Reima Al-Jarf

King Saud University Riyadh, Saudi Arabia

EFFECT OF BACKGROUND KNOWLEDGE ON AUDITORY COMPREHENSION IN INTERPRETING COURSES

Abstract

Saudi college students majoring in translation take 6 interpreting courses. In those courses, they practice listening to and interpreting authentic lectures in a variety of subject areas. Results of an interpreting pretest showed that college students majoring in an interpreting course have problems with media reports. They have difficulty discriminating phonemes and comprehending the meaning of unfamiliar foreign proper nouns such as place name, names of politicians, organizations, chemicals or diseases that they encounter in oral media reports. Results of questionnaire-interviews with students showed that the source of difficulty was lack of prior knowledge and unfamiliarity with foreign proper names.

Key words: interpreting skills, foreign proper nouns auditory discrimination, meaning transfer, background knowledge.

1 Introduction

Listening in a second language constitutes a major problem for many students and instructors. Students often have auditory discrimination problems such as difficulty in discriminating sounds of words and letters, difficulty in distinguishing important and unimportant sounds, difficulty in blending sounds into words or difficulty in associating sounds of words with meaning (Mann & Suit, ND). Many have listening comprehension problems such as difficulty understanding the main ideas, supporting details, organization of oral discourse or inability to figure out the meaning of difficult vocabulary from the spoken context. Successful beginning level language listeners use more metacognitive strategies and use these strategies to interact at a deeper level with a text to construct meaning (Vandergrift (1998). On the contrary, lower-level adult ESL listeners resort to the wrong aspects of the lecture in responding to comprehension questions, while advanced learners exhibit both metacognitive and

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cognitive learning strategies. Intermediate and lower-level learners mostly make use of cognitive strategies (Smidt & Hegelheimer (2004).

A review of the literature has shown several studies that investigated the factors that help enhance second language auditory discrimination and comprehension skills. Research findings show that Schemata and linguistic knowledge play a significant role in second-language listening comprehension and contribute to listening proficiency (Long (1990). The effect of background knowledge was found to vary according to the level of language proficiency among international students in Germany (Krekeler (2006). Students understand and recall the passage related to their specific knowledge better than the unrelated passage (Markham and Latham (1987). Cultural background knowledge (cultural familiarity) has a facilitating effect on both reading comprehension and reading efficiency of third graders acquiring literacy in Dutch as a first and second language (Droop and Verhoeven_(1998). L2 learner's prior cultural knowledge also plays a role in target language lexical meaning-making. A central meaning of an L2 word (conceptual, connotative, synonyms, antonyms, lexical cultural categories, specific knowledge in lexical meanings, and cross-linguistic factors) exists and is shared by the L2 learners with the same cultural background (Qi (1992).

Several research findings also indicated that teachers can enhance students' auditory discrimination, comprehension and recall by speech modification (Chiang and Dunkel (1992), by presenting the students with varying levels and amounts of background information and analogy (Hayes & Tierney (1980), and by increasing attention to personal background knowledge in instruction (Lin & Bransford, 2010). Providing advance information specific to a novel event leads to better recall and better integration of the experience into a general event representation both soon after the event and even four months later (Sutherland, Pipe, Schick, Murray and Gobbo, 2003).

Depth and breadth of vocabulary knowledge were found to be significantly correlated with listening comprehension skill and could predict half of the variance in the listening scores (Staehr, 2009). A lexical coverage of 98% is needed for coping with the spoken texts that constitute the listening test (Staehr, 2009). General vocabulary knowledge and familiarity with the specific vocabulary content of a reading or listening comprehension text influence reading and listening comprehension of that text (Mehrpour & Rahimi, 2010). Efficient listening strategies may make the comprehension of lexically complex texts possible. However, most learners need very high lexical familiarity for good comprehension (Bonk, 2000). Lexical and grammatical knowledge affect reading and listening comprehension in university students learning Spanish (Mecartty, 2000).

Vocabulary size is also important for language proficiency. Staehr (2008) found that vocabulary size explains a significant and substantial portion of the variance in the listening scores and that the majority of the learners did not know the most frequent 2000 words in English, but if they did, they would also perform adequately in the listening, reading and writing tests. Staehr (2008) concluded that the 2000 vocabulary level is a crucial learning goal for low-level EFL learners. In a similar study, Nation (2006) reported on the trialing of fourteen 1,000 word-family lists made from the British National Corpus to see what vocabulary size is needed for unassisted comprehension of written and spoken English. The trialing showed that if 98% coverage of a text is needed for unassisted comprehension, then an 8,000 to 9,000 word-family vocabulary is needed for comprehension of written text and a vocabulary of 6,000 to 7,000 for spoken text.

Brown, Waring and Donkaewbua (2008) examined the rate at which English vocabulary was acquired from the 3 input modes of reading, reading-while-listening, and listening to stories. The results showed that new words could be learned incidentally in all 3 modes, but that most words were not learned. Items occurring more frequently in the text were more likely to be learned and were more resistant to decay. The data demonstrated that, on average, when subjects were tested by unprompted recall, the meaning of only 1 of the 28 items met in either of the reading modes and the meaning of none of the items met in the listening-only mode, would be retained after 3 months.

As to the combined effect of background knowledge and difficult vocabulary on students' comprehension of narrative passages and recall of a passage from a social studies text, research Stahl and Others (1989); Stahl & Jacobson (1986) indicated that vocabulary difficulty may affect micro-processing (development of coherent text base) while prior knowledge may affect macro-processing (summarizing), and that these effects function independently, not interactively. Knowledge-based pre-instruction can significantly improve comprehension of a text dealing with an unfamiliar topic but cannot compensate for difficult text vocabulary.

Although numerous studies revealed a close connection between background knowledge and/or difficult vocabulary and auditory discrimination and listening comprehesnion, studies that investigate the effects of background knowledge and/or difficult vocabulary on auditory discrimination and comprehension while interpreting media reports from English into Arabic and from Arabic into English are lacking. Therefore, the present study aims to investigate the effects of background knowledge and unfamiliar vocabulary on auditory discrimination and comprehension while interpreting media reports from English into Arabic and from Arabic into English. The study will investigate students' ability to discriminate phonemes in unfamiliar foreign

proper nouns such as place name (foreign countries, cities, states), names of politicians, heads of state and prime ministers, international organizations, forums and corporations, acronyms, that they encounter in media reports and which hinder comprehension and transfer of meaning into English or Arabic.

2 Participants

74 senior female students majoring in translation at the College of Languages and Translation (COLT), King Saud University, Riyadh, Saudi Arabia participated in the study. They were in their 5th semester of the translation program and were all enrolled in their first liaison interpreting course (2 hours) that the author taught. All the subjects were native speakers of Arabic. They all had completed courses in EFL (66 hours) and were concurrently enrolled in linguistics (11 hours), consecutive and simultaneous interpreting courses (4 hours).

3 Data Collection

3.1 Tasks

In the first liaison interpreting course, interpreting training proceeds in a series of graded exercises and steps consisting of: Breathing exercises; speech shadowing exercises; sentence paraphrasing exercises; summarizing in the same language, first of sentences, then of whole paragraphs; memory training exercises in which the students interpreting words, sentences, and short easy dialogs; interpreting easy specialized interviews with familiar topics, then interviews increase in length, difficulty level and topic familiarity.

3.2 Test

One month after the beginning of the semester, the subjects took an interpreting test which consisted of 5 Arabic and 5 English dialogues. The dialogues consisted of media reports on education, IT, politics, medicine and business topics. The dialogues were tape recorded. The test was given in the language lab where the students listened to each dialogue from the audio-tape and were required to interpret the Arabic dialogues into English and the English dialogues into Arabic. Each student recorded her interpretation of the texts that she heard on tape.

The author listened to each student's tape and recorded her interpreting errors on the dialogue script. Each student was given 2 scores: An overall

interpretation accuracy score and a vocabulary error score. Both scores were correlated.

A corpus of 560 errors in interpreting foreign proper nouns such as place name, names of politicians, organizations, news agencies that they encounter in media reports was collected. Corpus analysis started by highlighting the errors. Each error was then classified as being an auditory discrimination error or a semantic error (meaning transfer error). The strategies that the students used in figuring out the English or Arabic equivalents in the flow of speech were identified. Auditory discrimination and meaning transfer errors sources were also identified.

3.3. Questionnaire-Interviews

To find out the sources of difficulties that the students encountered while interpreting the media reports in the test, the participants answered an open-ended questionnaire-interview.

4 Results

4.1 Types of Interpreting Errors

Results of the analysis of the interpreting error data revealed a significant correlation between the students' overall interpreting accuracy score and her vocabulary errors score (r = .58; p<.01), which means that good student interpreters rendered highly accurate interpretations of the dialogues and made fewer vocabulary meaning errors, whereas poor student interpreters produced poor, incomprehensible and incoherent interpretations of the dialogues and many vocabulary meaning errors.

Results of the analysis of the interpreting error data also indicated that student interpreters in the current study had problems comprehending media reports and interpreting their content from English into Arabic and Arabic into English. The students had difficulty in discriminating phonemes unfamiliar foreign proper nouns such as place name, names of politicians, organizations, news agencies that they encounter in media reports. They had difficulty comprehending the meaning of unfamiliar chemicals, diseases, names of organizations, measurement units, acronyms referring to international organizations, political posts and providing the correct English or Arabic equivalent.

In examples 1-10 in Table (1), the participants had difficulty hearing the phonemes in *Rio di Janero, Paraguay, Al Gor, Chromium, microgram, Abuja, Davos, Scandinavia* and *St Louis Misouri* whether they were heard in English or Arabic. Such proper nouns are borrowed in Arabic. In 75% of error data (words and phrases), the

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students gave a nonsense word as in 'Dignero' for 'Rio De Janero'. In 14%, a familiar word that rhymes with the stimulus word (source word) was given such as 'Al go & goal' instead of 'Al Gore', some confused 'Balkans' and 'volcano'. In 10%, words and phrases were reduced as in 'Buja' instead of 'Abuja', 'micro' instead of 'microgram' probably because of poor short term memory. In other errors, phonemes were substituted as in 'Dagos, Dados, Dabos' for 'Davos'. 'NADO' for 'NATO', PCA instead of PCA.

Source Text	Examples of Misinterpretations
ريو دي جانيرو 1.	Rio Dignero – Janerio – Rio Jinero – du Ri– Ridigi tora
	– dew Grano– Rio Ranyero – redio –Gnero
باراغواي .2	Bilgrulay
أل غور . 3	al go – algaw – Al Tor – Arjer – Al Gairo – Goal – Al
	Jool
4. Abuja	Albuja, Buja, Buji
5. Davos	Dagos, Dabos, Dados
6. Scandinavia	Skinavia
7. Helinx (38%)	Helinx (38%)
8. Saint Louis, Missouri (50%)	ليزوري – روزوري –ميزوريا سنت لويس بمنسوري - ساحة سينت
	لويس – لويس كنسوري – سنت ميزوراي/مدينة الميزري – ميرازي
9. أثينا , i.e., Athens	Athina
(63%) مادة الكروميوم .10	clodiom - criyomine –lokerteem – lenkemeem
	cronium chronomium – cromemine –lokonium
میکغم .11	micro – microme
12. PDA	(heard it PCA)
13. NATO	قوات النادو
14. WHO (66%)	من
15. FAO (%40)	المنظمة العالمية للاغذية والزراعة -منظمة الغذاء والزراعة
16. An inflated Balkans	التضخم في البلقان – البراكين المتفجرة المكونة من عدة دول
17. A Rand Corporation study	دراسة ادارية مشتركة - للتعاون الواسع - دراسات الهيكل المؤقتة -
	التعاون - تعاونية - دراسات اراند التعاونية - دراسة تعاونية –
	الدراسات التعاونية - دراسة مشتركة - دراسة شاملة - دارسة
	المؤسسات - دراسات الهئية - دراسة متعاونة - دراسة هيئة خاصة
18. World Bank:-	البنك العالمي - البنك الدولي العالمي - بنك العالم - البنك الدولي
	الخارجي
19. Exchange programs (83%):	برامج التبديل - تبادل البرامج - تغيير البرامج - تعديل البرامج - تبادل
	البرامج - تبادل البرامج - البرامج المتغيرة
الاتحاد الاوروبي .20	Soviet Union -United Europe

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infection of this disease – arthroritis the rheumatism
 viral infection – artrititist –arthrititis – arthritics –
artimisism – rheumatism infection – athelitis –wo
romaorthopedics - infelmation –airthritist – infection
of rheum.
announcement – announcing –announced –
agreement – advertising –world announcement -
National – National council – Nation – people's
association - Nation council –society council –
cabinet –K assembly – cabinet – community council –
–Umah council – People Shura Council – council of
people
under state minister - internal affairs –sub minister –
under secretary of internal – under foreign minister
 vice minister of interior affairs inter M – under
internal M – vice internal M – vice president of
interior minister.
supervisor – foreign offers – Am dept – State Dep –
foreign Dept in America – under security foreign –
American responsible – prime minister –security of
interior dept – under secretary of foreign dept –
secretary of Dept State – foreign minister.

Table (1) A sample of Auditory Discrimination Errors

Examples 13-25 in Table (1) show semantic errors in interpreting media reports, i.e., meaning transfer errors. Error data analysis showed that 66% of the participants translated 'WHO' in (14) as a Question word, although the whole media report talked about the World Health Organization. The context in which the acronym occurred was not taken into consideration. They interpreted it as if 'WHO' was used in isolation. 40% knew what FAO in (15) was about but they did not know the exact Arabic equivalent. They manipulated the word order. In interpreting 'inflated' in (16), some participants used the Arabic equivalent used in economic contexts, others interpreted it as 'exploding' that fits the 'volcano' context.

4.2 Interpreting Error Sources

Questionnaire-interviews with the participants revealed inadequate L1 competence. The participants indicated that they were unfamiliar with the Arabic terms for the following: World bank, exchange programs, Abuja, Davos, Scandinavia. St Louis, Mo, PDA, NATO, WHO, FAO. They reported that they were unfamiliar with the different designations used in different Arab countries for 'Parliament. In Egypt the parliament is called 'People's Council', in Jordan it is called 'Council of Representatives' and in Kuwait is called 'National Council'. They did not know that the English equivalent should be 'parliament' regardless of the Arabic designation used in the different countries.

The error data analysis, as well as questionnaire-interviews, also revealed lack of proficiency in EFL, i.e. limited vocabulary knowledge. The participants are unfamiliar with English terms such: الاتحاد الاوروبي، الاعلان العالمي لحقق الانسان، مجلس الامة الكويتي، نائب وكيل وزراة الخارجية الامريكي.

The participants indicated that although Arabic has the same designation for the same political post in Arab countries, the USA and UK as in شس هى نائب وزير الداخلية الاهمالي , although the English equivalent depends on the country. They indicated that they were not familiar with the equivalent English term used in the USA, UK and Saudi Arabia for the same political post. Thus they overgeneralized American designation to the Saudi or British context.

Finally the subjects reported that they did not know the specific context in which a particular meaning of a polysemous word is used in both English and Arabic such as: inflated, under secretary, الأعلان العالمي، مجلس الأمة

4.3 Interpreting Strategies

The interpreting error data revealed several strategies that the participants resorted to when they encountered foreign proper noun with which they were unfamiliar. Whenever they heard an unfamiliar word or phrase in the spoken source text with which they had auditory discrimination difficulty, they would produce (make up) nonsense words that rhyme with the source words as in 'Dagos, Dados, Dabos' which they provided for 'Davos'; 'clodiom, cronium chronomium, lokonium' which they provided for 'chromium'. 50% of the participants provided nonsense equivalents such as 'lizouri, rozouri, kansouri, mansouri' instead of Misouri, 'Scinavai' for 'Scandinavia'. Sound analogy was also used in producing equivalent for unfamiliar words and phrases. 'Corporation' and 'volcanoes' were provided as equivalents for 'Rand Corporation' and 'Balkans'.

A second strategy was used with polysemous words in the source text which have one-to-many equivalents. In Arabic, the word 'اعلان' is polysemous and has 3

English equivalents 'announcement, declaration, & advertisement'. But due to inadequate vocabulary knowledge in English, the participants could only access 'announcement' while interpreting the source text, as they were not familiar with 'declaration', although it did not fit the new context 'Universal Declaration of Human Rights' in which it occurred. The same strategy was applied in interpreting 'inflated Balkans' since the meaning they could access was the one used in an economic context, not the one used in a political context.

A third strategy was use of literal translation, i.e., word for word translation, in cases such as the *Kuwaiti Parliament* which is literally called the *'National Council'* in Arabic, *The World Bank*, and *Universal Declaration of Human Rights, FAO*, *Rheumatoid arthritis*,

A fourth strategy was overgeneralization of the Arabic term. Since the participants knew that some names of countries and cities are identical in English and Arabic, they overgeneralized this to cases in which the English and Arabic designations are different. Since some students were unfamiliar with 'Athens' as an equivalent for the Arabic 'Athina', they transferred the Arabic 'Athina' to the English target text.

A fifth strategy that was used in few cases was use of erroneous equivalents as in rendering 'The Soviet Union' for the 'EU'.

5 Discussion

A positive correlation was found between the participants' overall interpreting test scores and their word knowledge accuracy score. This finding is consistent with Staehr's (2008) study with Danish secondary students in which he found a strong relationship between vocabulary size and listening ability in English as a foreign language and that the majority of the learners did not know the most frequent 2000 words in English, and if they did, they would perform adequately on the listening test. Staehr's findings suggest that the 2000 vocabulary level is a crucial learning goal for low-level EFL learners.

Analysis of the interpreting error data in the present study showed that the participants seemed to lack metacognitive skills, i.e. thinking processes they were using while interpreting. Some participants seemed to interact with the media reports at a superficial level, and hence failed to interpret and construct the accurate meaning that fit its context. They would provide the first meaning that crossed their mind whether it fit the context or not. In figuring out the meaning of unfamiliar words, they made glosses that fit the micro-context (at the phrase or sentence level, although this context was invented by the participants) but not the global context at the media report level. This finding is also consistent with findings of a study Vandergrift (1998)

in which he found that successful beginning level language listeners use more metacognitive strategies and use these strategies to interact at a deeper level with a text to construct meaning. Students in the present study resorted to the wrong aspects of the media report in interpreting unfamiliar words and phrases. Here again, low level interpreting students made use of cognitive strategies which students in Smidt & Hegelheimer's (2004) study made use. Smidt & Hegelheimer found that lower-level adult ESL learners enrolled in a listening comprehension are more likely to resort to the wrong aspects of the lecture in responding to comprehension questions, while advanced learners exhibited both metacognitive and cognitive learning strategies.

Results of the present study show the interaction between interpreting students' schemata and their vocabulary knowledge. This finding is consistent with prior studies. Bonk (2000) tested 59 Japanese university students of low-intermediate to advanced English ability using first-language recall protocols as comprehension measures and found that efficient listening strategies made comprehending lexically complex texts possible, but that most learners needed very high lexical familiarity for good comprehension.

Familiarity with current world events seemed to strongly affect the interpretation of media reports in the present study and contribute to its accuracy especially names of cities such as Rio de Janero, Athems, St Louis, Mo, Abuja; countries such as Paraguay and Scandinavia; the World Economic Forum in Davos; international organizations and corporations such as FAO, WHO, World Bank, Rand Corporation. Interpreting errors in the current study showed the interaction between of prior knowledge and difficult vocabulary. There was no title in the taped dialogues (media reports) to help the students guess the overall topic of the dialogue. The participants listened to the dialogue once and in small segments. This finding is consistent with prior studies as well. Qi (1992) investigated the role of a second language (L2) learner's prior cultural knowledge in target language lexical meaningmaking. Findings were that a central meaning of an L2 word (word's meanings (conceptual, connotative, synonyms, antonyms, lexical cultural categories, specific knowledge in lexical meanings, and cross-linguistic factors) exists and is shared by the L2 learners with the same cultural background (Al-Jarf, 2010; Al-Jarf, 2008; Al-Jarf, 2005a; Al-Jarf, 2005b).

6 Conclusion

Interviews with students showed that the source of difficulty was unfamiliarity with foreign proper names, Organizations, Acronyms, Names of foreign countries,

states & cities; Presidents, prime ministers and so on. To help interpreting students at COLT acquire world knowledge, they were required to watch English T.V. news on CNN or BBC, read news headlines and news stories of major world events in English newspapers, do note-taking and summarizing exercises. At the end of the semester, the students were post-tested. Posttest results revealed significant improvements in students' auditory discrimination and comprehension of foreign proper names in the flow of oral discourse (Al-Jarf, 2007; Al-Jarf, 2000).

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