But you will agree that this problem is not easily solved.]

Möllering (2001: 132) points out that native speakers of German would likely perceive the first example sentence, which has no modal particle, as brusque. The second sentence, with the MP *ja*, assumes a shared opinion between the speaker and the hearer. The third sentence, with the modal particle *doch*, indicates that the speaker perceives a difference of opinion with the hearer, but wants to come to a consensus.

A third issue that may make the acquisition of modal particles difficult for learners is the fact that many modal particles occur within the sentence, not at the beginning or end, as many English discourse markers do. Their location within the sentence phrase might make them more difficult for learners to perceive. Previous research into information processing has shown that learners process items in initial position first, followed by those in final position (Van Patten 2007). Items in medial position are processed last and therefore may be less perceptually salient to the learner.

Given the difficulties that learners are presented with, it is not surprising that previous research has shown that learners do not perceive the importance of modal particles. Harden & Rösler (1981) found that native speakers of German perceived conversations lacking modal particles to be unnatural. However, learners of German did not generally perceive this problem and in fact often preferred utterances without modal particles. Möllering & Nunan (1995) and Vyatkina (2007) found that learners of German as a foreign language differed from native speakers in their understanding of the changes in meaning effected by the use of modal particles.

Previous research into the acquisition of modal particles by learners of German has also shown that modal particles are acquired slowly in uninstructed contexts (Cheon-Kostrzewa & Kostrzewa 1987). In an instructed context, Möllering & Nunan (1995) found that raising learners' awareness of the illocutionary force of modal particles, combined with explanations and practice on their use, did have a positive effect for some learners. However, native-like levels of modal particle use have not been shown for learners of German.

2.2.3 Conjunctions

Although conjunctions may be easier to define and recognize as an object of study, they have not been examined much on their own as cohesive devices used by second language learners. Research on the use of conjunctions in second language acquisition falls into two broad areas. The first is research on connectives or connectors, which is generally done on L2 writing and on learners of English (Iwashita 2006). This type of research does not look at conjunctions exclusively, but also includes various kinds of adverbials and even discourse markers in the category of connectives. The results of research on connective use by non-native speakers have been mixed, with patterns of overuse and underuse of particular connectives (Granger & Tyson 1996; Tapper 2005).

The second type of research that has investigated conjunctions has looked at them not as indicators of cohesion but rather as an index of complexity, and has also focused more on writing than on speech. These studies have also shown mixed results, depending on the measure of complexity used (See Wolfe-Quintero et al. 1998; Norris & Ortega 2009 for overviews of this research). However, this research is of limited utility for the present study since it does not separate conjunctions out from other types of cohesive devices.

The studies mentioned above, conducted on L2 written production, are of limited utility for making predictions about conjunction use in L2 speech. As Biber et al (2011: 32) point out, the same measures of syntactic complexity are not appropriate for measuring complexity in speech and writing. Furthermore, researchers' intuitions about how complexity is manifested are often wrong. For example, Biber et al. (2011: 9) found that clausal subordination is actually more common in conversation than it is in writing.

Studies on complexity are relevant to the current study since they often include a measurement of dependent clauses as an index of grammatical complexity, which can give some idea of L2 learners' use of subordinating conjunctions. In terms of previous work on complexity using spoken data, three studies have examined syntactic complexity in data from foreign language learners at multiple proficiency levels, although none of them investigate learners of German. Watanabe (2003) found that the rate of embedded clauses increased from Intermediate to Superior speakers of L2 Japanese, but that connective particles seemed to play a relatively minor role in determining proficiency level. Iwashita (2006) found that high-proficiency learners produced more clauses than a low-proficiency group. Iwashita et al. (2008) found that

the number of clauses per T-unit and the ratio of dependent clauses to total clauses did not reliably distinguish between proficiency levels.

The results of the previous studies of syntactic complexity have been mixed and therefore offer mixed indications of the likely results from learners of German. If the results of the Japanese studies can be generalized to learners of German, we would expect that conjunction use will rise with proficiency level, and that other connecting words, such as modal particles, will not play a noteworthy role in distinguishing Intermediate- from Superior-level speakers. If instead, we generalize the results of Iwashita et al. (2008) on ESL learners to German, we would expect no substantial differences in clause frequency between learners at different proficiency levels.

2.3 Research Question

Given the potential value of modal particles and conjunctions for the attainment of discourse competence, further research is needed into how learners of German as a foreign language acquire and use both types of cohesive devices. This study aims to contribute to the investigation of these issues by exploring the following research question: how is the use of cohesive devices (modal particles and conjunctions) related to proficiency level?

It is expected that the use of cohesive devices will rise with proficiency level as learners are able to produce longer units of discourse. It is also expected that learners at all levels will use more conjunctions than modal particles due to the learning problems associated with modal particles.

3. Methodology

3.1 Setting and Procedures: The Oral Proficiency Interview

The data were obtained via an unofficial ACTFL Oral Proficiency Interview (OPI).² For the current study, two-minute excerpts from three different parts of the half-hour interview were transcribed.

² It must be noted that although an ACTFL-trained rater conducted and rated these samples, they cannot be considered official ACTFL OPIs. For an ACTFL OPI to be officially recognized by ACTFL, the examinee must pay a fee and then be rated by two raters. The examinee then receives a certificate attesting to their level of proficiency. Therefore, because

The OPI data were then transcribed and coded for the use of modal particles and conjunctions. The author and another rater, who is also a linguist and instructor of German, identified modal particles based on Helbig's (1994) list of *Abtönungspartikeln* (which he notes are also known as *Modalpartikeln*). This methodology was chosen since it allowed the raters to distinguish between homonyms of modal particles. For example, *ja* as a answering particle was not counted, but its use as a modal particle was counted. In coding the conjunctions, no pre-existing list was used; the raters read through the transcriptions looking for both coordinating and subordinating conjunctions. When the raters disagreed, they discussed the case and came to an agreement. Interrater reliability was .92. A complete list of all of the modal particles and conjunctions identified in the study can be found in the appendix. The rate of use of each cohesive device was then calculated by dividing the number of expressions used by the total number of words).

3.2 Participants

The data come from oral proficiency interviews from seventeen subjects who were native speakers of English. The subjects agreed to participate in the study simply to find out what level their German was at or in exchange for nominal remuneration. The 17 participants in the study were split into groups after the oral proficiency interview. There were six participants at the Intermediate level, six at the Advanced level, and five at the Superior level. The age of the participants was between 18 and 24, with a median age of 20. The gender of the participants was almost evenly split between nine males and eight females. All of the participants were students (either undergraduate or graduate) at a university in the US at the time of the testing.

4. Results

Figure 1 shows the average percentage of modal particles and conjunctions used at the three different proficiency levels:

these procedures were not followed, the data collected for this study are referred to as unofficial ACTFL OPIs. This way of obtaining the data were used because it was a way to rate the examinees reliably into different levels using a well-established scale.

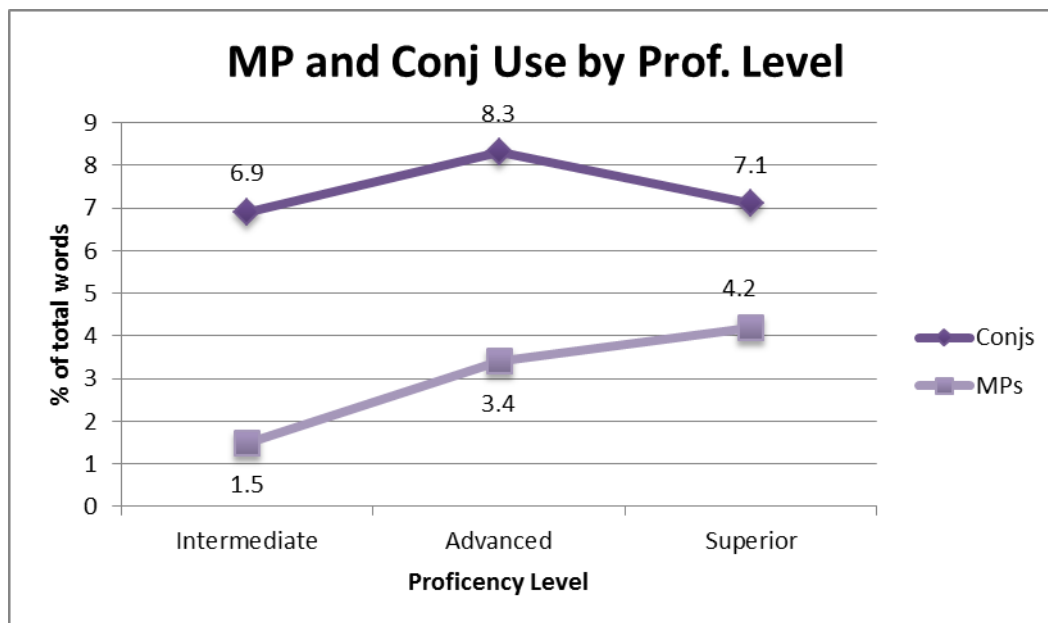


Figure 1 Modal particle and conjunction use by proficiency level

The graph reveals an interesting trend. The Intermediate and Advanced learners use more conjunctions than modal particles overall, and the rates of both gradually increase with proficiency level, from 6.9% to 8.3% for conjunctions and 1.5% to 3.4% for modal particles. But the Superior level speakers do not follow this trend. Their data show a rise in modal particles use to 4.2%, which is simultaneously accompanied by a drop in conjunction use, down to 7.1%.

These results show that learners use more modal particles as their proficiency level increases. The rise in the rate of modal particle usage is regular and consistent, going up 2.1% from Intermediate to Advanced and then jumping another 1.5% for the Superior level speakers.

For conjunction use, the pattern is not as simple. Advanced level speakers use more conjunctions than Intermediate-level speakers, but Superior level speakers do not use more conjunctions than the Advanced-level group. Instead, their rate of conjunction use (7.1%) resembles that of the Intermediate-level speakers (6.9%).

It was expected that learners at all proficiency levels would use more conjunctions than modal particles. This relationship was found at all three proficiency levels.

The sample size for this study is small and therefore less likely to achieve statistical significance. Furthermore, since such a small sample size may not be representative of the general population, the results presented below should be considered exploratory.

Nevertheless, two separate mixed ANOVAs (one for modal particle use and one for conjunction use) were performed on the data to examine the results for statistical significance. The results indicate that proficiency level was a significant factor ($F=4.19$; $p=0.038$) in the use of modal particles. Tukey-Kramer adjustments showed that the Intermediate and Superior levels were significantly different in their discourse marker use. The results of the Tukey-Kramer comparisons did not find statistically significant differences in the use of modal particles between the Advanced-Superior group pairing and the Intermediated-Advanced pairing. The results of the ANOVA for conjunction use show that none of the factors were significant.

The fact that the difference in modal particle use between the Superior and Intermediate levels was statistically significant, in spite of the relatively small sample size, may indicate the potential importance of differences in modal particle use by learners of German at different proficiency levels. The fact that the other pairs compared do not achieve statistical significance, however, does not mean that they are not also important, especially given the sample size. As noted above, due to the small sample size, the results should be considered preliminary.

As Ortega (2003) points out, studies in applied linguistics often rely too much on statistical significance to the exclusion of other measures, such as effect size. The data for effect sizes between the three proficiency levels can be found in Table 1, below. The effect sizes reported are Hedge's g and have been corrected for bias to small sample sizes. The effect sizes for modal particle use between the Superior-Intermediate and the Advanced-Intermediate group pairs can be characterized as large since they are above 0.80 (Cohen 1988). The largest effect size is found between the Superior and Intermediate-level proficiency groups.

Table 1: Effect sizes for modal particle and conjunction use

Groups compared	Hedge's g for conjunction use	Hedge's g for MP use
Superior-Advanced	0.526	0.411
Superior-Intermediate	0.097	1.71*
Advanced-Intermediate	0.549	1.18

*= significant at the .05 level

The effect sizes for conjunction use are not as large as those for modal particle use. The effect sizes for the Superior-Advanced and Intermediate-Advanced can be characterized as medium as they are close to 0.50 in value. The effect size for the comparison of the Superior-Intermediate levels does not meet the criterion for a small effect size (0.20).

One additional way to look at the results is to consider what percentage of cohesive devices are modal particles and what percentage are conjunctions at each of the three proficiency levels. This will show how the relationship between the two cohesive devices differs at different proficiency levels. This information can be found in Table 2, below.

Table 2 Raw figures and proportion of cohesive devices by level

	Total words	Total MPs	Total Conjs	Total CDs	% MPs	%Conjs
Superior	3079	130	220	350	37.1	62.9
Advanced	2867	97	238	335	28.9	71.1
Intermediate	2739	40	189	229	17.5	82.5

The results show that the function of cohesion is expressed differently by learners at different proficiency levels of L2 German. Cohesion is expressed more through modal particles and less through conjunctions as proficiency level rises. At the intermediate level of proficiency, cohesion is expressed by conjunctions (82.5%) more than modal particles (17.5%). At the Advanced level, the percent of conjunctions is lower and the percent of modal particles is higher; 28.9% of the cohesive devices are modal particles, and 71.1% are conjunctions. At the Superior level, the trend toward increased modal particle use is continued, with 37.1% of the cohesive devices used being modal particles and 62.9% conjunctions.

5. Discussion

The results in the previous section indicate that learners of German at different proficiency levels are more easily and clearly distinguished by their modal particle use than their conjunction use. That is, there was a statistically significant difference

between proficiency levels (Superior and Intermediate) involving modal particle use, but none in conjunction use. However, statistical significance indicates the reliability of the relationship, and not necessarily its strength. For this reason, we have also examined the effect size of differences in modal particle and conjunction use between different proficiency groups.

When we consider the results in terms of effect size, it is clear that important differences in modal particle use exist between all three proficiency groups. With the exception of the Superior-Advanced pairing, the effect sizes for the modal particle use can all be classified as large. This indicates that substantial changes take place in the acquisition of modal particles as learners achieve greater proficiency.

The results for effect size for conjunction use were not as large as those for modal particle use. There was little difference between the Superior and Intermediate group; although medium effect sizes were found for the other comparisons. This indicates that changes in conjunction use are not considerable as learners gain in proficiency. In fact the opposite trend is observed, with the Advanced group differing from the Superior and Intermediate groups, but the Superior and Intermediate group being quite similar in their conjunction use.

Superior level speakers still follow the trend of greater modal particle use at higher proficiency levels, but their usage of conjunctions falls off and is more than a percentage point lower than that of the Advanced level speakers.³ It may be that Superior speakers, with their access to a greater command of discourse markers, are relying on them to create coherent speech rather than conjunctions. If this is the case, then the question remains why this same pattern has not been in evidence in data from learners of other languages.

It is important to note that the results are also contrary to what was expected based on previous research on learners of Japanese (Iwashita 2006; Watanabe 2003), which also focus on multiple proficiency levels. As discussed above, if German learners were to follow the same general trend as learners of Japanese, we would expect their conjunction use to rise from the Intermediate to the Superior level and for connecting

³ As pointed out by an anonymous reviewer, the Superior speakers' reduced use of conjunctions may be related to the prevalence of main clause constructions in spoken German. In this case, the Superior speakers' rate of conjunction use would reflect the fact that they more closely approximate native speaker norms.

words to play a less important role in distinguishing between levels. In fact, the opposite was the case, with modal particles showing more differences between levels than conjunctions. The pattern of conjunction use for learners of German was also distinct from learners of English. Iwashita et al. (2008) showed that the effect size differences in T-unit complexity and dependent clause ratio were marginal and that these measures did not distinguish well between learners at different proficiency levels. The effect sizes in this study for conjunction use were stronger. This difference in results highlights the need for cross-linguistic study of learner language and might indicate a tendency in the relationship between cohesive devices that is specific to German.

Helbig (1994) has discussed the relationship between modal particles and conjunctions in German. Helbig (1994:63) notes that modal particles (he uses the less-widely used term *Abtönungspartikel*) have a functional similarity to conjunctions:

Ich gehe nicht schwimmen, **weil** das Wasser noch viel zu kalt ist.

Ich gehe nicht schwimmen. Das Wasser ist **ja** noch viel zu kalt.

[I won't go swimming **because** the water is still much too cold.

I won't go swimming. The water is still much too cold, **as you know.**]

In the examples above, both the conjunction *weil* and the modal particle *ja* serve to connect the two utterances in a logical fashion. The difference between modal particles and conjunctions, according to Helbig, is that conjunctions connect explicit utterances while particles may connect an utterance to less explicit attitudes or assumptions.

This especially close relationship between modal particles and conjunctions in German may help to explain the results of this study. As learners acquire control over modal particles, they are able to use them instead of conjunctions to create cohesive discourse. This would explain why conjunction usage is lower at the Superior level, since the conjunctions are being replaced by modal particles as expressions of cohesion. The same effect would not necessarily be the case in other languages that do not have as many modal particles as German and in which the functional equivalence of modal particles and conjunctions is not as similar.

6. Conclusion and limitations

The results above demonstrate that modal particle use rose with proficiency level, and that conjunction use rose from Intermediate to Advanced, but then fell at the Superior level. These results were partially expected in that learners at higher proficiency levels

should be able to produce longer sequences of cohesive speech, which will require the use of more cohesive devices. What was not expected was the fact that the Superior proficiency group actually used fewer conjunctions than Advanced-level speakers. This result was considered in terms of a particularly close relationship between modal particles and conjunctions in German. It appears that as modal particles become more available to learners, they are increasingly relied on to provide cohesion in discourse. This result may be unique to German and suggests a potentially promising direction for future cross-linguistic investigations.

One limitation of this study is that there may be other ways in which learners create cohesion in speech that were not examined. As mentioned above, Halliday & Hasan (1976) identified four types of cohesive relations (reference, substitution, ellipsis, and conjunction). This study has only examined the use of cohesive devices to create the cohesive relation of conjunction. Another limitation of the study is the fairly small sample size, and the fact that data from native speakers were not included. The inclusion of data from native speakers performing the same tasks under the same conditions is important so that task and processing effects can be distinguished from effects resulting from the speakers' level of interlanguage development (Foster & Tavakoli 2009). Further research should build on these limitations.

Data here on the use of modal particles and conjunctions highlight the importance of cross-linguistic research into the development of cohesion in L2 speech production. The results of this study were considerably different from what might be expected based on previous work on learners of Japanese and English. This may be related to the particular nature of modal particles in German and their special relationship with other pragmatic and cohesive devices in the language. Further research on the use of these expressions in German by both native speakers and learners is needed in order to decode the relationship between modal particles and other modal expressions.

Bibliography

- Abraham, Werner (1991) *Discourse Particles*. Amsterdam: John Benjamins Publishing Company.
- Belz, Julie. A.; Vyatkina, Nina (2005) Learner Corpus Analysis and the Development of L2 Pragmatic Competence in Networked Intercultural Language Study: The Case of German Modal Particles. *Canadian Modern Language Review/La Revue canadienne des langues vivantes* 62, 17-48.
- Biber, Douglas; Gray, Bethany; Poonpon, Kornwipa (2011) Should We Use Characteristics of Conversation to Measure Grammatical Complexity in L2 Writing Development? *TESOL Quarterly* 45, 5–35.
- Breiner-Sanders, Karen E.; Swender, Elvira (1999) ACTFL Oral Proficiency Interview Tester Training Manual. *Yonkers, NY: American Council on the Teaching of Foreign Languages*.
- Cheon-Kostrzewa, Bok J.; Kostrzewa, Frank (1997) Der Erwerb der deutschen Modalpartikeln. Ergebnisse aus einer Longitudinalstudie (I). *Deutsch als Fremdsprache* 2, 86-92.
- Cohen, Jacob (1988) *Statistical Power Analysis for the Behavioral Sciences*. Hillsdale, NJ: Erlbaum.
- Crossley, Scott; Salsbury, Thomas Lee; McNamara, Danielle S. (2010) The Role of Lexical Cohesive Devices in Triggering Negotiations for Meaning. *Issues in Applied Linguistics* 18, 55-80.
- Fischer, Kerstin (2013) Discourse Markers. *The Encyclopedia of Applied Linguistics*.
- Foster, Pauline; Tavakoli, Parvaneh (2009) Native Speakers and Task Performance: Comparing Effects on Complexity, Fluency, and Lexical Diversity. *Language Learning* 59, 866–896.
- Fuller, Janet (2003) The Influence of Speaker Roles on Discourse Marker Use. *Journal of Pragmatics* 35, 23-45.
- Fung, Loretta; Carter, Ronald (2007) Discourse Markers and Spoken English: Native and Learner Use in Pedagogic Settings. *Applied Linguistics* 28, 410–439.
- Granger, Sylviane; Tyson, Stephanie (1996) Connector Usage in the English Essay Writing of Native and Non-native EFL Speakers of English. *World Englishes* 15, 17–27.
- Halliday, Michael A. K.; Hasan, Ruqaiya (1976) *Cohesion in English*. London: Longman.
- Halliday, Michael A. K.; Matthiessen, Christian M. I. M. (2004) *An Introduction to Functional Grammar*. London: Arnold.
- Harden, Theo; Rösler, Ditmar (1981) Partikeln und Emotionen – zwei vernachlässigte Aspekte des gesteuerten Fremdspracherwerbs. In: Harald Weydt (ed.) *Partikeln und Deutschunterricht: Abtönungspartikeln für Lerner des Deutschen*. Heidelberg: Julius Groos, 67-80.
- Hasselgreen, Angela (2005) *Testing the Spoken English of Young Norwegians: A Study of Test Validity and the Role of “Smallwords” in Contributing to Pupils’ Fluency*. Cambridge: Cambridge University Press.

- Hellermann, John; Vergun, Andrea (2007) Language Which Is Not Taught: The Discourse Marker Use of Beginning Adult Learners of English. *Journal of Pragmatics* 39, 157–179.
- Helbig, Gerhard (1994) *Lexikon deutscher Partikeln*. Leipzig: Langenscheidt.
- Iwashita, Noriko (2006) Syntactic Complexity Measures and Their Relation to Oral Proficiency in Japanese as a Foreign Language. *Language Assessment Quarterly: An International Journal* 3, 151–169.
- Iwashita, Noriko; Brown, Annie; McNamara, Tim; O'Hagan, Sally (2008) Assessed levels of second language speaking proficiency: How distinct? *Applied Linguistics* 29, 24–49.
- McCarthy, Michael (1993) Spoken Discourse Markers in Written Text. In: John M. Sinclair, John M.; Hoey, Michael; Fox, Gwyneth (eds.) *Techniques of Description: Spoken and Written Discourse*. New York: Routledge, 170-182.
- Möllering, Martina (2001) Teaching German Modal Particles: A Corpus-based Approach. *Language Learning & Technology* 5, 130-151.
- Möllering, Martina (2004) *The Acquisition of German Modal Particles*. Bern: Lang.
- Möllering, Martina; Nunan, David (1995) Pragmatics in Interlanguage: German Modal Particles. *Applied Language Learning* 6, 41-64.
- Müller, Simone (2005) *Discourse Markers in Native and Non-native English Discourse*. Amsterdam: John Benjamins Publishing Company.
- Norris, John M; Ortega, Lourdes (2009) Towards an Organic Approach to Investigating CAF in Instructed SLA: The Case of Complexity. *Applied Linguistics* 30, 555–578.
- Ortega, Lourdes (2003) Syntactic Complexity Measures and Their Relationship to L2 Proficiency: A Research Synthesis of College-level L2 Writing. *Applied Linguistics* 24, 492-518.
- Romero-Trillo, Jesús (2012) Pragmatic Markers. In: Carol Chapelle (ed.) *The Encyclopedia of Applied Linguistics*. Oxford: Wiley-Blackwell, 4522-4528.
- Schiffrin, Deborah (1988) *Discourse Markers*. Cambridge: Cambridge University Press.
- Svartvik, Jan (1980) *Well* in Conversation. *Studies in English Linguistics for Randolph Quirk*, 167–177.
- Schourup, Lawrence (1999) Discourse Markers. *Lingua* 107, 227–265.
- Tapper, Marie. (2005) Connectives in Advanced Swedish EFL Learners' Written English—Preliminary Results. *The Department of English: Working Papers in English Linguistics* 5, 116–144.
- VanPatten, Bill; Williams, Jessica (2007) *Theories in Second Language Acquisition: An Introduction*. London: Lawrence Erlbaum Associates.
- Vyatkina, Nina A. (2007) *Development of Second Language Pragmatic Competence: The Data-driven Teaching of German Modal Particles Based on a Learner Corpus*. The Pennsylvania State University.
- Watanabe, Suwako (2003) Cohesion and Coherence Strategies in Paragraph- Length and Extended Discourse in Japanese Oral Proficiency Interviews. *Foreign Language Annals* 36, 555–565.
- Wolfe-Quintero, Kate; Inagaki, Shunji; Kim, Hae-Young (1998) *Second Language Development in Writing: Measures of Fluency, Accuracy, & Complexity*. Honolulu: University of Hawaii Press.

Appendix

List of modal particles (Helbig 1994) and conjunctions examined

Modal Particles	Conjunctions
aber	aber
allerdings	als
also	als ob
auch	also
bloß	bis
denn	dann
doch	dass
eben	denn
eh	insofern
eigentlich	ob
einfach	obwohl
einmal	oder
erst	ohne zu
etwa	seit
gar	sodass
gleich	sondern
halt	solange
immerhin	sonst
ja	trotzdem
jedenfalls	um zu
mal	und
man	während
nicht	weil
nun	wenn
nun einmal	wie
nur	wo
ohnehin	was
ruhig	
schließlich	
schon	
sowieso	
überdies/im übrigen	
überhaupt	
übrigens	
vielleicht	
wohl	

Biographical Information

Colleen Neary-Sundquist (cnearysu@purdue.edu), PhD is an Assistant Professor of Applied Linguistics in the School of Languages and Cultures at Purdue University, West Lafayette, USA. Her research interests include the use of corpora in language teaching and research, task-based language teaching, the development of complexity in learner language, and materials development for language teaching.

Keywords

cohesion, modal particles, conjunctions, second language acquisition, oral proficiency