The effect of directionality on performance and strategy use in simultaneous interpreting: A case of English-Turkish language pair

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Abstract

The aim of this study is to explore the effect of directionality on the performances and strategy preferences of student interpreters during simultaneous interpreting (SI) tasks while interpreting from English to Turkish (B>A) and from Turkish to English (A>B). Descriptive method was used in this study, in which the sample group was composed of 14 interpreting students; thus, their interpreting outputs were analyzed to gather the related data for the purpose of the study. The participants of the study were asked to interpret one English speech and one Turkish speech; they were inquired about their language background, strategy uses during the tasks and self-assessment of their interpreting performances by means of questionnaires. Interpretations in both directions were assessed by two external raters on the basis of quality criteria. Another assessment was conducted by using propositional analysis. The data related to strategy preferences of the subjects during SI tasks in different directions were collected from the remarks of the subjects in strategy use questionnaire. The results indicate that there was a significant difference between the interpreting performances of participants in terms of interpreting quality in the favor of B>A direction. On the other hand, the propositional analysis revealed that the subjects rendered more accurate propositions in the direction of A>B. No significant difference was observed between the strategy preferences of the subjects. It is expected that the study will prove to be useful for further studies on directionality in the field of SI.

Keywords: Directionality in simultaneous interpreting, strategy use, interpreting quality, propositional analysis.

Andaş çeviride çeviri yönünün performansa ve strateji kullanımına etkisi: İngilizce-Türkçe dil çifti

Öz

Bu çalışmanın amacı, çeviri yönünün İngilizceden Türkçeye (B>A) ve Türkçeden İngilizceye (A>B) andaş çeviri yaparken öğrencilerin andaş çeviri performansları ve strateji tercihleri üzerindeki etkisini incelemektir. Örneklem grubunu 14 öğrencinin oluşturduğu bu çalışmada betimleyici ve nitel metot kullanılmıştır. Öğrencilerin her iki dildeki çevirileri çalışmanın amacına uygun olarak veri toplamak amacıyla incelenmiştir. Öğrencilerden bir İngilizce ve bir Türkçe konuşmayı çevirmeleri istenmiştir. Anketleri aracılığıyla öğrencilerin dil becerileri ve seviyeleri, çeviri sırasında kullandıkları stratejiler ve yaptıkları çevirilerin öz değerlendirmeleri hakkında bilgi edinilmiştir. Öncelikle, öğrencilerin her iki yöndeki çevirileri çeviri kalitesi kıstasları açısından iki dış değerlendirici tarafından değerlendirilmiştir. Önerme analizi kullanılarak çeviri içeriğin doğruluğu

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değerlendirilmiştir. Öğrencilerin andaş çeviri esnasında strateji kullanımı ve tercihlerine yönelik veri, öğrencilerin strateji kullanımı anketine verdikleri cevaplardan toplanmıştır. Bu çalışmanın sonuçları, çeviri kalitesi açısından öğrencilerin çeviri performansları arasında B>A çeviri yönü lehine belirgin bir fark olduğunu göstermektedir. Öte yandan, önerme analizi, öğrencilerin A>B çeviri yönünde daha fazla önermeyi doğru çevirdiklerini göstermiştir. Öğrencilerin strateji tercihleri açısından ise belirgin bir fark gözlenmemiştir. Böylesi çok boyutlu bir çalışmanın andaş çeviride çeviri yönü konusundaki ileriki çalışmalar için faydalı olacağı umulmaktadır.

Anahtar kelimeler: Andaş çeviride çeviri yönü, strateji kullanımı, çeviri kalitesi, önerme analizi.

1. Introduction

Interpreting plays a significant role in every aspect of our life ranging from daily interactions to highly formal and high-level meetings. As a part of this highly demanding and cognitively challenging act of communication, the debate of *directionality*, that is whether interpreting from a second language (B language) into the native language (A language) is better than interpreting from A language into B language has caught the attention of many scholars and practitioners. While the question of how language direction impacts the interpreting performance is debated, the practice of retour interpreting (interpreting into B language) has been associated with cognitive constraints and disadvantages due to limited linguistic and cultural resources in non-dominant languages (B language) (Wu & Liao, 2018). However, it should be noted that the increasing international communication, increased mobility, development of technology and the formation of multicultural societies emphasize not only the need for interpreters but also the increasing requirement of interpreting into B language.

Interpreters are mostly advised to interpret into their mother tongues, namely, their A languages arguing that reformulation is easier in A language. In some international organizations, interpreting into A language is dominant and even considered as superior. In Joint Interpreting and Conference Service (abbreviated as SCIC) of the European Commission and the Directorate General for Interpretation of the European Parliament, Council of Europe, UN, NATO, interpreters are expected most of the time to do their job in their A languages. AIIC, the International Association of Conference Interpreters clearly states that conference interpreters should interpret only into their mother tongue which they have complete proficiency. However, the interpreting direction is not only related to comprehension and reformulation, and language proficiency, there are many factors that need to be considered while tackling the issue; especially the needs of the market.

Nowadays, there is an increased demand for retour interpreting in various parts of the world including Central and Eastern European countries where interpreting into B languages is dominant and a reality of the profession in the market (e.g., Dose 2017; Lim 2005; Szabari 2002; Chang and Wu, 2014; Donovan 2011). In countries such as Slovenia, Hungary, Finland, Denmark and Turkey where languages of limited diffusion are used, retour interpreting is very common. Realities of the market in Turkey and language-pair-specific factors require interpreters work in both directions, most of the time in English because the number of people who completely master Turkish as their B language is very limited (Temizöz, 2014). This also supports the views of Campbell (1998) stating that "in theory translating into native language may seem fine but in practice it may not be possible because translators into particular languages may not meet the demand in the market, thus translation into the second language may become more often". It should also be noted that English has become a lingua franca due to globalization and ever increasing contacts among countries, therefore translators are expected to have a working

knowledge of English, and translation into English as a second language has become a reality of the global village of our modern world (Snell-Hornby, 2000)

Directionality of interpreting is directly related to the quality of SI performances and strategy preferences of interpreters in terms of English-Turkish language pair since the direction of interpreting requires interpreters working between these languages to overcome different problems during SI process. Considering the nature of interpreting profession in Turkey, which necessitates the interpreters work in both directions in simultaneous interpreting (SI), it would be of much help to explore the effect of interpreting direction on quality of SI performances of student interpreters and possible impact of language direction on strategy use during simultaneous interpreting. Therefore, the present study aims to draw concrete and solid conclusions on the interaction between interpreting direction and quality and strategy use in SI based on an empirical method. It is believed that data gathered in the study regarding the effect of directionality in English-Turkish language pair on simultaneous interpreting performance could be of great importance to improve the content and pedagogy of interpreting courses at undergraduate university level with a special emphasis on strategy use in different interpreting directions which is tailored-made for market needs in Turkey.

2. Background

Simultaneous interpreting is "the art of re-expressing" a message in the SL in TL at the same time it is being delivered. It is a complex cognitive task and presents a high level of complexity (Fabbro & Gran, 1997). The output of the interpreter should be clear and easy to comprehend; so that the listener does not have to re-interpret what he or she hears through earphones (Namy, 1978). It is therefore the main responsibility of the interpreter to be accurate, understandable and unambiguous; so that the communication can be achieved without any misunderstanding. Simultaneous interpreting requires proficiency and mastery in both A and B languages of interpreters and there is a difference between comprehension and reformulation processes in A language and B language during simultaneous interpreting mainly resulting from differences in language proficiency and syntactic and semantic structures of the languages. Moreover, when it comes to interpreting between languages with inverse structures such as English and Turkish; the task may become harder, which may hinder the quality of the interpreting. English is a verb-middle language; whereas, Turkish is a verb-final language, which in fact may pose extra cognitive load for an interpreter working between English and Turkish. While interpreting into Turkish, comprehending in English can sometimes be problematic; thus, more effort can be exerted in this phase, but reformulating the message in Turkish make the interpreter feel much more comfortable and at ease while finding the equivalent structures. However, while interpreting into English, namely into B language, interpreters mostly wait longer to be able to hear or anticipate the verb of the sentence, which puts extra burden on working memory. While comprehending is easy in this direction, reformulation; that is, expressing the message in English, can make the interpreter pay much more attention to language use and uttering grammatically correct sentences.

Interpreters working between languages which differ from each other in terms of syntax need to employ various strategies to ease the SI task and decrease the cognitive load during the task. In the direction of English-Turkish, they pay attention to finding equivalent terms utilizing their world knowledge and context, and avoid following the syntax of English; otherwise, their interpreting may not sound natural even though they are using their mother tongue. In Turkish-English interpreting direction, interpreters mostly apply the strategy of anticipation in order not to wait the end of the sentence to be able to hear the verb, which helps interpreters to avoid salient pauses. However, use of strategy is a subject-

dependent issue; it depends on the topic of the speech, as well. In addition, directionality can be stated as an important factor in the strategy preferences of interpreters during a SI task. Therefore, while presenting the arguments in the debate of directionality in interpreting, it would be plausible to provide a general overview of simultaneous interpreting with regards to its cognitive dimension and the relation between directionality, and quality and strategy use in interpreting.

2.1. Cognitive dimension of simultaneous interpreting

In cognitive psychology, simultaneous interpreting (SI) is defined as a complex human information-processing activity composed of various interdependent skills of which the most striking one is the ability to listen to a speech in a SL and render it in the TL simultaneously (Lambert, 1992). In contrast to normal use of language, interpreters must both comprehend a speech and produce it in other language at the same time. SI is generally accepted as the mental process and communicative act of reproducing orally in a TL an utterance expressed in another language (Riccardi, 2002b). In SI, several tasks are performed concurrently, and they mostly overlap each other. Interpreters work at speech delivery rate, they interpret 100 to 200 words per minute on average and have only a few seconds at most to complete the processing of the input (Gile, 1995). The interpreter receives a part of the sentence that is called as propositional phrase, a chunk or a meaning unit, then s/he processes this propositional phrase and translates it, He/she begins to comprehend and analyze the next propositional phrase at the same time while rendering the propositional phrase (Padilla et al., 1995; Liu, 2008).

Difficulties encountered during a SI task may occur even when there is no visible difficulty stemming from the working conditions, stress, speaker, topic, etc. There occur many problems even if there is no significant problem, such as fast delivery, accent or complex syntactic structures because interpreters tend to work at levels of cognitive load close to saturation (Gile, 1999). Cognitive processes involved in SI can be considered as the main reasons of the difficulties occurring under such circumstances where there is no external distraction. On the basis of such considerations, Daniel Gile developed the Effort Model derived from two fundamental ideas: first one is that interpreting requires some mental "energy" that is available in limited supply; second is that interpreting consumes almost all of this mental energy sometimes more than is available resulting in performance deteriorations (see Gile, 1990, 1995, 1997, 1999). The Effort Model basically relies on operational constraints during a task and based on cognitive concepts, such as limited attentional resources, and correlation between task difficulty and task duration.

According to the Effort Model, SI process consists of the following efforts; namely listening and analysis effort (L), production effort (P) and short-term memory effort (M). In addition, a coordination effort (C) is needed since one, two or three of the efforts are employed simultaneously, and they need to be coordinated continuously for the sake of the quality of the interpreting. Since the available cognitive processing is limited, the sum of the capacity requirements must not exceed the available processing capacity. Due to various requirements depending on the incoming speech segments, processing capacity requirements of each effort can change over time during SI. For example; "the interpreter may try too hard to produce an elegant reformulation of segment A, and therefore not have enough capacity left to complete a listening task on an incoming segment B" (Gile, 1995). According to Gile (2005), production generally requires more attention than comprehension if it involves a deliberate effort to avoid linguistic interference from SL. Therefore, it may be assumed that it is better to work into one's A language. However, if comprehension is fundamental for transmission of content, it might not be wrong to argue

that interpreting from A language into B language may result in a more accurate performance than the other direction (Tommola & Heleva, 1998).

Most of the processing models proposed for SI do not take interpreting direction into consideration, whereas the effort model of Daniel Gile (1995, 1997) provides an opportunity why effects of language combinations may arise. It postulates that higher attentional requirement is needed when working in syntactically different languages and cognitive load seems to be the most important factor for performance differences in different directions (Gile, 1999). Syntactical and lexical differences between SL and TL constitute main potential risk for interpreters; especially when the languages in question have inverse structures. Whenever possible, interpreters should produce TL speech on the basis of the meaning, not the words of the SL speech (Gile, 1995). Gile identifies two groups of difficulties in SI processing deterioration (cited in Setton, 1999): (1) Overload due to high capacity-consuming features such as densely informative speeches, unfamiliar accents, unusual or ungrammatical linguistic structures, syntactic differences; head-final (Japanese, Turkish) and head-initial (English, French) languages. (2) Lapses of attention; short proper names or numbers are often missed by interpreters. In most cases, interpreters work near saturation level; they use their whole processing capacity. Increase in processing capacity requirements and mismanagement of cognitive resources can consequently result in the deterioration of the interpreter's performance. Therefore, the Effort Model can be considered as a useful tool for determining the conditions in which interpreters work near saturation level, when their performance deteriorates or in accounting for different kinds of errors or levels of quality in SI. It would also be reasonable to make use of the effort model while carrying out a study concerning directionality since it is one of the exemptions that deal with the effect of language direction on the concurrent components of SI stating that some languages could pose fewer or more processing-related problems in comprehension and production.

2.2. Directionality in simultaneous interpreting

The issue of directionality is one of the most controversial issues in translation and interpreting studies. The term "directionality" refers to whether translation or interpreting is delivered into one's "mother tongue", "language of habitual use", A language or first language or out of it. The terms "mother tongue," "language of habitual use," "native language," "foreign language" and "second language" are not unproblematic, as pointed out by various authors; they may be used interchangeably. In a detailed discussion in the 2002 Forum on Directionality in Translating and Interpreting, Kelly et al. (2003) stress the "ideological charge" many of these terms have. After defining all the pros and cons of different terms, the authors borrow the nomenclature of "A language" and "B language," used by the International Association of Conference Interpreters (AIIC) which is believed to be more neutral (as cited in Martin, 2005). Therefore, the terms "A language" and "B language" have been adopted in this study.

The debate on interpreting into B language can be traced back to different positions of researchers and practitioners in the "Paris School" and those in the "Soviet School". While researchers from the Paris school insisted only interpreting into A language, so that the highest quality could be reached, those from the Soviet School emphasized the importance of better and fully understanding of the content of the speech while interpreting into B language (Minns, 2002; Pöchhacker, 2002). The Western tradition of conference interpreting has favored SI from B or C languages into A language. Although ***retour interpreting***; namely, interpreting from A language into B language, is widely used on the local or private markets, it has not been accepted in international organizations. When favored "direct interpreting" is not available, the recourse is made to ***relay interpreting***; that is, indirect interpreting

in which interpreter relies on the output of another interpreter as the source of her or his interpreting. Especially for some UN and EU meetings, relay interpreting is highly likely to play a significant role as English being the lingua franca (Pöchhacker, 2004). In Central and Eastern Europe working into B language has always played a significant role in the interpretation practice, even it has become "dominant". It is clear that in Western European free markets interpreters whose A languages are German, English and French are mostly required to work into their B languages. Working into B language is considered an indispensable part of the daily work of professional interpreters (Szabari, 2002). Interpreting into B language is in demand in many markets, and it is performed by most of the interpreters especially in minor languages; it is also the common practice in Turkey and interpreting students are generally trained in both directions at universities.

It is a well-known fact that languages are not "isomorphic", they do not share the same lexical and structural patterns; there is no one-to-one correspondence since they differ from each other in terms of words, lexical elements, rules of grammar, stylistic rules, etc.; therefore, when it comes to translation or interpretation, there is no "automatic equivalence" between words in the source and target languages. Even though there may seem to be similarities between languages, they may have different uses and connotations (Gile, 1995). Considering the **verb-final** (Japanese, German, Russian, Chinese and Turkish) and **verb-middle** languages (English), the differences are easily recognizable since most of the time the inverse structure of the languages affect the interpreting performance and the quality of SI. What is important in SI between the structurally inverse languages is the order in which concepts are expressed in a sentence, and the semantic and syntactic relations among them (Earls, Doğan, Dabutaite, & Has, 2009). For example, syntactic differences between SL and TL force interpreters to wait before formulating their target utterance; thus, this may increase the load on the short-term memory effort (Christoffels, 2004). Therefore, the impact of language-specific features on interpreting performance should be clearly understood and elaborated by means of empirical studies.

In terms of directionality, it is possible to find different approaches for studying the topic ranging from survey-based studies tackling the interpreters' preferences of direction (e.g. Donovan 2004; Pavlovic, 2007; Opdenhoff, 2011), listeners' perceptions of interpreting direction (e.g. Kurz, 1993; Donovan 2004), the relation between cognitive load and directionality (e.g. Kurz, 1994; Hyönä et al., 1995; Temizöz, 2014) and the effect of directionality on interpreting performance (e.g. Chang, 2005; Tommola & Laakso, 1997; Tommola & Helevä, 1998) to the relation between directionality and strategy use in simultaneous interpreting (e.g. Bartlomiejczyk, 2006; Gumul, 2006; Wu & Liao, 2018).

Donovan (2002) carried out a survey of users regarding their expectation from interpreters and their needs. When preference was expressed, no correlation with directionality was observed, however some participants stated that they would prefer SI into B language and content and poor expression or accents were not a problem for them. Similarly, Bartlomiejczyk (2004) conducted a survey targeting 53 students and 40 professionals. 82% of the participants in the survey considered SI into A language better in terms of quality and preferred interpreting into A language. Opdenhoff (2011) carried out a survey-based study including 2129 conference interpreters from 94 countries. The results of the survey revealed that the majority of professional interpreters considered their performance and quality to be better in B language-A language direction; however almost the same percentage stated that there was no significant difference between the two directions. On the other hand, differences were also observed between certain language combinations. It has been concluded that the self-evaluation of professional interpreters mainly depends on personal features, such as whether they were trained in both directions or working practice. As opposed to these survey results, other survey-based studies show a preference

of A-B interpreting direction or indifference towards interpreting direction. Pavlovic (2007) conducted a survey with 61 professionals from Croatia. The results of the survey showed that only %7 of the respondents preferred SI into A language and %45 of the participants stated that they were more satisfied when working from A language into B language.

In addition to survey-based studies, there are a number of valuable empirical studies carried out in order to discuss directionality and SI. For example, Barik (1973) studied directionality by gathering data from three professional interpreters and three inexperienced participants. The number of omissions and error was the same in both directions for the professionals; on the other hand inexperienced participants showed better interpreting performance from A to B than vice versa. When compared in terms of the SI performances, less-qualified interpreters have better performances when interpreting from dominant into weaker language than when vice versa. However, their interpretations are more literal when interpreting from dominant into weaker language (Barik, 1994).

In her article "A look into the 'black box'-EEG probability mapping during mental simultaneous interpreting", Kurz (1994) reported that there are EEG differences between SI into L1 (German) and L2 (English); local coherences in the beta band were higher for L2 than for L1. The values of interhemispheric coherence were higher for L2 than for L1. This can be interpreted an indication of higher mental effort during SI into L2.

Tommola and Laakso (1997) conducted a study including eight Finnish/English student interpreters in terms of directionality and the pausal segmentation of the SL speech. The study showed that the propositional accuracy scores of the students were better when the speech was segmented; however no significant difference was observed in terms of directionality. Furthermore, Tommola and Heleva (1998) carried out a study in order to measure the effect of directionality (English-Finnish or Finnish-English) and source text complexity on the performance of 12 trainee interpreters. Their outputs were analyzed based on propositional accuracy score. A statistically significant effect of language direction could not be found however interpreting from A to B appeared to be slightly advantageous especially for trainee interpreters since they fully and easily understand the speech.

In their study, Kees de Bot, et all (2000) tried to show the relation between language asymmetry and interpreting direction. The task included word interpreting in two directions: Dutch-French and French-Dutch. They have found that it takes shorter when interpreting from the weaker language into the dominant one, namely from B language into A language. The fact that interpreting performance is better when interpreting from dominant language into weaker language than the other direction is mainly related with the experience of the interpreter and choice of strategies available for the interpreter. For German-English combination, Kurz and Farber's study (2003) revealed that students had better performances in terms of completeness and accuracy while interpreting into B language.

Lee Yun-Hyang (2003) studied the error frequency of nine Korean/English student interpreters while interpreting in different directions. The study revealed that student interpreters showed a tendency to make more meaning errors when interpreting into A language and more language use (accent, prosody) errors when interpreting into B language. Chia-chien Chang (2005) explored the effect of directionality on professional interpreters' SI performances and strategy use using speeches; one is slow, the other is fast. Propositional and error analysis were applied to analyze the outputs of the interpreters. It revealed that professional interpreters seemed to have fewer propositions accurate while interpreting from A language into B language. However, their interpreting performance was almost parallel in different

directions suggesting that language proficiency and the speed of the delivery may affect the performance. Therefore, there is a need for more studies in order to have a detailed and comprehensive explanation for the issue of directionality. Different language combinations need to be studied within the framework of different methods. Exploring the effect of directionality on the interpreting performances and strategy preferences of student interpreters by combining two different assessment methods, which are interpreting quality analysis and propositional analysis will inject a breath of fresh air into SI field.

2.3. Strategy use in simultaneous interpreting

Interpreters are constrained by both the complex nature of SI and the conditions in which it takes place. Mode and tempo of the delivery, intensity of the message, memory limitations can all affect their performances (Kopczynnski, 1996); therefore, they deploy different strategies or tactics to confront the challenges imposed by such factors. Different processing strategies and coping tactics may be used by interpreters while dealing with various problems arising due to processing capacity limitations. Difficulties affect not only comprehension but also production operations (Gile, 1995) and if interpreters are aware of the cause of the problems, their strategy preferences differ accordingly.

Interpreting can be defined as "strategic discourse processing". If a strategy is chosen by the interpreter and does not prove to be satisfactory, another strategy which may yield better results can be used. One of the significant points, which needs to be emphasized is that strategic processes should be automatized and turn into a routine decision process, so the interpreter could have enough capacity and attention to solve complex problems (Kohn & Kalina, 1996). Strategies are "highly flexible instruments" (Kalina, 1991) and may save live when used efficiently under very difficult conditions. Interpreters make use of various comprehension, prevention and reformulation strategies. However, their preferences of strategies change according to the interpreting direction, even according to language pair they work in, their level of proficiency or text difficulty (Chang, 2005). For some specific problems such as syntactic ones, certain strategies need to be practiced and internalized, such as macroprocessing, segmentation, using pat phrases, anticipation and stalling by using neutral material (Doğan, 2009a).

A number of studies were carried out to analyze the strategies used by interpreters. For example, Janis (2002) conducted a study involving Finnish/Russian student interpreters and revealed that students' strategies changed according to SI direction. When interpreting from B language to A language, they appeared to use a wide range of resources for production of the output; whereas, they used more compression and generalization while interpreting from A language to B language. Donato (2003) studied the strategies adopted by student interpreters in SI between the English-Italian and the German-Italian language pairs. The results of the study revealed that certain language-pair specific strategies were utilized by the students. Anticipation, time-lag, morphosyntactic transformations and transcoding seemed to differ between English-Italian group and the German-Italian group. For example, anticipation was one of the mostly used strategies by the German-Italian group as they had to cope with the verb-final syntax. In another case, Dawrant (1996) studied English-Chinese language pair and found that interpreters mostly made use of certain strategies such as waiting, segmentation, anticipation in order to overcome syntactic differences between the two languages.

Furthermore, Kurz and Farber (2003) have shown that specific language pairs may impose challenges in interpreting performances while interpreting from A language into B and vice versa. Considering German and English (B language) language pair, it was found that interpreters used anticipation more often while interpreting into B language resulting mainly from the syntactic features of two languages

in question. Interpreting from a subject-object-verb language into a subject-verb-object language may necessitate such use of strategy, which suggests that Turkish-English pair may present similar trends in terms of performance and strategy use during interpreting.

Considering Turkish-English language pair, Turkish as a head-final language and English as a head-initial language, specific strategies are required due to the inverse structure of the languages. Apart from general strategies that are available for interpreters to apply, specific emphasis should be made to several strategies for coping with syntactic challenges; such as, anticipation, macroprocessing, sentence division and syntactic restructuring (Earls, Doğan, Dabutaite, Has, 2009). Such studies investigating both directionality and strategy use clearly demonstrate the close link between the two, arguing the efficient training of interpreting students focusing on the importance of strategy use in simultaneous interpreting.

3. Method

3.1. Participants

A total of 15 interpreting students, 11 women and 4 men, were selected from the population to investigate the relationship between directionality and simultaneous interpreting. The participation was voluntary without any payment or extra points for any course in their curriculum and the informed consent forms were signed by the participants. The participants of the study were 4th year students enrolled in the Interpreting Group of English Division of the Department of Translation and Interpretation. Due to a technical problem during recording, one subject's performance could not be evaluated; therefore, 14 subjects' SI performances were taken into consideration while analyzing the interpreting outputs.

All participants were assumed to have more or less similar academic backgrounds, and necessary knowledge and skills for SI since they have taken necessary courses regarding interpreting in their Departments and found eligible in the Aptitude Test of their Departments. All 14 subjects considered Turkish as their A and English as their B language. They stated that during their training at their departments, they all practiced SI in both directions. A detailed language background questionnaire provided data on the subjects' proficiency levels. On a scale from 1 (not at all proficient) to 5 (totally proficient), subjects rated their speaking in Turkish at 4.57 on average, in English at 3.85 on average, and on a scale from 1 (not at all proficient) to 5 (totally proficient), subjects rated their listening in Turkish at 4.70 on average, in English at 4.10 on average.

3.2. Materials

Data collection instruments of this study were comprised of **(1)** speeches to be interpreted and **(2)** questionnaires. SI tasks in both directions were administered to measure the SI performances of the subjects, and to obtain data on strategy preferences of the student interpreters. Questionnaires were carried out firstly for self-monitoring and self-evaluation purposes, and secondly to determine the general tendencies and opinions of the subjects as to the strategy preferences and directionality in simultaneous interpreting.

3.2.1. Simultaneous interpreting speeches

In addition to two speeches, one in English and the other in Turkish for the SI tasks, warm-up speeches were prepared for the subjects to interpret prior to SI task. The speeches used in this study were carefully

selected and modified to meet the purpose of the study. Both speeches had been previously presented in the conference settings by two important people but were exposed to some changes in line with the aims of the study. Each participant was asked to interpret the warm-up speeches so that they could get used to the SI laboratory conditions and use of the SI equipment. The English warm-up speech was a statement delivered by the Minister of Foreign Affairs of the Republic of Turkey, Mr. Davutoğlu at the High Level Segment of the Human Rights Council 16th Session. Only a part of the speech, lasting approximately 1.5 minutes, was recorded as a warm-up speech. The Turkish warm-up speech was again a statement delivered by the Minister of Foreign Affairs of the Republic of Turkey, Mr. Davutoğlu at the Inauguration of the 3rd Ambassadors Conference. Only a segment of the speech, lasting about 1.5 minutes, was presented to the participants for interpretation.

Both Turkish and English speeches used in the study as a measurement tool were carefully chosen since it is of significant importance that the topics should be current and well-known issues. The speeches of the well-known figures, the participants were more accustomed to, were deliberately chosen to eliminate the effect of undesired variables, likely to occur. Therefore, former President of the USA, Barack Obama's address to the United Nations General Assembly on 23rd September, 2010 was found appropriate for the 1st SI Task. The speech was about recent incidents in the world such as Wall Street economic crisis, Pakistan and Israel issue, and fight against terrorism. The speech was shortened in a coherent way and some parts of the speech were modified in order to make it clearer and easy-to-follow during interpreting. The Turkish speech used for the 2nd SI task was a speech delivered by Mr. Babacan, who was then the Minister of Foreign Affairs of the Republic of Turkey at United Nations Security Council. The speech was mainly about recent developments in Gazze Strip, the role of the UN in the peacekeeping efforts. Both of the speeches last approximately 7.30 minutes. The speeches used in the study included some difficult parts that necessitated conscious use of strategies. Although audiotape versions of the both texts were available on the internet, they both were recorded again by the researcher in a soundproof environment since the texts were shortened and modified.

The content validity of the English and Turkish speeches to be used for measuring the performances of the subjects was ensured on the basis of the opinions of two experts in the field of SI interpreting who are both professional conference interpreters and lecturers of interpreting courses at universities, and who have expertise in the field of interpreter training. Both speeches were revised and modified according to the assessments and opinions of the experts so as to make them more proper for the interpreting skills and levels of the student interpreters. The speeches were shortened to enable the subjects to recall their SI performance through their metacognitive processes such as self-monitoring and self-assessment (see Doğan, 2009b). After the necessary modifications were made, the texts were reviewed by the experts once more. They found that both texts sounded natural and coherent, and appropriate for the study.

3.2.2. Questionnaires

Three different questionnaires were administered to all participants during the study:

(1) Language Background Questionnaire,

(2) Strategy-use Questionnaire,

(3) Interpreting Performance Self- Assessment Questionnaire.

3.3.2.1. Language background questionnaire

A language background questionnaire modified from Golato's study (1998) including 5-Likert scale and open-ended questions was administered prior to the SI tasks to get basic information about their proficiency levels of A and B languages. The questionnaire included questions regarding when and how they had begun learning foreign languages, how many years they had studied English or whether they had lived in an English speaking country. In addition, the participants were asked to rate their levels of oral proficiency, command of grammar and vocabulary, pronunciation, listening and speaking skills in both Turkish and English on a scale from 1 to 5. Participants were also asked to state which direction they preferred generally for SI. Participants' additional comments about language use and proficiency provided in the questionnaire were utilized during the analysis of their performances.

3.3.2.2. Strategy-use questionnaire

The questionnaire concerning strategy-use had open-ended questions related to the strategy preferences of the participants. Only one question was not open ended; the participants were asked to rate their distance from the speaker while interpreting on a scale from 1 (too close) to 5 (very distant); in other words, their Ear-Voice-Span (EVS) during interpreting was asked to be rated. Participants were also asked to provide information on the problems they had encountered during the SI task, and on how they managed to overcome the problems. They were asked to elaborate on their strategy preferences during comprehension and reformulation phases of the SI task. The participants were also inquired about how they coped with long sentences full of clauses, and unknown words during interpreting.

3.3.2.3. Interpreting performance questionnaire

The interpreting performance questionnaire which was modified from Chang's study (2005) was used to have some clue regarding metacognitive processes of student interpreters while carrying out SI in different directions. The questionnaire was administered after both SI tasks were completed since they were asked to compare their interpreting performances in both directions while answering the questions. The questionnaire included 5-Likert type questions on familiarity, difficulty, speed of both speeches, and their levels of alertness and nervousness during the SI tasks. The subjects were asked to rate their own performances on a scale from 1 (not satisfactory) to 5 (very satisfactory). The results of the questionnaires were used for analyzing SI processes and performances of the participants in a qualitative manner.

3.3. Procedure

This study investigating the effect of directionality in simultaneous interpreting was carried out both in quantitative and qualitative method. A briefing regarding the aim and nature of the study was provided to the students from both Hacettepe and Atılım Universities, who were asked whether they would be eager to involve in such a study. They were also asked whether they had the necessary information on strategies used during interpreting. A refreshing course on strategy use was provided for the students who wished to participate in the study (n=15) in order to make them more conscious about strategies available for them to use when they encounter problems or difficulties during a SI task. The date to administer the SI tasks was scheduled to fit the available time of the participants.

Two SI tasks were employed for the purposes of the study: SI into Turkish and SI into English. Each participant was asked to fill in a questionnaire regarding their language background before starting the

two SI tasks. Prior to each SI task, subjects were asked to interpret a warm-up speech then the two SI tasks were carried out consecutively. First of all, participants were asked to interpret an English speech into Turkish, and then they filled in the questionnaire regarding their strategy use during interpretation. After a short break, they interpreted a Turkish speech into English, which was followed by the strategy use questionnaire again. The interpreting outputs of the subjects in both SI tasks were recorded via voice recorders. After they interpreted the two speeches, and filled in the strategy use questionnaire, they were asked to evaluate and compare their interpreting performances, and to provide insight into their metacognitive processes during the two SI tasks using the interpreting performance questionnaire. In the interpreting performance questionnaire, they were asked to compare their interpreting performances in the different directions in terms of performance quality, alertness and nervousness during the SI tasks. While the subjects were filling in the questionnaires related to strategy preferences and interpreting performances, the scripts and audio-recordings of both speeches and the interpreting outputs of the subjects were provided to help the subjects recall what they were thinking during the interpreting task, and how they handled the problems they encountered while interpreting. Participants also specified the strategies they employed during the SI tasks on the source texts provided for them. They were precisely inquired about their self-assessment of the whole process. They were asked to elaborate their answer as much as possible. Necessary notes regarding oral comments of the subjects while filling in the questionnaires of the short talks after the SI tasks were also taken to be utilized in the discussion of the results.

Two external raters were asked to evaluate the performances of the subjects on the basis of a rating scale for the assessment of interpreting performance developed by AIIC in the study of workload in SI (2002). The rating scale consists of three bands: **(1)** meaning, **(2)** TL use and **(3)** delivery. At the same time, interpreting outputs of the subjects were scored based on the propositional analysis of content accuracy; thus, the interpreting performances of participants were evaluated in two dimensions; one focusing on overall quality assessment of simultaneous interpreting, the other comparing the source speech and interpreting output in terms of accurately interpreted propositions.

3.4. Assessment of simultaneous interpreting performance

Two different analyses were carried out on interpreting outputs of each participant as explained before. Data on interpreting processes of participants were gathered from the questionnaires and comments of subjects as well as interpreting outputs. Statistical Package for Social Sciences **(SPSS)** 17.0 was used to analyze the collected data. ***"Pearson Correlation"*** was applied to measure the correlation between the raters, and ***"Paired sample t-test"*** was administered on the task scores of the participants for calculating the mean, the standard deviation and "p" values in order to be able to compare in which direction; from B language into A (B>A) or from A language into B (A>B) interpreting performances of students interpreters were better in terms of quality and accuracy of semantic content so that a concrete conclusion could be drawn as per the effect of directionality on SI performance.

3.5.1. Rating-scale for the assessment of the quality of the interpreting performances

The rating scale used in the study was primarily used in the AIIC's study of work load in interpreting (2002). The criteria for the evaluation of interpreting performance was revised and adopted in the present study. The rating scale, used for the assessment of the quality of the interpreting outputs of the subjects, was as follows:

1. Meaning ((1) Error rate, (2) Omission rate, (3) Addition rate)

2. Target Language (TL) Use ((1) Proportion of grammatical mistakes, (2) Word choice and phrasing)

3. Delivery

Two external raters who were both conference interpreters (TKTD members) and interpreter trainers for more than ten years were asked to evaluate the interpreting performances of the participants on a scale from 1 (very unsatisfactory) to 5 (very satisfactory) in terms of abovementioned quality criteria. Maximum score that could be acquired from a rater was 30. Each rater assessed participants' interpreting performances in both directions. The raters also provided a score for general evaluation which was not included in the total score as well as additional notes regarding the interpreting performance of the subjects. After the analysis of Pearson Correlation between the raters using SPSS 17.0, two external raters were found highly consistent in their scoring of quality of performances. This is a clear indication that the measure used in the evaluation of interpreting performance was objective and the ratings of the raters were reliable. Intra- and inter-rater correlations of the raters were measured on the basis of the scores given to each criterion.

For rater 1, intra-rater correlation for each criterion in the rating scale (SI from B into A) was found to be highly correlated. Scores given to the criterion meaning by rater 1 were highly correlated with TL use (r=.89), delivery (r=.79) scores and total score (r=.98); TL use was highly correlated with meaning (r=.89), delivery (r=.69) and total score (r=.93); delivery was highly correlated with meaning (r=.79), TL use (r=.69) and total score (r=.85), and total score was highly correlated with meaning (r=.98), TL use (r=.93) and delivery (r=.85). In terms of intra-rater correlation of rater 1 for SI from A into B, meaning was highly correlated with TL use (r=.87), delivery (r=.90) and total score (r=.97); TL use was highly correlated with meaning (r=.87), delivery (r=.96) and total score (r=.96); delivery was highly correlated with meaning (r=.90), TL use (r=.96) and total score (r=.97), and total score was highly correlated with meaning (r=.97), TL use (r=.96) and delivery (r=.97). ($r \geq .50$ is considered as high correlation.).

For rater 2, intra-rater correlation values were considered highly correlated between the assessment criteria. For SI from B into A, meaning was highly correlated with TL use (r=.75), delivery (r=.71) and total score (r=.95); TL use was highly correlated with meaning (r=.75), delivery (r=.80) and total score (r=.90); delivery was highly correlated with meaning (r=.71), TL use (r=.80) and total score (r=.88), and total score was highly correlated with meaning (r=.95), TL use (r=.90) and delivery (r=.88). For SI from A into B, meaning was highly correlated with TL use (r=.75), delivery (r=.71) and total score (r=.95); TL use was highly correlated with meaning (r=.75), delivery (r=.80) and total score (r=.90); delivery was highly correlated with meaning (r=.71), TL use (r=.80) and total score (r=.88), and total score was highly correlated with meaning (r=.95), TL use (r=.90) and delivery (r=.88). These intra-rater correlation values indicate that the rater 1 and rater 2 individually were highly consistent and reliable in their own evaluations of the quality of the interpreting performance of each subject.

Inter-rater correlations between the raters so as to scores of the participants' interpreting outputs on the basis of the abovementioned assessment criteria in terms of SI from B into A, were found positively and significantly correlated. It can be stated that the scores given for the criterion "TL use" by the raters were positively and marginally significant ($r = .53$, $p < .05$). There was a positive and significant correlation between the scores given for the criterion "delivery" by rater 1 and rater 2 ($r = 55$, $p < .05$). Scores given for the criteria "meaning" and "delivery" by the rater 1 were positively and significantly

correlated with the scores of the rater 2 for the same criteria (r =.57; r =.54, respectively, p<.01). Total scores of the rater 1 for SI quality from B into A were positively and significantly correlated with the total scores of the rater 2 (r =.62, p<.01). In terms of SI from A into B, there were positive and significant correlations between scores of rater 1 and rater 2 provided for the criteria "meaning", "TL use" and "delivery" (*r* =.71; *r* =.67, p <.01; *r* =.55, *p* <.05 respectively). Total scores of the rater 1 for SI quality from A into B were positively and significantly correlated with the total scores of the rater 2 (r =.73, p<.01). Considering positive and significant inter-rater correlations, it can be that the two raters were in agreement while evaluating the quality of SI performances of the participants while interpreting from B language into A language and from A language into B language.

3.5.2. Propositional analysis for the accuracy of the semantic content

A propositional analysis was carried out to assess the interpreting performance of participants in terms of semantic content accuracy. Propositional analysis is a widely used method by researchers to measure the accuracy of interpreting outputs. As stated by Hurford and Heasley (1987), proposition is a part of the meaning of a sentence or an object of the thought. Propositions can be regarded as abstract semantic entities which are unlike sentences language-independent. In propositional analysis method, sentences are divided into propositions regardless of grammatical structure of the sentences. On the basis of the guidelines suggested by Bovair and Kieras (1985), Turkish and English speeches used in the SI tasks of the study were divided into propositions as follows:

Original speech segment: *We are reforming our system of global finance, beginning with Wall Street reform here at home, so that a crisis like this never happens again.*

A: We are reforming our system of global finance, beginning with Wall Street reform here at home
B: a crisis like this never happens again
A+B => so that Propositional Description:

P1	(reform, we, system)
P2	(mod, system, finance, global)
P3	(mod P1 begin, reform, we)
P4	(mod reform, Wall Street)
P5	(mod P4, here)
P6	(mod P4, at home)
P7	(so that)
P8	(happen, a crisis)
P9	(mod like this, a crisis)
P10	(mod P8 never)
P11	(mod P8 again)

Propositional analysis of the speeches were carried out by the researcher and second opinion was received from an expert in the field of interpreting studies. In some sentences of the speeches, two propositions were combined (such as combination of P5 and P6) while scoring the interpreting outputs to make the scoring more efficient. As a result, English speech had 224 propositions and Turkish speech had 234 propositions. Interpreting outputs were directly scored on the basis of propositionalized source texts. For each proposition in source speech, the interpreted version was measured using a scale of similarity by giving a point for each corresponding proposition in the interpreting outputs as follows:

0 point: absent/omitted/erroneous proposition

1 point: partially accurately rendered / similar proposition

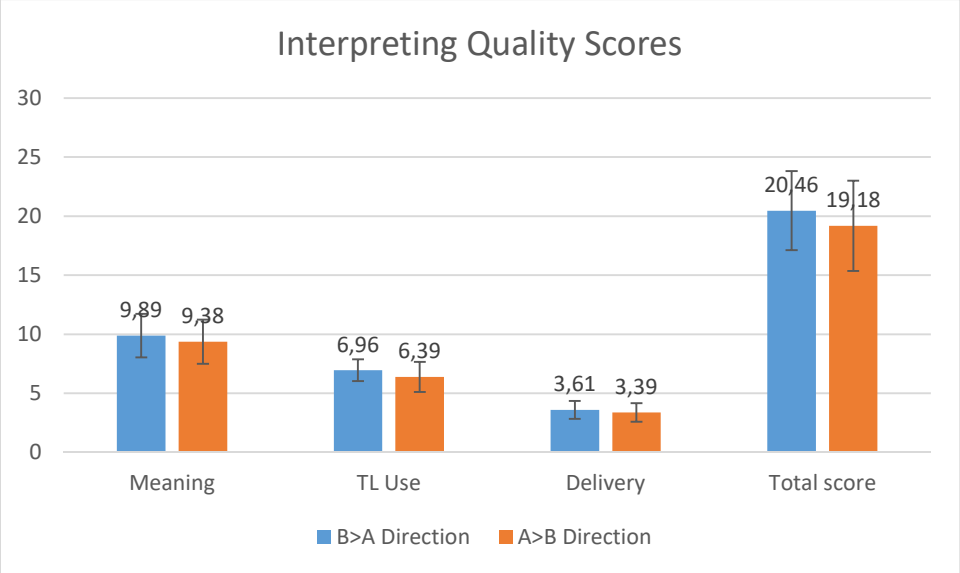
2 points: perfectly interpreted / identical proposition

4. Results

4.1. Simultaneous interpreting performances

A dependent t-test (paired-samples t-test) was conducted to compare the scores given by the two raters for the quality of SI tasks in both directions; namely from B language (English) into A language (Turkish) and vice versa in order to understand whether there was a statistically significant difference between student interpreters' performances in different SI directions.

Chart 1: Interpreting quality scores in B into A and A into B directions

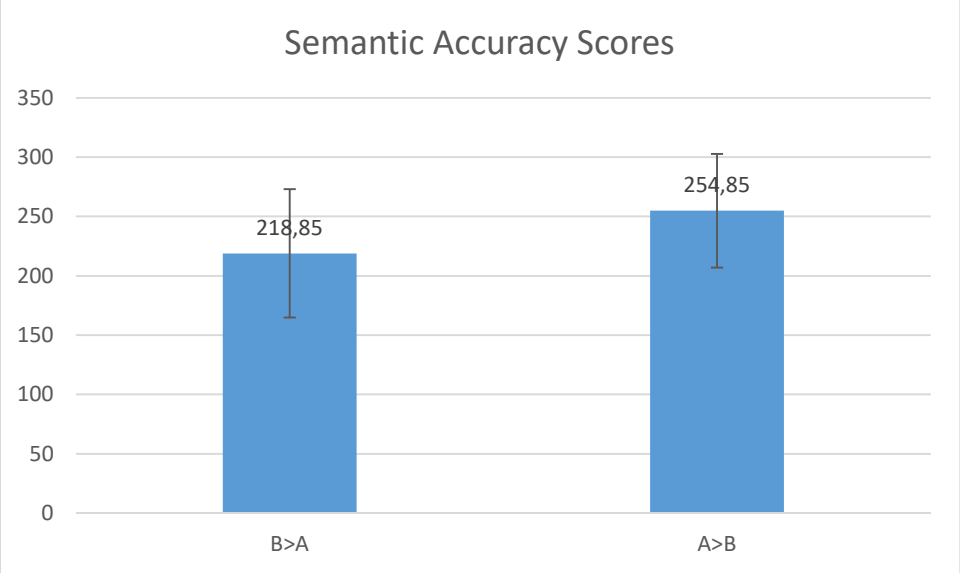


The p values calculated by means of paired sample t-test revealed that there were significant differences among the categories of the criterion *TL use* and total scores between B>A and A>B directions, since the p values of *TL use* (p = 0.023) and *total score* (p = 0.030) were lower than 0.05, which is considered a significant difference. The standard deviation value is of significant importance while discussing the results. It is clearly seen from the chart that the standard deviations were low, which demonstrate that the performances were not starkly differing from one subject to another within one interpreting direction; namely while interpreting from English into Turkish or from Turkish into English. As illustrated in Chart 1, *TL use* showed significant difference in terms of directionality $t_{(13)} = -2.58$, $p<.05$, that is, subjects gained higher scores for the criterion *TL use* for SI task into A language (M = 6.96, SD = .91) than for SI task into B language (M= 6.39, SD = 1.27). Total scores showed significant differences in terms of directionality $t_{(13)} = -2.43$, $p <.05$, that is, subjects' total scores were higher for B>A SI task (M = 20.46, SD = 3.35) than for A>B SI task (M = 19.18, SD = 3.83).

The analysis performed on the scores of the subjects in terms of quality of their interpreting outputs showed a higher mean value and a significant difference in favor of the B>A direction. Although no significant difference was found between the meaning and delivery scores of the subjects, their scores

for TL use showed a statistically significant difference and their total scores indicated a significant difference in the favor of the B>A direction.

Chart 2: Semantic accuracy scores based on propositional analysis in terms of directionality



In terms of semantic accuracy scores measured by propositional analysis method, a statistically significant difference was found between the performances of the subjects in terms of interpreting directions (p = 0.000, p value lower than 0.001 is considered as significant difference). The propositional accuracy scores of the subjects showed significant difference in terms of directionality $t_{(13)} = -5.54$, $p < .001$; that is the subjects' propositional accuracy scores were higher when interpreting from Turkish into English (M= 254.85, SD= 47.93) than when interpreting from English into Turkish (M= 218.85, SD= 54.13).

Since all participants reported that Turkish is their mother tongue, it can be stated that when participants understood the message better, they rendered more accurate propositions based on the propositional accuracy scores. It is worth to note that there is strong relation between comprehension and proposition rendition. It should be noted when the text is understood thoroughly, the number of accurately interpreted propositions increases. The results of the propositional analysis also support the results of the studies of Barik (1973) and Tommola and Heleva (1998) which show better interpreting performance when interpreting from dominant language into weak language.

4.2. Directionality and strategy use

A comprehensive questionnaire and self-strategy use reports were utilized in order to find out whether there is an effect of directionality on strategy preferences of students interpreters; whether student interpreters favor one strategy over another when interpreting in different directions. Questionnaires related to strategy use and personal evaluations of the interpreting process were conducted after each SI task in order to find out whether there is such a difference in terms of strategy use and metacognitive processes of student interpreters while interpreting in different directions,. The data gathered from the questionnaires and verbal feedbacks of participants while they were filling out the questionnaires were

useful to have an insight into thinking process of the participants during the tasks at both cognitive and metacognitive levels.

When participants were asked in which part of SI task, namely comprehension or reformulation phase of SI they had more problems, all participants stated that they had no problem in comprehension while interpreting into English; whereas, they stated that they encountered difficulties in reformulation because of not being able to anticipate correctly in every sentence. They also emphasized that phrases such as "Orta Doğu Dörtlüsü, Annapolis Ortak Anlayışı" caused most of the subjects to lose time while trying to find their equivalents. The participants specifically expressed that they used segmentation and macroprocessing most of the time while interpreting into English. Uttering complete sentences seems to be the main concern of the participants while interpreting into English; therefore, dividing the long sentences into meaningful segments must have seemed very reasonable for them.

Self-reports of the participants in the form of questionnaires conducted after each task were analyzed carefully and in a qualitative manner to collect data regarding comprehension and reformulation problems and strategies and self-monitoring and self-evaluation. Based on the remarks of the participants, it seems that they used a variety of strategies to solve their problems during comprehension or reformulation part. It is also interesting that the same passages of a speech were stated as problematic parts by most of the participants; however, the strategy used to solve the problem differed from one participant to another. The data gathered from the questionnaires show that some strategies were used throughout the interpreting process as a general approach but some strategies were applied to tackle specific problems. The strategies applied by the participants are presented below based on the remarks of the subjects:

> **Anticipation:** Anticipation can be regarded as one of the important strategies for interpreters especially working with structurally inverse languages such as Turkish and English. Anticipation can be defined as predicting and expressing a unit of meaning before it is heard. As Gile (1995) defines, anticipation should not be defined as prediction of exact words of the speaker, but as some knowledge on the speaker's way of saying in a particular way. Gile (1995) mentions two types of anticipation; (1) linguistic and (2) extralinguistic anticipation. In every language, words follow each other based on rules, for example in English the probability that an article will be followed by a noun is high but it is low that it will be followed another article. Being aware of such rules helps to have clear transition from one speech segment to another; thus reduces processing capacity. Extralinguistic anticipation is on the other hand based on good knowledge of the topic, conference situation and the speaker; thus anticipation can be made possible for example with some knowledge of the speaker's speaking in a particular context. As indicated by the study of Wills (1978), interpreting is easier between languages with similar syntax, on the other hand when it comes to structurally different languages interpreting requires various strategies, including anticipation to cope with the problems. From the remarks of the participants, it was observed that they tried to apply anticipation especially when interpreting into English, since they need to wait longer for the verb compared to when interpreting into Turkish. Below are some examples of use of anticipation with the comments of relevant participant:

I was familiar with the topic of the speech since Obama was talking about some well-known events such as 9/11 attacks and financial crisis on Wall Street; therefore I tried to guess the ends of the sentences in some cases. When I heard "nearly two years after…" I predicted that he would continue with "election as the President"; thus I started my sentence as "Bildiğiniz gibi ABD Başkanı seçilmemin ardından iki yıl geçti ve…" (Subject 11, English Speech)

When I heard "Bu amaçla Başbakanımız geçen yıl Kasım ayında…" I knew that he would talk about "the visits" so I began my sentence as "Our Prime Minister had visited some countries in the region." (Subject 12, Turkish Speech)

During interpreting, I mostly used anticipation but in one case I anticipated the following part of the segment wrong then I corrected my interpretation."Bugün Gazze'ye yönelik saldırıların başlamasının on birinci, kara saldırısının başlamasının ise ondördüncü günüdür." I interpreted this sentence as "Today is the eleventh year sorry day of the attacks on Gazze and fourth day of ground attacks." (Subject 1, Turkish Speech)

It should be noted that anticipation was often stated as a general strategy that participants tried to use during the whole SI task in both directions.

- **Macroprocessing:** This strategy of message processing can be defined as "synthesis" (Sunnari, 1995) as opposed to "saying it all" (Viaggio, 1991), or "macroprocessing" as opposed to "microprocessing" (Kintsch and Van Dijk, 1978). This strategy is mostly used as a form of either generalization or simplification. *Generalization* means replacing a segment of the speech with a more general speech segment; *simplification* refers to lexical or stylistic simplification of the message. The subjects in the present study appeared to tend to generalize or provide the gist of the message when they encountered problems. Two examples below can be good examples of macroprocessing:

ST: We meet within a city that for centuries has welcomed people from across the globe. This city demonstrates that individuals of every color, faith and station can come together to pursue opportunity, build a community and live in harmony.

TT: Yüzyıllar boyunca dünyanın etrafındaki insanları misafir etmiş bir şehirde gerçekleştiriyoruz bu toplantıyı ve bu şehir fırsatlar peşinde koşmak, topluluklar oluşturmak ve uyum içinde yaşamak için inanılmaz uygun. (Subject 9)

TT: Dünyanın her yerinden insanlar bu şehirde bir araya gelmiştir. Bu şehir, dünyanın her yerinden insanların yeni olasılıklar için bir topluluk ortaya çıkarabilmesi için bir örnek teşkil edebilir. (Subject 1)

The sentence "Men, women and children have been murdered by extremists from ***Casablanca to London; from Jalalabad to Jakarta***." was simplified by almost all the subjects. The part in bold italics was interpreted as "*in different parts of the world*" or "*in various places*". The reason for simplification is likely related with the fact that some subjects had not heard the names "Jalalabad" and "Jakarta" before; therefore, to be on safe side they may have preferred this strategy. It is also interesting that even though Casablanca was interpreted correctly by the subjects, Calalabad and Jakarta were omitted since a few of the subjects interpreted as "*Kazablanka'dan Londra'ya ve pek çok diğer yerde*".

I heard "gıda ve tıbbi malzeme dahil tüm temel ihtiyaç maddeleri" I knew I could interpret them but at the moment I found it difficult to find the correct terms for "gıda" and "tıbbi"; therefore I said "main requirements" in order not to waste time and to be able to catch the following segment. (Subject 13, Turkish Speech)

"Başbakanımız geçen yıl Kasım ayında Mısır, Ürdün, Suriye ve Suudi Arabistan'ı ziyaret etmiştir." When I heard this sentence first I tried to take notes of the names of the countries but I could not catch up so I generalized as "some Arab countries." (Subject, 11, Turkish Speech)

- **Segmentation:** In the cases of interpreting when SL and TL are syntactically very different, with embedded structures, long and unclear sentences, interpreters may prefer to reformulate the segment of the speech earlier than they normally do. This may reduce the overload on the memory; thus ease the reformulation phase. Segmentation can save short-terms memory capacity requirement, but uttering many short sentences instead of one may increase the processing capacity

requirements in the production effort (Gile, 1995). This strategy may also be referred as "chunking", (Kirchhoff, 1976; Chernov, 2004) "sentence division" (Earls et all, 2009) "saucissonnage" (Ilg, 1978) or "the salami technique" (Jones, 1998). Interpreters make use of this strategy a lot especially when they are faced with long, embedded sentences consisting of more than one clause. It enables the interpreter to make clearer and complete sentences; thus, make the interpreting output easy to comprehend; at the same time it decreases the short-term memory load considering the structurally inverse structures like English and Turkish. As in the example below, the subjects showed a tendency of segmentation when they encountered long sentences:

ST: Gazze Şeridi'nde yaşanan son gelişmeler hakkında bizleri bilgilendirmek üzere burada bulunan Sayın Başkan Mahmud Abbas ve Arap Ligi Heyeti'nde yer alan saygıdeğer Bakanlara da hoşgeldiniz demek istiyorum:

TT: Mr. President Mahmud Abbas and distinguished Ministers from the Arap League are here to inform us. I would like to welcome them.

When I felt that the sentence would be long, I generally preferred to divide them into smaller sentences. For example for the opening remark of the English speech, I used this strategy. "It is a great honor to address this United Nations General Assembly for the second time, nearly two years after my election as the President of the United States." I interpreted this sentence with two sentences as "Benim için Birleşmiş Milletler Genel Kurulu'nda ikinci defa hitap etmek büyük bir mutluluktur. ABD Başkanı seçildikten iki yıl sonra bunu gerçekleştiriyorum." (Subject 13, English Speech)

Subject 1 answered the question in the questionnaire (How did you cope with long sentences?) as stating that "I don't think there were many long sentences. I used the strategy of 'segmentation' only once for that sentences 'Unutmayalım ki, bugün İsrailliler tarafından bombalanan ve saldırıya uğrayan Filistin, sonsuza dek İsrail'in komşusu olarak kalacaktır.' "The interpreted version of the sentence is as follows: We have to keep in mind something. Today Palestine is bombarded and attacked by Israel. Palestine will be a neighbor of Israel until the end of the time.

- **Stalling by using neutral material:** Neutral material in terms of interpreting can be regarded as sentences or segments that are used by interpreters to ensure that the listeners do not get the false impression of the fact that the interpreter has missed a point when they need to wait for the end of the sentence to comprehend the meaning (Doğan, 2009a); thus, interpreters avoid long and salient pauses. These materials are used to fill the salient pauses. As stated by Setton (1999), this strategy is of great importance and useful in terms of left-branching sentences and verb-final sentences. These neutral material used for stalling do not provide new information they just enable the interpreter to delay the reformulation phase and continue listening to the incoming segment of the sentence.

When I had to wait for the end of the sentence, I generally used "bildiğiniz üzere or bu arada" to have more time to listen to the speech. (Subject 1)

I sometimes felt that I had to wait the end of the sentence, in such cases I said "we should also state that…" to gain some time. (Subject 6)

At the opening sentence of the Turkish speech, I could not get the idea at first therefore I used neutral material for the sentence "Bu, Türkiye'nin Birleşmiş Milletler Güvenlik Konseyi'nde geçici üye olarak katıldığı ilk resmi toplantıdır." and interpreted as "First of all, I would like to say that this is the first official meeting that Turkey is attending to Security Council as permanent member." (Subject 9, Turkish Speech)

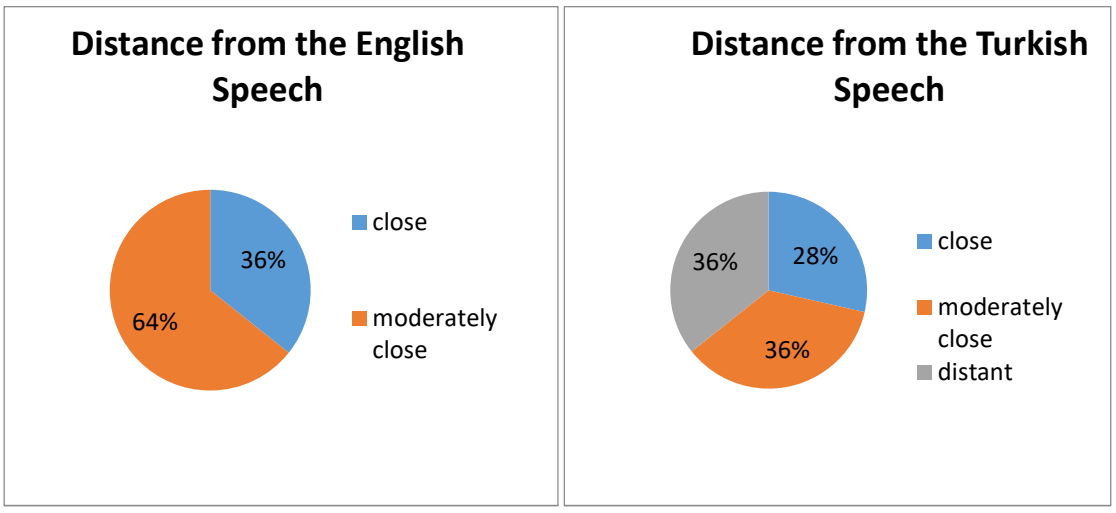
- **Reproducing the sound heard in the SL speech:** Interpreters may try to imitate the sound as they have heard when they encounter a proper name or technical term which they have heard for the first time or do not recognize. In order to be able to observe whether the subjects use this strategy, both English and Turkish speeches included some proper names and technical terms.

For the name of the French Foreign Minister "Bernard Kouchner" in the Turkish speech, nine of the participants pronounced the name as they heard since they stated in their remarks that they had not heard the name before, on the other hand five participants preferred not to take risks and omitted the name totally.

When it comes to the proper names of the places mentioned in the English texts, while most of the participants reproduced the sound heard in the SL speech for "Casablanca and Jalalabad", interestingly they preferred to omit "Jakarta"; therefore, had to change the structure of the sentence.

- **Changing the Ear-Voice Span:** Ear-voice span (EVS) is defined as the time lag between comprehension and reformulation. By changing EVS, in other words keeping a distance from the speaker either following closely or far behind, interpreters reduce the processing capacity requirements for comprehension and reformulation to some extent. In order to decrease short term memory requirement, they shorten the lag, but this may cause misunderstanding of the sentence. When interpreters stay distant to the speech, their comprehension increases but short-term memory load may increase (Gile, 1995). Changing the ear-voice span basically depends on between which language an interpreter works. Considering symmetric languages sharing similar structures lagging further behind may not cause many risks, whereas, with structurally inverse languages it puts too much load on the short-term memory. As illustrated in Chart 3, and observed from the remarks of the participants, and their interpreting outputs, it is clear that the subjects lagged further behind when interpreting from Turkish into English since they had to wait the end of the sentences in order not to misunderstand the sentence.

Chart 3: Distance from the Speaker of the English and Turkish Speeches (EVS)



- **Taking notes:** In terms of taking notes during interpreting, it seems that participants tended to write down dates, figures and listed items such as the names of the countries listed in the Turkish speech. Apart from taking notes during interpreting, prior notes about the date, venue of the speech may be useful while interpreting. Subject 1 for example stated writing down one key word "BM Güvenlik Konseyi" in order not to focus on the term during interpreting when the subjects were informed about the speaker, and the place and date of the speech.
- **Visualization:** Visualization is a widely used strategy by interpreters. In this study interestingly only a few participants mentioned about using this strategy. Subject 9 stated "*I had a map of the area, Middle East in my mind while interpreting into English and tried to place the speech on this map; thus it enabled me to grasp the speech well and easy to recall the segments in cases when I had to wait the end of the sentence. I also visualized again a map including Palestine and Israel,*

> *Iran and Iraq in my mind. I felt very close to what was said by the speaker. It helped me to interpret the message better.*" By using the strategy of visualization, interpreters can easily convey the message without focusing on the wording of the speaker and the structure of the sentences. Subject 12 as well reported visualizing a map of the Middle East and pictures of recent event in the region.

It is clear from the remarks of the subjects, and analyses of their interpreting outputs that there is no significant preference for a specific kind of strategy in terms of directionality. As indicated by the abovementioned examples all the strategies were utilized both when interpreting into Turkish and into English. It was found that same strategies were used to tackle similar problems in different interpreting directions. Yet, it should be noted that strategies such as anticipation and segmentation were favored deliberately when interpreting into English due to the verb-final structure of Turkish. It was also observed that in most cases strategies were used in an overlapping way to solve the problem by student interpreters, which suggests that while performing SI task, in order to address a problem either during comprehension or reformulation, the strategies usually overlap with each other. While the interpreting performance of the subjects were better in B>A direction in terms of SI quality, when it comes to propositional accuracy scores of the semantic content of the interpreting outputs it was found that the scores were significantly higher in A>B direction. The findings gathered from the questionnaires indicate that there is no significant effect of directionality on strategy preferences during SI in different directions, but participants were found to favor specific strategies such as segmentation and macroprocessing while interpreting into English.

5. Discussion and conclusion

The aim of carrying out this study was to explore the effect of directionality on SI performances and strategy preferences during a SI task which targeted a group composed of 14 student interpreters. Interpreting outputs of the participants in both directions, namely B>A and A>B directions, were assessed by two external raters in terms of quality which focused on three main criteria, that are (1) meaning, (2) TL use, (3); delivery, and each rater gave a score for every subject based on these criteria, then the mean values of the two raters were calculated for each subject; thus, group-based data were acquired regarding quality assessment of the subjects' SI performances. Moreover, the interpreting outputs of the subjects were scored using a propositional analysis, which was used for measuring semantic accuracy of the interpretations. Each proposition was scored on a scale from 0 to 2 based on the absence, partially and fully rendition of the proposition. Data about metacognitive processes of the participants and strategy use during the two SI tasks in different directions were gathered by means of strategy use questionnaire and individual remarks of participants while filling in the questionnaires. Data collected from the SI quality and propositional analyses were verified statistically using paired sample t-tests. Findings and discussions obtained from the results of the analyses of interpreting outputs and questionnaires were presented both in a qualitative and quantitative manner, which would ensure the better understanding of the results.

In terms of SI quality scores of the participants which were given by two external raters, there was a significant difference between the interpreting performances of the student interpreters in favor of the B>A direction based on TL use and total scores. Considering interpreting quality scores, it can be concluded from the mean values that even though participants' delivery and meaning scores did not differ significantly, their TL use was, as expected better in the B>A direction, which shows that participants were able to use their mother tongue more fluently and with less grammatical mistakes. Since participants live in a Turkish speaking community, their word choices and phrasing skills are no

doubt better in the B>A direction. It can be considered as an indication of better reformulation performance. The participants' meaning scores indicate that they make omissions and additions in both directions, there was no significant difference in terms of the omission and addition rate. As a whole, the analysis also presented that their general interpreting performance was slightly better in the B>A direction than in the A>B direction, which is in parallel with the survey-based studies of Bartlomiejczyk (2004) and Opdenhoff (2011), in which SI into A language was considered as better in terms of quality.

When it comes to propositional analysis of the interpreting outputs of the participants, which basically gives credit to accuracy and completeness of the propositions, the analysis revealed that student interpreters had better results when interpreting into B language, since they had no difficulty in understanding the text, therefore rendered more propositions accurately. Based on propositional accuracy scores, there was a significant difference between the scores of the subjects in favour of A>B direction. The results of the analysis indicate that the percentage of propositions fully rendered by student interpreters was significantly more when interpreting from Turkish to English; namely in A>B direction. Propositional accuracy scores of every participant without any exception were higher when interpreting into English. Even though they may have had extra load of their short term memories since their ear-voice spans were observed to increase in this direction, they preferred rendering the propositions even partially rather than omitting them while interpreting into English in contrary to B>A direction. This clearly indicates that the easier comprehension phase of SI gets, the more the percentage of accurate propositions increases. The result of the propositional accuracy scores of student interpreters is in parallel with other studies which were carried out on students interpreters using propositional accuracy method; such as Barik (1975) and Tommola and Heleva (1998); both of the studies showed a favorable advantage in the A>B direction.

Although the analyses of the interpreting outputs of the participants from two different perspectives; one related with quality of the interpreting and the other focusing on semantic accuracy, revealed different results, it does not mean that they contradict with each other. On the contrary, they provide two different points of views for the effect of interpreting direction and the results show that the effect of directionality can be observed and found in various ways. In terms of quality which focuses on delivery and TL use, general evaluation of the whole process, it is plausible to expect that participants may have better results when interpreting from B language into A language, since they have dominance in Turkish and are capable of using the language fluently and faultlessly. Student interpreters showed better performance in terms of proportion of grammatical mistakes and word choice and phrasing as expected. On the other hand, no significant difference was observed in meaning and delivery scores between two interpreting directions. Although there seems to be a slight difference in favor of B>A direction in terms of meaning and delivery scores, it cannot be regarded as a significant difference. Based on such a comprehensive analysis of simultaneous interpreting performance of student interpreters, it can be concluded that full and easy comprehension in A language is directly related with SI performance. Easy comprehension decreases the processing capacity for listening phase and makes it possible for interpreters to focus on their productions. The difference between TL use while working in B>A and A>B directions can easily be overcome by improving the command of both working languages with an emphasis on B language.

With respect to strategy use in simultaneous interpreting, data gathered from the questionnaires and verbal feedbacks of the participants indicated that a wide range of strategies including anticipation, segmentation, macroprocessing, stalling by using neutral sounds, changing the ear voice span, note-taking and visualization were employed by student interpreters to overcome different problems during

the two SI tasks. It was interesting to note that most of the participants considered the same passages of speeches as problematic; however, their strategy preferences changed while dealing with the problem. For example, while one participant applied segmentation strategy for a long sentence in Turkish speech, another participant preferred to increase the ear voice span to hear the end on the same sentence. In the B>A direction, it seems that segmentation was the most used strategy throughout the task to produce more fluent and clear interpretation. On the other hand, macroprocessing and anticipation strategies were favored while interpreting in the A>B direction since it would enable them to decrease the extra burden on short term and working memory which stems from the syntactic differences between English and Turkish.

It should be noted that most of the participants stated that their strategy preferences were mainly related with their experience with the use of that specific strategy, which shows that the effective use of strategies during a SI task can be improved through regular practice of the strategy. In this way, student interpreters can even develop their own strategies to deal with a specific problem during either comprehension or reformulation phases of SI. It can be concluded from all the remarks and statements of the participants that their interpreting performance largely depends on their motivation and engagement at the time of the task. It is also interesting that even if the size of the group is rather small, the tendencies towards preferences for strategy use and interpreting direction differ from one person to another in terms of the preference of directionality. There are many factors such as language proficiency, experience, etc. which are closely linked to directionality that cannot be tackled thoroughly in one study. This in fact shows the multidimensional nature of the issue of directionality. It could also be concluded that strategy preferences can be regarded as subject-dependent since personal attitudes towards how interpreting should be determine the strategy preferences; they differ in accordance with the decisions of interpreters during the task on whether meaning or fluent reformulation should be prioritized.

It goes without saying that the results of this study can be utilized to improve the content and structure of the interpreter training courses with an emphasis on A>B interpreting direction. The share of practices in that direction can be increased so that students can find their own ways to make more use of strategies available for them. Additional importance should be attached to specific strategies such as anticipation and macroprocessing considering inverse structure of English and Turkish. Students should be made more aware of the fact that simultaneous interpreting in different language pairs requires different preparation processes and strategy use, which are also argued by Donovan (2003) and Snelling (1992). As suggested by Wu and Liao (2018), interpreting strategies should be re-conceptualized taking into account interpreting into a B language. Production-related interpreting strategies categorized as problem-solving, problem-preventing and message-enhancing should be integrated into teaching interpreting into a B language for pedagogical purposes. The training of B>A and A>B interpreting should take into account different aspects of SI process; in case of interpreting from Turkish into English inference-based strategies should be on the forefront during training. The pedagogy of interpreter training should make use of such empirical results of studies on directionality while developing the most suitable teaching methods specifically tailored for language pairs and retour interpreting.

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