Comparative Analysis of Two Factors That Influence the Attention of the Hearers while Decoding the Language Input in their Mind

Dilsel Girdilerin Zihinde Çözümlenmesinde Dinleyicilerin Dikkatini Etkileyen İki Etkenin Karşılaştırmalı Analizi

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Abstract

In a speech situation, the utterances produced by the speakers may not be salient for the hearers to the same degree. Some words or phrases produced by the speakers may be more salient for the hearers. This salience difference among the components of a sentence reveals a lot about the language mechanism in human mind. One of the leading cognitive linguists, Leonard Talmy, identified fifty basic factors that influence the attention of the hearers while decoding the language input in their mind (2007, pp. 264-294). In this study, two of the factors that have roles in this process: (1) the use of prototype members, and (2) the syntactic position of the constituents, have been used contrastively in order to check which factor is more salient than the other. The hypothesis of the study was that the prototypical properties of the constituents may be more salient than their syntactic positions. In other words, the items that are viewed as more prototypical may be more salient for the hearers compared to the non-prototypical items even if they are used in less stressed sentence positions. The study consists of two parts. In the first part, the prototypical members of ten categories were determined through a survey. In the second part, another survey was administered to the subjects twice in two different forms. In the first application, the prototypical members of the categories were placed in less salient sentence positions while the non-prototypical members were placed in more salient sentence positions. In the second application their positions were replaced. The surveys were administered to forty participants whose ages ranged from 16 to 35. The collected data were given in tables. The results of the study supported the hypothesis of the study. In total, 605 out of 800 responses indicated that prototypical members are more salient than the non-prototypical constituents in the sentences. Regardless of their syntactic position, the prototypical constituents grasped the attention of the participants. Hence, it is possible to conclude that prototypicality of the constituents have a great influence on the decoding process of language input in human mind.

Key Words: cognitive linguistics, attention, prototype theory, syntax

Öz

Konuşma ortamlarında, konuşmacıların ürettikleri ifadelerin tümü dinleyiciler için aynı derecede dikkat çekici olmayabilir. Konuşmacının kullandığı bazı sözcük ya da sözcük grupları dinleyicilerin dikkatini diğer sözcüklere oranla daha fazla çekebilir. Dil öğeleri arasında bulunan bu farklılık insan beyninde bulunan dil mekanizması hakkında önemli bilgileri açığa çıkartır. Bilişsel dilbilim alanında önde gelen dilbilimcilerden biri olan Leonard Talmy, dilsel verilerin zihinde çözümlenmesinde dinleyicilerin dikkatini etkileyen 50 temel etken saptamıştır (2007, ss.264-294). Bu ça-

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lışmada, bu süreçte rol oynayan iki etken, (1) ilk örnek (prototip) öğelerin kullanımı ve (2) cümle öğelerinin sözdizimsel konumu, birbirine tezat oluşturacak şekilde kullanılmıştır. Böylelikle hangi etkenin dilsel verilerin zihinde çözümlenmesi sürecinde daha fazla önem arz ettiği saptanmaya çalışılmıştır. Çalışmada cümle öğelerinin ilk örneksel özelliklerinin sözdizimsel konumlarına göre daha dikkat çekici olduğu varsayılmıştır. Bir başka deyişle, ilk örnek öğeler sözdizimsel olarak daha az vurgulu konumda bulunmalarına rağmen ilk örnek olmayan öğelere göre daha dikkat çekici olabilirler. Çalışma iki aşamadan oluşmaktadır. Birinci aşamada, belirlenen 10 ulamın ilk örnekleri uygulanan bir anketle saptanmıştır. İkinci aşamada, başka bir anket aynı deneklere 2 farklı şekilde uygulanmıştır. İlk uygulamada, ilk örnek olmayan öğeler cümle vurgusunun en yüksek olduğu konumlarına yerleştirilirken, ilk örnek öğeler vurgunun en az olduğu konumlarına yerleştirilmişlerdir. İkinci uygulamada öğelerin yerleri değiştirilmiştir. Anketler yaşları 16-35 arasında değişen 40 deneğe uygulanmıştır. Toplanan veriler incelenerek tablolarda sunulmuştur. Çalışmanın sonuçları varsayımı desteklemektedir. Toplam 800 yanıtın 605'inde ilk örnek öğelerin ilk örnek olmayan öğelere göre daha dikkat çekici olduğu görülmüştür. Sözdizimsel konumları ne olursa olsun, ilk örnek öğelerin deneklerin dikkatini daha önce çektiği saptanmıştır. Dolayısıyla, dilsel girdilerin zihinde çözümlenmesi sürecinde öğelerin ilk örneksel özelliklerinin önemli bir etkiye sahip olduğu sonucu çıkarılabilir.

Anahtar Sözcükler: bilişsel dilbilim, dikkat, ilk örnek kuramı, sözdizim

Introduction

In a speech situation some of the utterances produced by the speakers may be more salient for the hearers. In other words, all of the expressions produced by a speaker are not salient for the hearer to the same degree. In a speech context, some words or phrases grasp the attention of the hearers while some others are not given importance to the same degree. Such differences may result from the fact that hearers may intrinsically have greater interest of certain elements over others.

This salience difference among the components of a sentence reveals a lot about the language mechanism in human mind. In daily observations, it can easily be noticed that all parts or aspects of the expressions produced by the speakers are not salient for the hearers to the same degree. If they were equally salient, it would be far difficult for the hearers to receive the messages produced by the speakers, since they had to treat all aspects of the expression equally and try to get the message from overall meaning of the expression. This would be a difficult task. The existence of the salient elements accelerates the decoding process. In fact, these attentional properties found in language exist in other cognitive mechanisms as well. For instance, an instructor can easily learn the name of a black student sitting among the white students in a classroom since he is more distinct compared to his classmates.

Attention Phenomena

The attention phenomena show us our priorities on focusing on a message that we want to decode. All elements of an utterance do not attract our attention equally. As Croft and Cruse point out "The process of attention is a well-known basic phenomenon in cognitive psychology. Attention appears to be closest to be the focus of consciousness (2004, p.46)."

The Studies on Attention Phenomena

Cognitive linguistics gives special interest to attention phenomena. As Talmy (2007) states, there are extensive studies on the issue of attention and salience. These studies focus on the points like topic and focus, focal attention, activation, prototype theory, frame semantics, profiling, and deictic center (p.266). In Turkish, however, attention is not one of the subjects that have been investigated by the linguists very often. There should be more studies in Turkish on this research field.

The Factors in Attention Phenomena

There are fifty basic factors that have been identified by Leonard Talmy in the attention system (2007, pp. 264-294). Each factor involves a particular linguistic mechanism that increases or decreases attention on a certain type of linguistic entity. These fifty categories fall into ten categories and their subcategories. These factors may act alone, but they sometimes combine and interact to produce further attentional effect. Most of these salience differences are caused by semantic reasons, but there are also some phonological, morphological and syntactic reasons as well. The basic similar points among these factors are that the expressions that are more distinct, clearer, and more significant are more salient for the hearers while the ones that are more vague, melded and ordinary are less salient.

Examples to the factors determined by Talmy

Factor 1: Prototype members are more salient than other members. For instance; robin is more salient than *ostrich* (Talmy, 2007, p.273).

Factor 2: The words in some certain sentence positions are more salient than others. Talmy states that "each language may have certain positions within a sentence—for example, initial position or pre-verbal position—that tend to foreground the referent of a constituent placed there…Many properties of topic and focus, as these have been regarded in the literature, are often engaged by such special positioning." (2007:274). He further proposes that in English, topicalized elements are more salient than other elements. For instance, in the sentence, "This kind of music I cannot stand right now." The element "this kind of music" is in the topic position and it is the salient element in the sentence (2007, p.274).

The Contrastive Use of the Attentional Factors

Talmy puts forward that "two factors can conflict in their attentional effects, with the resolution usually either that one factor overrides the other or that they are in competition in which case the hearer's attention is divided or wavering between the two claims on it" (2007, p.290). This study aims to investigate the attentional effects of two factors that are used together in the same sentence to find out which one is dominant over the other.

The first factor selected to that end is the prototype membership. Prototypes were first mentioned by Rosch (1973). He claimed that the members of the categories do not represent the categories equally. Some of them are better representatives of their categories. Hence, Gilquin defines *prototype* as 'the most representative member of a category'. Thus, a *robin* is considered a better example of the *bird-category* than a *penguin*, and a *chair* is a better example of the *furniture-category* than a *telephone* (2006, p.160). In a similar fashion, Dan McIntyre (2006, p.3) explains prototypicality as "In strict zoological terms a penguin belongs to the category *bird*. However, if we consider the ability to fly as a defining attribute of a bird, then a *robin* or a *sparrow* would be a much better example of a bird than a penguin". Seferoğlu had a study to analyze the prototypicality in Turkish. She confirmed that some of the members in a category represent the features of that category better than the other members (1999, pp.79-87).

According to Talmy, prototype members are more salient than other group members in a sentence (2007, p.273). Also, Rosch points out that "There is psychological evidence for prototype effects in categorization. Statements about central members are processed far more quickly than statements about marginal members, and reasoning about any category is based on what is known about good examples of the category" (cited in Dirven, 2005, p.24). Langacker supports the same view as: "Within a category, the prototype has greater salience than its various extensions" (2008, p.66).

The second factor that has been analyzed in this study is the sentential position of the items. Talmy states that some constituents in certain sentential positions are more salient than the others (2007, p.274). Similarly, Schmid puts forward that "the salience of nominals may be determined by their positions in clause structures (2007, p.129)". He also points out that "Different degrees of salience of concepts are not only seen to be reflected in the lexical choices provided by languages, but also in their grammars. It is one of the most fundamental ideas in cognitive linguistics that grammatical structures encode and control the distribution of attention across the entities involved in a given scene (2007, p.127)".

In this study, these two factors have been used comparatively and contrastively in Turkish context to determine which one is dominant over the other.

The Constituent Order in Turkish

Turkish has a flexible constituent order. As Bozşahin points out: "Turkish is generally regarded as a free word order language…Phrase structure analyses show that Turkish has an SOV basic word order" (2003, pp.96-99).

Sentence initial position is the topic position in Turkish (Erguvanlı, 1984, p.37; Hofmann, 1998, p.254). Thus, without a doubt, topic position is a pre-verbal position rather than a post-verbal one. Kornfilt states that topics can bear a secondary intonation peak, which is perceptibly lower than the typical sentence peak which is immediately pre-verbal (1997, p.508).

As for the focus position, Erguvanlı proposes that immediately pre-verbal position is the focus position in Turkish and sentence stress is usually on the element that exists in this position (1984, p.51). She also expresses that the constituent in the focus position has "the highest communicative dynamism" (1984, p.34). Similarly, Kornfilt states that focused constituents typically occupy immediately pre-verbal position and attract the main intonation peak. For instance, in the sentence, *"Hasan bugün ıstakoz yedi" (It was lobsters that Hasan ate today),* the focused element in the sentence is *"ıstakoz" (lobsters)* that occupy the immediately pre-verbal position. She also expresses that the element in the topic position "Hasan" receives the secondary stress in this sentence (1997, p.506).

As for the post-verbal elements, Erguvanlı states that these elements are never stressed in Turkish (1984, p.44). For instance, in the sentence: *"Murat dün döndü Ankara'dan"* (*Murat returned from Ankara yesterday*), the post-predicate element, "Ankara'dan" (*from Ankara*) cannot be the element that is stressed in the sentence (1984, pp.44-45). In a similar vein, Göksel and Özsoy state that stress is the sole indicator of focus in Turkish. They further claim that the focus in Turkish is in one of the positions that precede the verb; and only non-focused phrases can occur in the post-verbal position (2000, pp.219-228). Another linguist, Kuno (1978), proposes that the post-verbal elements in Turkish are either discourse-predictable or supplementary; therefore the sentences should make sense without them (as cited in Erguvanlı 1984, p.52). Erguvanlı supports his claims by stating that background information (represented in the post-predicate elements in Turkish) is material that is "supplementary" to the communication of a linguistic expression. The elements termed as background may not be indispensable for syntactic reasons (1984, p.56).

As Talmy puts forward: "Each language may have certain positions within a sentence—for example, initial position or pre-verbal position—that tend to foreground the referent of a constituent placed there… Many properties of topic and focus, as these have been regarded in the literature, are often engaged by such special positioning" (2007, p.274). Following his views, it can be claimed that the elements in topic or focus positions in a language can be viewed as more salient than other elements in the attention system. Thus, regarding the constituent order properties of Turkish, it can be deduced that the elements that exist in pre-verbal sentence positions in Turkish (mainly focus position; secondarily topic position) would be more salient than the post-verbal elements.

The Statement of the Problem

When the factors mentioned above are used in separate sentences, the salience difference can easily be recognized in those sentences; however, when two factors are used in the same sentence, the salience difference may become difficult to recognize. As Talmy states "The factors can be used together in order to increase the level of attention. However, if contrastive factors are used together, the result may cause a conflict as well" (2007, p.290).

Purpose of the Study

In this study, two of the factors in attention phenomena: the use of prototype members, and the position of the constituents in the sentence, have been used contrastively in order to check which factor is more salient than the other. It can be claimed that the prototypical properties of the constituents are more salient than their syntactic positions. In other words, the items that are viewed as more prototypical can be more salient for the hearers compared to the less prototypical items even if they are used in less stressed sentence positions.

Research Questions

This study aims to answer the following research questions:

1- What are the prototypical members for the categories like fruits, birds, flowers, clothes, colors, relatives, courses, vegetables, trees and furniture in Turkish?

2- Is the use of prototypical members or the position of the constituents more influential in determining the salience in Turkish sentences?

3- When the target factors are used jointly in the same sentence, does the level of salience change?

Methodology

The study consists of two parts. In the first part, ten prototypical members of the categories that are going to be used in the study have been determined through a survey. In the second part, another survey was prepared. This survey was administered to the same subjects twice in two different forms. In the first application, the most prototypical members of the categories were placed in less salient sentence positions while the least prototypical members were placed in more salient sentence positions. In the second application their positions were replaced.

The Prototype Survey

First of all, a survey that aimed to determine the prototypical members of the categories like fruits, vegetables, clothes, trees etc was prepared. Seven options were provided for each category. The reason for providing the categories was to ensure the validity of the study. If the participants had not been provided any options, some of them would have provided completely unfamiliar responses (for instance, the name of an exotic bird). Using unfamiliar items in the main study would have had a negative influence on the validity of the study, because such responses would have been viewed as more salient

for some participants since the participants do not hear those items very often. In other words, even though such items were not prototypical, they might have been viewed as salient due to their unfamiliarity. Because of this reason, the options were provided by the researcher.

While preparing the options, the items that are commonly known by the public were preferred. The items that might have been viewed as completely unfamiliar by the participants were excluded. When a participant uttered an item that does not exist in the list, he was asked to utter another one.

The Salience Survey

Having analyzed the participants' responses, the most prototypical and the least prototypical members for the categories were determined. Then, the researcher prepared the main survey of the study. This survey, which consisted of ten items, was implemented in two stages.

The First Application of the Salience Survey

In the first application of the salience survey, the items which had been determined as the most prototypical members of their categories were placed in post-verbal positions in the sentence. The ones which had been determined as the least prototypical were placed in the pre-verbal position, which is thought to be more salient according to attention system.

For the validity of the study, special attention was given to the application of the survey. The items were asked to each participant individually after explaining what was expected from them clearly. The researcher implemented the survey orally by reading the items one by one to each participant. While reading the test items, the researcher put the sentential stress on the pre-verbal elements rather than the post-verbal ones. As Kornfilt states, the post-verbal element in Turkish carry low pitch and the intonation contour of the sentence undergoes a sudden drop after the verb (1997, p.207). Besides, as Erguvanlı points out, sentence stress is usually on the element that immediately precedes the verb (1984, p.51). Therefore, the sentences were read to the participants with the ordinary intonational patterns that they have in oral communication.

After reading each test item, the researcher paused for a few second to provide time for the participants to decode what they heard in their mind. Then, he showed the written form of the sentence and asked the participants to show the underlined element that grasped their attention first when they tried to understand the meaning of the sentence. In other words, the participants were required to state the underlined element which appeared

in their mind more strongly and faster after hearing the sentence. The same procedure was applied all test items one by one.

The Second Application of the Salience Survey

In the second application of the salience survey, the syntactic positions of the constituents were replaced. That is to say that the prototypical members were located in the stressed sentence positions while the non-prototypical members were used in post-verbal positions. The survey was implemented to the same participants in this new form one month later than the application of the first form. The reason for this application was to make a better comparison between the factors in question, and to control the effects of the outer factors. For instance, other semantic factors like intended versus actual reference or figure- ground relationship etc. might have been in progress in the first application of the study. By means of this second application, only the target factors, the prototype membership and syntactic position of the constituents, could be analyzed comparatively and contrastively. Besides, the researcher wanted to check what results he would get when the target factors used together in the same sentence. This application was necessary to find an answer for the third research question.

The second salience survey was implemented to the participants one by one with the same procedure that was followed in the application of the first salience survey.

Limitations

There are fifty basic factors that have been identified by Talmy (2007, pp.264-294). They are distributed to ten categories and their subcategories. Some of these factors involve lexical properties of the constituents, and some others involve phonological, syntactic or morphological reasons. In this study, only two of the fifty factors: the use of prototypical members in a sentence and the syntactic position of the constituents have been investigated. The other factors have been kept out of the study.

The tests were administered to 40 participants whose ages ranged from 16 to 35. 22 of them are high school students in Çankırı- Çerkeş, 13 of them are teachers in Çerkeş and five of them are university students in Ankara- Hacettepe University.

Data Analysis and Discussion

The Prototype Survey

In the first part of the study, the prototype survey was administered to the participants to determine the most and the least prototypical members of the categories that were aimed to be investigated in the study. The results are seen in the Table below:

Table 1: The Responses of the Participants on the Prototype Survey (n=40)

Category	1 (The Most Prototypical Members)		2		3		4		5		6		7 (The Least Prototypical members)	
Meyveler ***Fruits***	Elma *Apple*	12	Portakal *Orange*	9	Kiraz *Cherry*	7	Muz *Banana*	4	Nar *Pomegranate*		Erik *Plum*	3	Ayva *Quince*	2
Kuşlar ***Birds***	Güvercin *Dove*	13	Serçe *Sparrow*	7	Karga *Crow*	6	Papağan *Parrot*	6	Kartal *Eagle*		Keklik *Partridge*	2	Leylek *Stork*	1
Ağaçlar *Trees*	Çam *Pine*	21	Kavak *Poplar*	6	Söğüt *Willow*	6	Akasya *Acacia*	3	Çınar *Plane*		Meşe *Oak*	2	Selvi *Cyp-ress*	0
Renkler ***Colors***	Kırmızı *Red*	13	Mavi *Blue*	6	*Sarı Yellow*	6	Siyah *Black*	5	Yeşil *Green*		Beyaz *White*	3	Mor *Purple*	3
Çiçekler ***Flowers***	Gül *Rose*	14	Papatya *Daisy*	10	Karanfil *Clove*	4	Menekşe *Violet*	4	Leylak *Lilac*		Zambak *Lily*	3	Lale *Tulip*	2
Akrabalar ***Relatives***	Teyze *Mother's Sister*	16	Amca Father's Brother	7	Dayı Mother's Brother	7	Hala Father's Sister	6	Dede Grand-father		Nine Grand-mother	1	Enişte Brother -in-law	0
Eşyalar ***Furni-ture***	Koltuk *Armchair*	18	Kanepe *Couch*	9	Masa *Table*	5	Sandalye *Chair*	3	Halı *Carpet*		Perde *Curtain*	2	Dolap *Cup-board*	1
Dersler ***School Subjects***	Matematik *Maths*	27	İngilizce *English*	7	Fizik *Physics*	4	Tarih *History*	1	Kimya *Chemis-try*		Biyoloji *Biology*	0	Coğrafya *Geography*	0
Sebzeler ***Vegeta-bles***	Domates *Tomatoes*	13	Ispanak *Spinach*	10	Patlıcan *Egg-plant*	5	Pırasa *Leek*	4	Patates *Patato*		Biber *Pepper*	2	Marul *Lettuce*	2
Giysiler ***Clothes***	Pantolon *Pants*	11	Etek *Skirt*	9	Ceket *Jacket*	6	Gömlek *Shirt*	5	Kazak *Pullover*		Yelek *Vest*	3	Palto *Coat*	2

As it is clearly seen in the Table, Elma (*Apple*), Güvercin (*Dove*), Çam (*Pine*), Kırmızı (*Red*), Gül (*Rose*), Teyze (Aunt; *Mother's Sister*), Koltuk (*Armchair*), Matematik (*Maths*), Domates (*Tomatoes*), and Pantolon (*Pants*) were responded as the most prototypical members of their categories while Ayva (*Quince*), Leylek (*Stork*), Selvi (*Cypress*), Mor (*Purple*), Lale (*Tulip*), Enişte (*Brother-in-law*), Dolap (*Cupboard*), Coğrafya (*Geography*), Marul (*Lettuce*) and Palto (*Coat*) were considered to be the least prototypical members of their categories. When the items got the same number of responses, they were ranked arbitrarily by the researcher since it would not cause any problem for the study. Only the items that got the highest and lowest number of responses have been used in the main survey of the study.

The First Salience Survey

The results for the first salience survey are demonstrated in Table 2.

Sentence No	Non-Prototypical Members in Pre-verbal position			Prototypical Members in Post-verbal position		
	Name	Frequency & Per cent (n= 40)		Name	Frequency & Per cent (n= 40)	
1.Sentence	Ayva *(Quince)*	8	20%	Elma *(Apple)*	32	80 %
2.Sentence	Leylek *(Stork)*	16	40%	Güvercin *(Dove)*	24	60 %
3.Sentence	Selvi *(Cypress)*	5	12,5%	Çam *(Pine)*	35	87,5%
4.Sentence	Mor *(Purple)*	15	37,5%	*Kırmızı (Red)*	25	62,5%
5.Sentence	Lale *(Tulip)*	7	17,5%	Gül *(Rose)*	33	82,5%
6.Sentence	Enişte *(Brother-in-law)*	6	15%	Teyze *(Mother's Sister)*	34	85%
7.Sentence	Dolap *(Cupboard)*	15	37,5%	Koltuk *(Armchair)*	25	62,5%
8.Sentence	Coğrafya *(Geography)*	6	15%	Matematik *(Maths)*	34	85%
9.Sentence	Marul *(Lettuce)*	7	17,5%	Domates *(Tomatoes)*	33	82,5%
10.Sentence	Palto *(Coat)*	14	35 %	Pantolon *(Pants)*	26	65%
Total (Out of 400)		**99**	**24,75%**		**301**	**75,25%)**

Table 2: The Responses of the Participants on the First Salience Survey

In the study, it was hypothesized that the prototype membership of the constituents is more salient in attention phenomena compared to their syntactic position. That is to say that the prototypical constituents were claimed to grasp the attention of the hearers although they were not located in stressed sentence position.

As it is obvious in Table 2, the responses of the participants support the hypothesis of the study. 301 of the 400 responses support what was hypothesized at the beginning of the study. That is, more than three quarters of the responses (75,25%) indicate that prototype membership is dominant over syntactic position of the constituents in attention phenomena. Even if the prototypical members are used in less stressed, post-verbal sentence positions, they grasp the attention of the participants compared to less prototypical members that are used in the topic or focus positions, which are expected to be more salient sentence positions according to Talmy (2007). This finding is valid in all of the categories examined in the study. In none of the ten categories, syntactic position appeared to be dominant on prototype membership in attention phenomena.

The Second Salience Survey

The results of the second salience survey can be seen in Table 3.

Table 3. The Responses of the Participants on the Second Salience Survey

Sentence No	Prototypical Members in Pre-verbal position			Non-Prototypical Members in Post-verbal position		
	Name	Frequency & Per cent (n= 40)		Name	Frequency & Per cent (n= 40)	
1.Sentence	Elma *(Apple)*	34	85%	Ayva *(Quince)*	6	15%
2.Sentence	Güvercin *(Dove)*	29	72,5%	Leylek *(Stork)*	11	27.5%
3.Sentence	Çam *(Pine)*	31	77,5%	Selvi *(Cypress)*	9	22,5%
4.Sentence	*Kırmızı (Red)*	26	65%	Mor *(Purple)*	14	35%
5.Sentence	Gül *(Rose)*	34	85%	Lale *(Tulip)*	6	15%
6.Sentence	Teyze *(Mother's Sister)*	27	67,5%	Enişte *(Brother-in-law)*	13	32,5%
7.Sentence	Koltuk *(Armchair)*	29	72,5%	Dolap *(Cupboard)*	11	27.5%
8.Sentence	Matematik *(Maths)*	33	82,5%	Coğrafya *(Geography)*	7	17,5%
9.Sentence	Domates *(Tomatoes)*	32	80%	Marul *(Lettuce)*	8	20%
10.Sentence	Pantolon *(Pants)*	29	72,5%	Palto *(Coat)*	11	27,5%
Total(Out of 400)		**304**	**76%**		**96**	**24 %**

As it is clearly seen in Table 3, the prototypical members could grasp the attention of the majority of the participants in this sentence position as well. 304 of the total responses (76 per cent) indicated that the prototypical members are more salient for the participants compared to non-prototypical ones. Only 96 responses (24 per cent) indicated the salience of non-prototypical members. The change in the positions of the constituents caused just a little difference in the overall results. A great majority of the participants viewed prototypical members more salient regardless of their sentence position.

When each of the test items is analyzed separately, it is obviously seen that in all of the test items there is a remarkable difference among the percentages of the prototypical and non-prototypical members. In none of the test items the non-prototypical members could get higher percentages than the prototypical ones. That is, in both salience surveys, all of the prototypical members were viewed as more prominent by the participants regardless of their positions in the sentences.

Since almost equal results were obtained in both applications, it can also be concluded that the syntactic position of the constituents has got almost no attentional effect when it is used together with the prototype membership factor. The prototypical members could get 301 responses in post-verbal sentence position, and 304 responses in pre-verbal sentence position. Since these frequencies are almost equal, it can be claimed that prototypical members are notably more prominent in both sentence positions compared to the non-prototypical members.

The Comparative Analysis of the Items in the Salience Surveys

The ten items that were used in the salience surveys have been comparatively analyzed. The results of the analyses have been presented below:

The Analysis of the First Test Items in the Salience Surveys

Table 4: The Analysis of the First Items in the Salience Surveys

Survey	**1. Test Item** (n=40)	**Freq.**	**Per cent**
First	Yemekten sonra bir tane ayva yedi bir tane de elma galiba. Meal-Abl after one item quince eat-Past one item -and apple presumably "After the meal, he ate a quince, and presumably an apple as well."	8 / 32	20 / 80 %
Second	Yemekten sonra bir tane elma yedi bir tane de ayva galiba. Meal-Abl after one item apple eat-Past one item -and quince presumably "After the meal, he ate an apple, and presumably a quince as well."	34 / 6	85 / 15 %

In fruits category, *elma (apple)* appeared to be the most prototypical member while *ayva (quince)* was responded to be the least. Hence, these items were used in the salience surveys. In the first application of the salience survey, *ayva* could only get 8 responses although it was used in the focus position. *Elma*, on the other hand, got 32 responses despite being in the post-verbal position. Besides, it is likely that the use of the expression *galiba (It seems like)* may also have a negative psychological effect on the stress of the backgrounded constituents. Since the speaker is not sure whether the person in question ate an *elma* or not, it is almost for sure that the sentence stress is not on this constituent. However, the results suggest that *elma* could get the attention of the great majority of the participants despite these negative points.

In the second application of the salience survey, the constituent *apple* was used in pre-verbal position and *ayva* was used in post-verbal position, yet this replacement did not cause any change in the salience. The prototypical member, *elma*, was considered to be the salient constituent in the sentence by the great majority of the participants. It got 34 responses which make 85 per cent of the total responses, and this number is higher compared to the one in the first salience survey. Thus, it can be claimed that the prototype

membership is very dominant in attention phenomena. The prototypical members grasp the attention of the hearers regardless of their position in the sentence.

The Analysis of the Second Test Items in the Salience Surveys

Table 5: The Analysis of the Second Test Items in the Salience Surveys

Survey	**2. Test Item** (n=40)	**Freq.**	**Per cent**
First	Birkaç tane leylek vardı her zaman güvercinlerin konduğu ağaçta. A few item stork exist-Past every time Dove-Pl-Gen perch-FNom-3sg Tree-Loc "There were a few storks on the tree where doves always perch."	16 / 24	40 / 60 %
Second	Birkaç tane güvercin vardı her zaman leyleklerin konduğu ağaçta. A few item Dove exist-Past every time stork-Pl-Gen perch-FNom-3sg tree-Loc ""There were a few doves on the tree where storks always perch."	29 / 11	72,5/27,5%

In both applications, the prototypical member of the bird category got higher responses compared to the non-prototypical member. 53 responses of the total 80 responses in the surveys indicated the dominance of the prototype membership in attention phenomena. The prototypical member, *güvercin (dove)*, could get higher number of responses in both pre-verbal, and post-verbal sentence positions. The non-prototypical member, *leylek (stork)*, got 16 responses in the focus position, and 11 responses in the post-verbal position, which make 27 out of total 80 responses. Since it could get less number of responses in both sentence positions, it can be claimed that sentence position is not a dominant attentional factor when prototype membership is also in progress.

The Analysis of the Third Test Items in the Salience Surveys

Table 6: The Analysis of the Third Test Items in the Salience Surveys

Survey	**3. Test Item** (n=40)	**Freq.**	**Per cent**
First	Bu bölgede çok sayıda selvi ağacı var çam ağaçlarıyla birlikte. This region-Loc many number-Loc cypress tree-Acc exist pine tree-Pl-Acc-With together "In this region, there lots of cypress trees along with pine trees."	5 / 35	12,5 / 87,5 %
Second	Bu bölgede çok sayıda çam ağacı var selvi ağaçlarıyla birlikte. This region-Loc many number-Loc pine tree-Acc exist cypress tree-Pl-Acc-With together "In this region, there are lots of pine trees along with cypress trees."	31 / 9	77,5 / 22,5 %

In the prototype membership survey, *çam (pine)* got far more responses compared to other members of the category. 21 of the participants responded çam as the most prototypical member of its category. The results for the salience surveys are in accordance

with these results. The great majority of the participants stated that this constituent grasped their attention in the sentences relatively more than the other constituent. Only 14 responses of the total responses of the participants in the survey indicated the salience of the non-prototypical members. 66 responses out of 80 responses can be viewed as a proof for the effectiveness of the prototype membership in attention phenomena.

The Analysis of the Forth Test Items in the Salience Surveys

Table 7: The Analysis of the Forth Test Items in the Salience Surveys

Survey	**4. Test Item** (n=40)	**Freq.**	**Per cent**
First	Mor renkli elbise sana daha çok yakıştı kırmızı renkliye kıyasla. Purple colored dress you-Dat more many fit-Past red colored-Dat comparison-With "The purple dress suited you better than the red one."	15 / 25	37,5/ 62,5%
Second	Kırmızı renkli elbise sana daha çok yakıştı mor renkliye kıyasla. Red colored dress you-Dat more many fit-Past purple colored-Dat comparison-With "The red dress suited you better than the purple one."	26 / 14	65 / 35 %

In both sentence position, *kırmızı (red)* was considered to be more salient than *mor* (*purple*). The first position is the topic position of the sentence; thus, it is obviously more stressed compared to the post-verbal position. However, the results suggest that sentence position has little importance in attention phenomena, since the number of responses that the prototypical and non-prototypical constituents got, remained almost the same in both sentence positions.

The Analysis of the Fifth Test Items in the Salience Surveys

Table 8: The Analysis of the Fifth Test Items in the Salience Surveys

Survey	**5. Test Item** (n=40)	**Freq.**	**Per cent**
First	İlkbahar gelir gelmez bahçeme birkaç lale dikeceğim birkaç tane de gül. Spring come-Aor come-Neg-Neg. Aor garden-1sg-Dat a few tulip plant-Fut-1sg a few item -and rose "As soon as the spring comes, I will plant a few tulips along with a few roses in my garden."	7 / 33	17,5/82,5%
Second	İlkbahar gelir gelmez bahçeme birkaç gül dikeceğim birkaç tane de lale. Spring come-Aor come-Neg-Neg.Aor garden-1sg-Dat a few rose plant-Fut-1sg a few item -and tulip "As soon as the spring comes, I will plant a few roses along with a few tulips in my garden."	34 / 6	85 / 15 %

In the first application of the salience survey, *gül (rose)* could grasp the attention of the great majority of the participants (82,5%) compared to *lale (tulip)* which could only get 17,5 per cent of the responses. Although *lale (tulip)* was at the focus position, it was not viewed to be salient in this sentence. In the second salience survey, almost equal

number of responses indicated the salience of the prototypical member in the sentence. 34 responses out of 40 reveal that prototype membership is very effective in attention phenomena.

The Analysis of the Sixth Tests Item in the Salience Surveys

Table 9: The Analysis of the Sixth Test Items in the Salience Surveys

Survey	**6. Test Item** (n=40)	**Freq.**	**Per cent**
First	Ben enişteme borç vereceğim, teyzem istese de istemese de. I brother-in-law-1sg-Dat loan give-Fut-1sg, mother's sister-1sg want -and want-Neg-and I will lend money to my brother-in-law, no matter whether my aunt approves it or not.	6 / 34	15 / 85 %
Second	Ben teyzeme borç vereceğim, enişte istese de istemese de. I mother'sister-1sg-Dat loan give-Fut-1sg, brother-in-law-1sg want –and want-Neg -and "I will lend money to my aunt, no matter whether my brother-in-law approves it or not."	27 / 13	67,5/37,5%

In this test item, the prototypical member *Teyze (Sister of Mother)* got higher responses compared to the non-prototypical member *Enişte (Brother-in-law)* in both pre-verbal and post-verbal sentence positions. Although there is an increase in the number of responses that the non-prototypical member got in the second survey, it is still far less compared to the responses for the prototypical member, which means that the prototypical constituent grasp the attention of the hearers more easily compared to the non-prototypical one.

The Analysis of the Seventh Test Items in the Salience Surveys

Table 10: The Analysis of the Seventh Test Items in the Salience Surveys

Survey	**7. Test Item** (n=40)	**Frequency**	**Per cent**
First	Önce dolabı taşıyalım koltuğu değil. Before cupboard-Acc carry-Opt-1pl armchair-Acc Neg.cop "Let's first carry the cupboard, not the armchair."	15 / 25	37,5 / 62,5 %
Second	Önce koltuğu taşıyalım dolabı değil. Before armchair-Acc carry-Opt-1pl cupboard-Acc Neg.cop "Let's first carry the armchair, not the cupboard."	29 / 11	72,5 / 27,5 %

The use of the negation *"değil"* may decrease the stress on the second constituent, so it is possible to claim that *dolap (cupboard)* may grasp the attention of the participants more than *koltuk (armchair)* in the first application of the salience survey. Also, due to being backgrounded, this constituent may be expected to get little attention in the sentence. However, the results of the study suggested just the opposite case.

In the second application of the salience survey, there is an increase in the number of responses that the prototypical member got. 29 responses indicated that *koltuk (armchair)* is the salient constituent in the sentence. This increase is not surprising since the prototypical member is used in the pre-verbal sentence position in this sentence.

The Analysis of the Eighth Test Items in the Salience Surveys

Table 11: The Analysis of the Eighth Test Items in the Salience Surveys

Survey	**8. Test Item** (n=40)	**Freq.**	**Per cent**
First	Önce Coğrafya öğretmeniyle konuşalım sonra Matematik öğretmeniyle**.** Before geography teacher-Acc-With talk-Opt-1pl after math teacher-With "Let's first talk to the geography teacher, then the math teacher."	6 / 34	15 / 85 %
Second	Önce Matematik öğretmeniyle konuşalım sonra Coğrafya öğretmeniyle**.** Before math teacher-Acc-With talk-Opt-1pl after geography teacher-With "Let's first talk to the math teacher, then the geography teacher."	33 / 7	82,5/ 17,5 %

In the salience surveys the dominance of the prototypical member over the non-prototypical member is obvious. In the first application, only six of the forty participants stated that *Coğrafya* (*geography)* grasped their attention more than *Matematik* (*maths)*. The rest of the responses indicated the dominance of the prototypical member over the non-prototypical member. The results for the second application is very similar. 33 participants considered the prototypical member as the prominent constituent in the sentence. Thus, results can be regarded as a proof for the effectiveness of prototypical membership in attention phenomena.

The Analysis of the Ninth Test Items in the Salience Surveys

Table 12: The Analysis of the Ninth Test Items in the Salience Surveys

Survey	**9. Test Item** (n=40)	**Frequency**	**Per cent**
First	Marulu da severim domatesi de. Lettuce-Acc -and love-Aor-1sg tomatoes-Acc -and *I like both lettuce and tomatoes.*	7/ 33	17,5 / 82,5 %
Second	Domatesi de severim marulu da**.** Tomatoes-Acc -and love-Aor-1sg lettuce-Acc -and *I like both tomatoes and lettuce.*	32 / 8	80 / 20 %

This test item was shorter compared to the other items. In the first application, the constituent *Marul (lettuce*) occupies both the topic and the focus position in the sentence. Hence, without a doubt, it is in the salient sentence position, and may be expected to be more salient than *domates (tomatoes)*, which is not the focus of attention in the sentence. However, because of the prototype membership factor, the results propound just the opposite case.

In the second application of the salience survey, the number of responses that the constituents got almost remained the same even though their sentence positions were replaced. The prototypical member, *domates* (tomatoes), got remarkably higher responses compared to the non prototypical member in this sentence position as well.

The Analysis of the Tenth Test Items in the Salience Surveys

Table 13: The Analysis of the Tenth Test Items in the Salience Surveys

Survey	**10. Test Item** (n=40)	**Freq.**	**Per cent**
First	Mağazadan siyah bir palto satın aldı, sanırım bir tane de siyah pantolon. Store-Abl black one coat buy-Past, think-1sg one item -and black pants "He bought a black coat from the shop, and I think he also bought a pair of black pants."	14/ 26	35 / 65 %
Second	Mağazadan siyah bir pantolon satın aldı, sanırım bir tane de siyah palto. Store-Abl black one pants buy-Past, think-1sg one item -and black coat "He bought a pair of black pants from the shop, and I think he also bought a black coat."	29 / 11	72,5/27,5%

Pantolon (pants) was considered to the most prototypical member of the clothes category, while *palto (coat)* was regarded as the least. In the first salience survey, the responses of 26 out of 40 participants show that prototype membership is more salient than syntactic position. In the second application of the survey, the number of responses that the prototypical member got increased to 29. In total, hence, 55 responses out of 80 responses show that prototypical member is more salient than the non-prototypical member regardless of their syntactic position.

Conclusion

In this study, two factors of the attention phenomena which were put forward by Leonard Talmy: the use prototypical members of the categories, and the syntactic positions of the constituents, have been investigated. The research questions were:

1- What are the prototypical members for the categories like fruits, birds, flowers, clothes, colors, relatives, courses, vegetables, trees and furniture in Turkish?

2- Is the use of prototypical members or the position of the constituents more influential in determining the salience in Turkish sentences?

3- When the target factors are used jointly in the same sentence, does the level of salience change?

Via the prototype survey, the first research question was answered. The prototypical members of the categories like fruits, vegetables, clothes, trees etc were determined through this survey, and these data were used in the salience surveys.

The salience surveys were administered to respond the second and third research questions. In the first application of the salience survey, the factors in question were used in the sentences contrastively to determine which one is dominant over the other. At the beginning of the study, it had been foreseen that prototype membership would be more salient than the syntactic position of the constituents. That is to say that the constituents in the post-verbal sentential positions had been expected to be more salient as long as they are the prototypical members of their categories. The results of the study supported the hypothesis of the study.

In the second application of the salience survey, the syntactic positions of the target constituents were replaced. In other words, the prototypical members were used in stressed, pre-verbal sentence position whereas the non prototypical members were backgrounded. The number of responses that the constituents got remained almost the same despite the change in their sentence positions. The prototypical members got remarkably higher responses compared to the non-prototypical ones. In other words, although these factors were used jointly in the same sentence, the level of salience remained almost the same. Therefore, it can be concluded that syntactic position of the constituents has not got much influence in attention phenomena when prototype membership is also in progress.

In total, 605 out of 800 responses indicated that prototypical members are more salient than the non-prototypical constituents in the sentences. Regardless of their syntactic position, the prototypical constituents grasped the attention of the great majority of the participants. Non-prototypical members, on the other hand, could only get 195 responses out of 800. In none of the test items non-prototypical members could get higher responses compared to the prototypical ones. Thus, when the two factors of attention phenomena: prototype membership and syntactic position, are taken into consideration, it can be concluded that prototype membership is dominant over the sentential position of the constituents. Regardless of their syntactic positions, prototype members can easily grasp the attention of the hearers.

In this study only two factors of attention phenomena were taken into consideration; the other factors were kept out of the study. In the further studies, the other factors can also be investigated in order to be able to gather more information about the attention phenomena in Turkish. Attention is an important study field of cognitive linguistics. Yet, there have not been enough studies in Turkish in this research area. There should be more studies in this field to understand what kind of factors influence our attention while we are using the language.

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