101. Contextual cues and children's non-literal comprehension: An analysis on Turkish

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Abstract

This study moves from the arguments on one side that language input (specifically the adult language) has a significant part and a shaping function in the communication process with children, on the other side that this process is exclusively shaped by co-textual and contextual cues. With this aim in mind, in this study, first, the related literature on child language, non-literal comprehension, and the effect of context on non-literal comprehension were overviewed then the data collection process of the study was introduced. And then, the database that includes the transcription of the pieces of a natural conversation with children in a TV show was analyzed around three questions in terms of: i. What is the nature of the trigger questions directed to children? ii. What is the nature of the main questions directed to children? and iii. What is the role of the clues in the non-literal comprehension process of children? To achieve this end, firstly, the quantitative aspects of the database were revealed, and non-literal expressions were analyzed as cues for children to answer the related questions within specified classifications. Secondly, the overall data including the cases of successful or unsuccessful communication instances between adults and the children were interpreted within the contextual cue perspective. While the main hypothesis is that in the database of pieces of conversation that include non-literal questions directed to children, clue existence enhances the comprehension of the non-literal meaning (hence the correct answers given), the results of the study have shown that it's not the case and it is the nature of the clue not the existence that is determining.

Keywords: Non-literal meaning, non-literal comprehension, children's non-literal comprehension, child language, contextual cues

Çocuklarda imgesel anlama ve bağlam ipuçları: Türkçede bir çözümleme

Öz

Bu çalışma, yetişkin dil girdisinin çocuklarla olan iletişim sürecinde önemli ve belirleyici olduğu ve bu sürecin fiziksel ve dilsel bağlam ipuçlarınca biçimlendirildiği savlarından yola çıkar. Çalışmada bu amaçla öncelikle çocuk dili, imgesel dil işlemleme ve bağlamın imgesel dil işlemlemedeki etkisine ilişkin alanyazın gözden geçirilerek çalışmanın veri toplama süreci tanıtılmıştır. Ardından, bir televizyon programından derlenen ve doğal dil verisi içeren konuşma örnekleri çeviriyazılarak oluşturulan veritabanı, i. Çocuklara yöneltilen tetikleyici sorular nasıldır? ii. Çocuklara yöneltilen asıl

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sorular nasıldır? iii. Çocukların imgesel anlamı anlama süreçlerinde ipuçlarının rolü nedir? soruları çerçevesinde dilsel olarak çözümlenmiştir. Bu amaçla, öncelikle verinin sayısal görünümleri, belirlenen ulamlar çerçevesinde ortaya koyulmuş, ardından çocuk ve yetişkinler arası başarılı ve başarısız iletişim durumları içeren tüm veri, bağlamsal ipucu bakış açısından incelenmiştir. Çalışmanın temel öngörüsü, çocuklara yöneltilen soruların imgesel ifadeler içerdiği veride, dilsel ipucunun varlığının imgesel anlamı anlamayı kolaylaştırdığı (dolayısıyla doğru yanıt verme olasılığını artırdığı) iken, çalışmanın sonuçları ipucu varlığının böyle bir etkisi olmadığını, belirleyici olanın, ipucunun niteliği olduğunu göstermektedir.

Anahtar kelimeler: İmgesel anlam, imgesel anlam anlama, çocuklarda imgesel anlam anlama, çocuk dili, bağlam ipuçları

1. Contextual framework

1.1. Language acquisition and non-literal comprehension

Child language is an intriguing topic and each aspect of it is a hard-labored process in linguistics. It is well known that children are gifted recognizers and practitioners of intra-linguistic and extra-linguistic patterns in the communication process. According to the generative approach to language acquisition and development, children bootstrap themselves into a developed linguistic system using innate knowledge. The direction of this bootstrapping is debated though. In the context of argument structure acquisition, for instance, semantic bootstrapping defenders (e.g., Pinker, 1989) argue that children are sensitive to semantic verb classes and frequent use of a verb in the input makes the learning process easier. On the other hand, syntactic bootstrapping defenders (e.g., Gleitman, 1990) argue that they first realize the syntactic arrangement and then they bootstrap into the meaning of the verb[3]. Hence, the nature of the language input, the distributional properties of the units in that input and its weigh on the output are some of the catchy topics to study in the field. In a perspective, the structural, semantic, and pragmatic properties of the input are analyzed with the motivation that they are the reflections of the output. The data or usage-based approaches in child language acquisition process attach importance to the quantitative side of the data, occurrence, and co-occurrence of the patterns and their frequency of distribution. This alternative view maintains that general cognitive mechanisms make children be able to generalize over the input at hand (Tomasello, 2000).

The structural, semantic, pragmatic, or stylistic similarities and differences in the input and the output data are analyzed from different perspectives in different languages widely (e.g., Elman et al., 1996; MacWhinney, 1999; Tomasello, 2003). The literature in Turkish is quite limited though (e.g., Aksu Koç and Slobin, 1986; Slobin, 1987; Küntay and Slobin, 1999, Haznedar and Gavruseva, 2008). Almost all such studies that examine directly or indirectly the degree of the relationship between the input and the output base themselves on some selected units in the data and use a constructed corpus of any size of the produced utterances. To mention a few, Behrens (2006) investigates the distribution of different parts of speech (i.e., NPs, and VPs) in a child language corpus together with the parental productions. The morphosyntactic coding, and the MLU (i.e., mean length of utterance) analysis of the longitudinal data present that the widely accepted hypothesis that *language users are totally free in the choice of language structures* may not be true, and the child language data may be more bound but less autonomous. In his analysis, child language repertoire including the stylistic patterns as well as structural ones show similar distributional properties with the care-giving adults. Behrens's analysis

[3] For the acquisition of verb argument structure, see also Allen (2009).

manifests that 63% of child utterances are the same as the adults', 27% have small differences such as substitution or deletion and only 10% showed creativity (2006:22).

None of the usage or data-based studies argue that children are straight imitators who produce nothing more than they hear. Instead, there exists sensible evidence that there is a strong correlation between what they hear and what they produce, and the scope of productivity is still what is left to study. Given that the more they hear something it is more likely that they produce it, studies that include what they hear in addition to what they say are valuable ones since how much or how many times they hear a given unit, so the frequency of occurrence means a lot. Lieven reminds that not only the frequency but also the consistency of the occurrence i.e "…how systematic the input is in providing consistent cues…" is also important in form-function mapping (2010:2551). He highlights the role of "cue availability" (the frequency of the cue in the data) and "cue reliability" (the credibility of the cue in the data) (2552) which implies that the existence of a unit is not enough to be adopted by children if it does not seem reliable to them. After all, Universal Grammar, and preexistent knowledge on one side, poverty of stimulus, and the absence of linguistic data on the other, usage-based approaches submit plausible evidence that communication with children is specified by an adult participant to a certain extent.

Acquisition of pragmatic skills is also important in many respects including academic and even mathematical achievement as Bryant (2009:352) says. Pragmatic development in the language acquisition process is also highly debated since children must learn beyond the structural properties of a language to be a skilled communicator. As opposed to syntactic rules, pragmatic ones are more probabilistic. Care-givers direct children to exhibit proper pragmatic behaviors sometimes directly and sometimes indirectly. Different family members and peers have different contributions to the related process as investigated in many studies (e.g., Gleason, 1975; Malone and Guy, 1982; Leaper, 1998; Blum-Kulka and Snow, 2002). However, there are some challenges to the study of pragmatic development for some reasons in that the context is a complicated variable, the transcription process is problematic, and the coding of contextual and paralinguistic details are so as Bryant (2009:354) lists.

As outlined in the related literature[4], it is plausible to say that non-literal meaning comprehension is affected by cognitive abilities involving the level of IQ, the relative capacity of the memory, abstract thinking, and mental image creation abilities. It is found that there are also individual similarities, differences, and orientations affected by both the nature and the nurture. According to Zhou (2009), this issue is captured in different theories such as the "Working Memory Theory (Baddeley and Hitch, 1974), Salience Imbalance Theory (Ortony, 1979), Conceptual Metaphor Theory (Lakoff and Johnson, 1980), Structure Mapping Theory (Gentner, 1983), Attributive Categorization Theory (Glucksberg and Keysar, 1990), Conceptual Blending Theory (Fauconnier and Turner, 1994), Mental Spaces Theory (Fauconnier, (1994), Relevance Theory (Sperber and Wilson (1995) and the Domain Interaction Theory (Sternberg, 1995)". Each one has different orientations, but the basic argument is twofold that the non-literal comprehension is either similar or different from the literal one. A study in Turkish (İbe Akcan and Akkök, 2016) aims to understand the level of comprehension of a limited set of non-literal expressions (i.e., the metaphoric, metonymic, and humorous expressions) by Turkish native speakers using an original test and a six-point measuring scale. The result shows that the age may be an operative variable in the non-literal comprehension of Turkish language users. Bernicot et al. (2007) study the non-literal comprehension of children of different ages in terms of both the comprehension and metapragmatic explanations that they are able to provide. The units of analysis in the study are the

[4] For psycholinguistic and cognitive perspectives on metaphor processing, see also Diaz et al. (2011); Fernandez (2016); Prat (2012); Wang (2013) and Yu (2011).

indirect requests, idioms, and two types of conversational implicatures (i.e., semantic inference implicatures and sarcastic implicatures). A story completion task is used to identify their level of comprehension and metapragmatic knowledge. The results have shown that 10-year-old children did not understand the sarcastic inference but understood the idioms. On the other hand, 8-year-old children understand indirect requests and 6-year-old children understand semantic inferences (2007:2128). Sarcasm turns out to be the most difficult non-literal category for the children to comprehend[5].

1.2. Non-literal comprehension and the context

The context is broadly defined as the *physical* and the co-text is defined as the *linguistic* environment in a communicative situation where the former is mostly used to cover both concepts. Van Dijk (1989) keeps apart "possible contexts" which are infinite from the "actual contexts" that are more specific in nature (192)[6]. In this section, relevant literature on contextual effects on children's non-literal comprehension will be briefly overviewed.

This has been widely adopted in the field of psychology and linguistics and, numerous studies[7] have investigated the relationship between the context and (non)-literal comprehension, especially in (oral) discourse. While studies often focus on common issues, they differ in the variables they examine. Here, we will limit ourselves to studies based on the relationship between the context and non-literal comprehension in general. Shinjo (1986:iv) is one of the preliminary ones that investigates how context affects metaphor understanding based on "schematic view" as contextual support in metaphor comprehension and "semantic view" which highlights the processes prior to metaphor comprehension. The focus of the study is to measure the difficulty of comprehending metaphors with or without the context in two norming studies. More specifically, it compares reading times of metaphors with and without sentential contexts. The main claim is that in the presence of a supporting sentential context, the semantic priming had no effect on the comprehension of the subsequent metaphor but when the context was removed, the primes had meaningful impacts. From the psychological perspective, Rommers, Dijkstra and Bastiaansen (2013) claim that language comprehension has two major routines. The first routine covers activating word meanings and the latter includes integrating the meanings with the sentential context. In the study, they examine whether these routines are performed or not in the comprehension process. There are also growing appeals for the effects of context in children's word-learning in the brain and language perspective. Abel, Schneider and Maguire's (2017) study is one of such experimental ones. In the study, school-aged kids from 11 to 14 years old underwent a word-learning challenge while recording their electroencephalogram (EEG). Children were asked to determine the meaning of new words that are presented in triplet sentences that either offer sufficient context to facilitate word learning or not. Like Abel, Schneider, and Maguire (2017), Cieşlicka and Heredia (2011) deal with the activities of the brain and look at the roles played by the left and right hemispheres in understanding the bilinguals' figurative language comprehension as well as how context and salience interact to affect the way that the brain processes idioms differently. Other studies focus on the relationship between context and (non)-literal comprehension in oral discourse. Cacciari, Corrardini and Ferlazzo (2018) aim to reveal if and to what extent individual differences in cognitive and

5 For in depth analyses of children's non-literal comprehension not mentioned here, see also Abkarian Jones and West (1992); Ackerman (1982); Blasko and Briihl (1997); Gibbs (1987); Gibbs (1991) and Poznan (2007).

6 See also Bates (1976) and McConnell-Ginet (2017).

7 For analyses of the relationship between context and metaphor comprehension, see also Boswell (1986); Camp (2005); Condit (2002); Cureton (1990); Forceville (2017); Gibbs and Gerrig (1989); Harris et al. (2006); McCabe (1998); Nanji (1990); Neagu (2010); Newbury and Hoskins (2010); Nicaise (2010); Petterson (2017); Ritchie (2004); Ritchie (2006); Samur (2015); Semino (2013); Shinjo (1986); Slack (1980); Steen (2004); Tang (2017) and Vosniadou (1989).

personality variables are related to spoken idiom comprehension in context. Language-unimpaired participants take part in a cross-modal lexical decision study in which idiom-biasing circumstances are used to embed semantically ambiguous Italian idioms. Similarly, Beck and Weber (2016) revisit the claims made by idiomatic processing models and investigate the access to literal meaning in addition to the figurative meaning of individual words in idioms. The results of this experiment demonstrate greater priming for visual targets associated with the figurative meaning in idioms. The results also show that non-native speakers demonstrated not only online access to figurative meaning but also sensitivity to highly idiomatic situations, yet reactions to targets linked to the literal meaning of the idiom's final word are always quicker than targets related to figurative meaning. There are others (e.g., Inhoff, Lima, and Carroll, 1984; Holsinger and Kaiser, 2013) who also investigate contextual effects on metaphor comprehension in reading. Based on a "process priming" theory and a schema framework, Inhoff, Lima and Carroll (1984) explore the effects of the length of the context. The main claim is that the target expressions are easier to understand in a long context than in a short one. In contrast to targets followed by literal contexts, targets followed by metaphorical contexts are also simpler to understand. Additionally, Holsinger and Kaiser (2013) investigate the role of contextual factors in the phrasal verb processing in a self-paced reading study. They analyze how contextual biases affect the processing of ambiguous phrasal verbs in (non)-literal comprehension. They claim that no matter whether the verb sequence turns out to be literal or non-literal, comprehension proceeds without any problems when the context favors the non-literal interpretation. On the other hand, when the literal interpretation is biased by the context, processing problems occur when the verb sequence turns out to be non-literal.

Kövecses (2009:11) focuses on contextual elements that affect the processing of metaphors that are produced in actual discourses. According to him, the effects are caused by a variety of elements such as the "immediate linguistic context", "what we know about the main assets of the participants", "the physical and the social setting" and, the "immediate cultural context" while only the first two are discussed in detail. Following Lakoff and Johnson's (1980; 1999) perspective, Zhou and Heineken (2009) also aim to show that metaphor is one of the useful tools to track the experimental truth and in parallel with Ortony (1975), they try to show why metaphor is the core element in that truthness. The study has a cognitive-psychological perspective, and the experiment aims to illustrate that people's pre-existing conceptual knowledge and the context in which the metaphor arises are affected by each other to a great extent. While mentioned studies have almost generally focused on the relationship between context and non-literal comprehension, the following ones focus on a more specific part of the topic. By first discussing the context as a determinant factor in how each individual interprets the figurative language and taking into account how figurative language influences and shapes the social and cultural context, Ritchie (2006) expands the Context-Limited Simulators Theory (CLS) to encompass the variable of context more explicitly.

Lastly, a recent study by McConnell-Ginet (2017) highlights that based on the surface syntactic environment alone, traditional Transformational Grammar seeks to identify the circumstances surrounding the applicability of grammatical rules. Using a number of examples in several languages to demonstrate the impossibility of such a goal, he defends the necessity of being able to make implicit assumptions about the social context of an utterance to accurately predict the applicability of numerous syntactic rules. Panou (2013:36) also examines children's idiom production and comprehension and she lists several reasons such as "lack of strong language experiences, being unaware of linguistic conventions, not having fully developed inferential skills, and limited meta-pragmatic knowledge" for the children to appear to be the best candidates for understanding the process of idiom comprehension and production. She claims that individuals are free from any outside influences that might affect the

steps taken from the literal to the idiomatic interpretation of a sentence. Deciphering the progression from the first to the second stage can therefore reveal whether and to what extent a child has internalized the metaphorical aspect of the language.

To illuminate this uncharted area in Turkish, this study aims to provide qualitative and quantitative answers to the following questions:

1. What is the nature of the trigger questions directed to children?
2. What is the nature of the main questions directed to children?
3. What is the role of the clues in the non-literal comprehension of children?

To answer these questions, firstly, the quantitative aspects of the database will be presented, and the overall data will be interpreted as the cases of successful or unsuccessful communication instances between adults and the children within the contextual cue perspective. The study is based on the hypothesis that in the constructed conversational database in which there are non-literal questions directed to children, clue existence increases the comprehension and the existence of correct answers independent of the characteristics of the question and the cue(s).

Although there are many more studies in both Turkish linguistics and in other languages about different aspects of non-literal elements, their comprehension and their use, current study is significant in several aspects. First, it is the first attempt that makes analyses on such transcribed natural language data in Turkish. Second, it bases itself on an original observation that some clues in such data lead the speakers comprehend such expressions (or not) and that the analyses are based on original categorizations (of the questions and answers in the data) that fit to all pieces of conversation in the database.

2. Methodology

In the light of the literature above, the knowledge of the context is certainly essential to process both literal and nonliteral information by adults and children. This section explains the data and the limitations of the study presenting the checklists used throughout the study.

2.1. The data of the study

In this research, the database is constructed by natural pieces of conversation between adults and preschool children in a question-answer format in 34 episodes targeted to children of a TV show Little Pitchers Have Big Ears (Tr. Çocuktan Al Haberi) appears in a Turkish national TV channel which was freely accessible and downloadable on the internet. The contents of the program are briefly as follows: There is a presenter (different famous presenters for some episodes) who asks the questions to +/- nine children between the ages of three and five (which is the preschool age in Turkey) and there are +/- three competitors (sometimes famous figures) who try to guess whether the children gave the correct answer or not. There is no one around to help children give the correct answer and the conversation is more like a chit-chat rather than a query.

The starting point of the research is the observation that the questions are challenging for children because most of them (not all) contain non-literal meaning expected to be unfamiliar to most children of that age. To give an example:

1. **The Presenter:** What makes you happy most?
2. **The Child:** Mmmmmm. A toy!
3. **The Presenter:** What kind of toy makes you happy most?
4. **The Child:** Mmmmmm. The one with a princess costume.
5. **The Presenter:** Great! Well…. What do you think about this? What does it mean to be *as happy as a box of birds*?
6. EITHER:
   The Child: It means that I am very very happy.
   (Comprehends and interprets the non-literal meaning. (Evaluated as *correct*))
   OR:
   The Child: It means that happy birds can be put into a box.
   (Comprehends and interprets literally. (Evaluated as *incorrect*))

The initial observation was that the trigger questions were sometimes giving clues to children for non-literal meaning which led them to give the correct answer such as the first and the third questions in the dialog above and sometimes not such as the seventh and ninth questions below:

7. **The Presenter:** Do you have any sisters or brothers?
8. **The Child:** Yes, I have a sister.
9. **The Presenter:** Do you love her?
10. **The Child:** Mmmmm. No, I don't
11. **The Presenter:** Okay. What does it mean *to sit on the fence*? Do you know it?
    EITHER:
    The Child: It means that you cannot make up your mind.
    (Comprehends and interprets the non-literal meaning. (Evaluated as *correct*))

    OR:
    The Child: It means that it's high. Do not climb on it.
    (Comprehends and interprets literally. (Evaluated as *incorrect*))

The term trigger question will be adopted throughout the study as an accepted term used mostly in psycholinguistic research (Dikken, 2010:8; Paradis, 2013:8 to mention a few) to refer to a word or phrase or an expression of any length which triggers or activates another word/phrase/expression. Here the trigger question is the one covertly intended to activate the target area of knowledge that the following question (which is referred to as the main question) is about and indicates no methodological implication.

The episodes were watched, simultaneously transcribed, and analyzed using the checklists below; Table 1 is for the analysis of the trigger questions, Table 2 stands for the main question, and Table 3 is used for the child's answer.

Table 1. The Checklist for the Trigger Question(s)

What is the trigger question(s)/ expression(s)?	**Is there a contextual cue or not? (Yes OR No)**	**What kind of a cue is it?**
.....	Y/N	.....

Table 2. The Checklist for the Main Question(s)

What is the main question?	**Is there a non-literal meaning or not? (Yes OR No)**	**What is the non-literal meaning?**	**What is the type of non-literal meaning?**
.....	Y/N	.....	.....

Table 3. The Checklist for the Children's Answer(s)

What is the child's answer?	**Is the answer evaluated as correct or incorrect? (C OR I)**
.....	C/I

So, the analyses were performed according to three main categories:

1. About the trigger question(s)
2. About the main question(s)
3. About the answer(s)

The specific questions for the analyses of the above categories are:

1. The steps of analysis of the *trigger question(s)* is/are as to:
   1.1. whether there is a trigger question or not
   1.2. whether there is a contextual cue in the trigger question or not
   1.3. what kind of a cue this is
2. The steps of analysis of the *main question(s)* is/are as to:
2.1. what the main question(s) is/are
2.2. whether there is non-literal meaning in the main question(s) or not
2.3. what the non-literal meaning is if there is
2.4. what the type of non-literal meaning is
3. The steps of analysis of the *children's answer(s)* is/are as to:
   3.1. whether the answer is evaluated as correct or incorrect
   3.2. whether there is a correlation between the cues and the correct answers

2.2. Limitations of the study

The first limitation of the study is that the conversation is in fact not a natural one (i.e., the children's own environment) which may cause them to feel that they should give the correct answer in some way, or they should use the appropriate or polite forms for appreciation or approval. The second is that there was not any chance to code the demographical information of the participants which may break the homogeneity of the group. Apart from these, adult-children conversation samples seem near-natural and enjoyable and have a moderate amount of language data that is worth and well-suited for an analysis from the mentioned perspectives. Thirdly, the quantitative results were presented as raw frequency values and in percentages where necessary and interpreted accordingly. The co-existence of a cue and a correct answer were evaluated based on these frequencies and percentages too, and statistical analysis

was not practiced upon. Lastly the transcription of conversation of any kind has methodological complexions open to be discussed. Coultas (2003:17) explores some of the issues around so-called "live data transcripts" of "real" speech that aim to record and represent pieces of language as accurately as possible in detail and says that; i. transcripts are texts in themselves. ii. speakers change the ways in which they use language depending on a range of contextual factors iii. not all members of a 'group' will use language in the same way and iv. interpretations of spoken texts are likely to differ depending on the focus of the researcher. As another limitation, the term "trigger question" does not have a methodological implication and simply used to refer to the first question that is related to the second one in one way or the other. As the last limitation, the transcriptions in the current study are not based on a specific transcription model, and simply the questions and the answers within the conversations are transcribed with no further annotations.

3. Findings and discussion

The database consists of the transcription of question-and-answer conversations between the presenter and a chosen set of preschoolers in a chit-chat format. Randomly chosen 34 episodes of the mentioned program were analyzed according to our research questions. Table 4 shows the number of words in the whole database:

Table 4. Word Counts in the Database

Word Counts in the Database	
Trigger Questions	7,152 words
Main Questions	5,597 words
Answers to the Main Questions	13,013 words
TOTAL	**25,762 words**

The analyses show that there are 919 pieces of conversation in the data and 144 different main questions directed to children. The same questions are directed to different children who cannot hear the answer of each other. The findings related to the questions and the answers are presented below.

3.1. Analysis of the trigger questions

What we mean by the trigger question here is that the question which comes before the main question directed to children and most of the time it includes a kind of "clue" sometimes serving as a mental access area by preparing him/her to answer, sometimes relaxing the children to make them answer more comfortably and sometimes just for chatting as in the examples 1, 2 and 3:[8]

(1)

1st question (the trigger question): Honey, what do you think is the lightest thing in the world?
2nd question (the main question): Well, then what does it mean "to take something lightly"?
Child's answer: It means carrying something light.
The answer was evaluated as *incorrect*.

(2)

1st question (the trigger question): Do you have cats? What do cats eat?

[8] The translation of idiomatic expressions from Turkish into English is problematic in itself. One to one mappings between two languages rarely occur which is the reason of not presenting most of the idiomatic expressions here.

2nd question (the main question): What does it mean "to be like a cat as innocent as just swallowed the family parrot"?
Child's answer: They don't eat that because they get fat.
The answer was evaluated as *incorrect*.

(3)

1st question (the trigger question): Do you talk about the same thing again and again if that's important for you honey?
2nd question (the main question): What does it mean "to highlight something"?
Child's answer: Of course, I highlight something. To make sure that everyone knows this.
The answer was evaluated as *correct*.

In some of the cases, there is a trigger question before the main question as in (4) and sometimes not as in (5):

(4)

1st question (the trigger question): Do you think that we sometimes think about the same thing at the same time?
2nd question (the main question): What does "great minds think alike" mean?

(5)

1st question (the trigger question): -
2nd question (the main question): Do grandpas or grandmas tell a tale better?

In the data, the frequency of whether there is a trigger question in 919 pieces of conversation or not is presented in Table 5:

Table 5. Trigger Question: Exists or not

Trigger Question Existence	
Yes	**No**
f	***f***
737	182

In some of the cases, the trigger questions give clues about the answer to the main question as in (6) and sometimes not as in (7) while it may have different ways of doing this which will be discussed later.

(6)

1st question (the trigger question): Who makes honey?
2nd question (the main question): What does it mean if I say, "free vinegar is sweeter than honey"?

(7)

1st question (the trigger question): Do sharks live in forests?
2nd question (the main question): Do you think that children or adults love to see new places more?

The frequency of conversations that include trigger questions with a clue or not is in Table 6 below:

Table 6. Trigger Question: There is a clue or not

Clue Existence	
Yes	**No**
f	***f***
720	199
919	

When we analyze the clues, we are able to grasp the types of the clues under three main groups as in Table 7 below:

Table 7. Trigger Question: The type of the clue

Clue Type		
Activation of pre-knowledge	**Making an abstract concept concrete**	**Giving an explanation or question with synonymy, antonymy, homonymy**
f	***f***	***f***
629	53	38

The most frequent type of cue is the activation of a related area of *pre-knowledge* before the main question as exemplified in the following questions below:

(8)

1st question (the trigger question): What do you do if someone blows out your birthday cake's candle?
2nd question (the main question): Are the birthdays of adults celebrated?

(9)

1st question (the trigger question): Do sisters or brothers get along well with each other?
2nd question (the main question): What does it mean "to have a fall out with someone"?

(10)

1st question (the trigger question): Do you help your mom in the housework?
2nd question (the main question): Are streets cleaned every day just like houses?

(11)

1st question (the trigger question): Why do you think that Superman is so stronger? Is it because he does exercise every day?
2nd question (the main question): Is Superman or Rapunzel's hair stronger?

The second frequent category of cues is *giving an explanation* or *question* that includes *synonymy*, *antonymy*, or *homonymy* related to the target concept as in the following examples:

(12)

1st question (the trigger question): Who is the most "hardworking person" in your family?
2nd question (the main question): What does "jack-of-all-trades" mean?

(13)

1st question (the trigger question): Who is the most "cheerful person" you've ever seen?
2nd question (the main question): What does it mean to brighten up?

(14)

1st question (the trigger question): What happens when "something flames"?
2nd question (the main question): What happens when "someone flames up"?

(15)

1st question (the trigger question): Do you think of a home without a carpet?
2nd question (the main question): What does a "football field carpet" mean?

In the third category, the presenter gives a clue about the main question which is about an abstract concept by making it more concrete for the child to better comprehend as in the examples (16), (17), (18) and (19):

(16)

1st question (the trigger question): Do we have belts only in the car?
2nd question (the main question): What does it mean to "tighten one's belts"?

(17)

1st question (the trigger question): Do you know the job of our heart in our body?
2nd question (the main question): What does it mean to "win one's heart"?

(18)

1st question (the trigger question): Where exactly are the roots of trees?
2nd question (the main question): What does someone do when she "puts down roots" on somewhere?

(19)

1st question (the trigger question): Do you think that it's a problem that some people talk too much?
2nd question (the main question): What does it mean "to cut a long story short"?

To sum up, we can say that all pieces of conversation mostly include the trigger questions, and the trigger questions usually involve clues, and the types of the trigger questions are frequently shaped by activating pre-knowledge.

3.2. Analysis of the main questions

After the extraction of the main question from the whole conversation, these main questions were firstly analyzed in terms of whether there is non-literal meaning as in (20) or not as in (21). The frequencies are shown then in the Table 8:

(20)

2nd question (the main question): What does it mean "to take someone to one's bosom"?

(21)

2nd question (the main question): Which one is more difficult? To drive a bicycle or to bake a cake?

Table 8. Main Question: Non-literal Meaning or not

Non-literal Meaning Existence	
Yes	**No**
f	***f***
133	786
919	

As Table 9 shows, the main questions with non-literal meaning are mostly directed to the children with a clue as exemplified in (22):

(22)

1st question (the trigger question): Have you ever "hit on something at home"?
2nd question (the main question): What does it mean to "hit on the answer quickly"?

Table 9. Main Question: Non-literal ones with a Clue or not

Non-literal with a Clue	
Yes	**No**
f	***f***
106	27
133	

The non-literal elements in the main questions were detected and listed then they were analyzed according to the type of the non-literal part. The analysis shows that the contents of these expressions are as in Table 10:

Table 10. Main Question: Non-literal Type

Non-literal Type		
Idiom	**Compound**	**Proverb**
f	***f***	***f***
101	18	8
127		

As seen, the most frequently used non-literal expressions are *idiomatic* as in examples (22) and (23):

(22)

2nd question (the main question): What happens if someone "comes out of the blue"?
Non-literal part: To come out of the blue
Non-literal type: Idiom

(23)

2nd question (the main question): What happens if someone "has a finger in the pie"?
Non-literal part: To have one's finger in the pie

Non-literal type: Idiom

The second most frequently used non-literal expressions are in a compound form as in the examples (24) and (25):

(24)
2nd question (the main question): What kind of a person is a "warhorse"?
Non-literal part: Warhorse
Non-literal type: Compound

(25)
2nd question (the main question): Who is a "skin diver"?
Non-literal part: Skin diver
Non-literal type: Compound

The last category of non-literal expressions is a proverb as in the examples (26) and (27):

(26)
2nd question (the main question): What shouldn't we do when we never "send a boy to do a man's job"?
Non-literal part: Never send a boy to do a man's job.
Non-literal type: Proverb

(27)
2nd question (the main question): What does "getting out of the kitchen if we can't stand the heat" mean?
Non-literal part: If you can't stand the heat get out of the kitchen
Non-literal type: Proverb

In brief, we are able to conclude that most of the main questions do not include non-literal meaning, but the ones that involve non-literal meaning commonly have clues. It is also possible to say that non-literal types of the main questions are mostly structured by idioms in contrast to compounds and proverbs.

3.3. Analysis of the children's answers

In this section, the answers of the children to the main questions are analyzed and explained. The answers overviewed show that there were sometimes totally and sometimes partially either *correct* or *incorrect* in terms of the comprehension of the target expressions or concepts. Some explanations fully reflect the comprehension level of the children, and some do not as well as some literal and non-literal examples or implications provided by them. Here the answers will not be evaluated as *correct* or *incorrect* with self-specified criteria but the evaluation of the presenter during the conversation will readily be accepted and used as the related tags.

Table 11 shows the frequency of the correct and incorrect answers to all questions. As seen in Table 11, children in all of the questions, are generally successful (65%) in giving the correct answer.

Table 11. Children's Answers to *All Questions*: Correct or Incorrect

Correct	**Incorrect**
***f* - %**	***f* - %**
600	319
65%	35%
919	
100%	

Table 12 shows the distribution of the answers to the questions with and without a clue. When we look at the questions when the presenter gives a clue (with the help of a pre-question) we see that children answer more correctly (64%), when there is not a clue, they also answer correctly more than they answer incorrectly (71%). So, in terms of all questions, clues do not play an important role in giving the correct answer.

Table 12. Children's Answers to the *Questions with/without a Clue*: Correct or Incorrect

All Questions			
with a Clue		**without a Clue**	
Correct	**Incorrect**	**Correct**	**Incorrect**
***f* – %**	***f* - %**	***f* – %**	***f* - %**
459	256	141	58
64%	36%	71%	29%
715		199	
100%		100%	

Table 13 shows the distribution of the answers *specific to the non-literal questions* with or without clues. As seen in Table 13, if there is a clue in a non-literal question, children mostly respond incorrectly (54%). As the table shows, if there is not a clue in a non-literal question, they respond more correctly (78%). So, the given clues seem not to be any helpful in the non-literal comprehension process.

Table 13. Children's Answers to Non-literal *Questions with/without a Clue*: Correct or Incorrect

Non-literal Questions			
with a Clue		**without a Clue**	
Correct	**Incorrect**	**Correct**	**Incorrect**
***f* - %**	***f* - %**	***f* - %**	***f* - %**
46	55	21	6
46%	54%	78%	22%
101		27	
100%		100%	

The result that clues do not assist the children contrary to our initial hypothesis, necessitates going back to the nature of the clues. The clues in the trigger questions were of three types. They either:

1. activate children's pre-knowledge about the incoming main question or
2. make an abstract incoming question concrete or
3. give an explanation or sometimes ask a question that includes a synonymy, antonymy, or homonymy related to the target concept

However, in the reanalysis of the clues, it was seen that there are misleading clues that are hard to be underestimated. Related to the tree categories above, examples from 29 to 31 can be noted for this case:

(29) Pre-knowledge:
1st question (the trigger question): Do you like fruits?
2nd question (the main question): What does it mean "to have her face grapy"?
Child's answer: Does our face look like a grape when we're sad?
The answer was evaluated as *incorrect*.

(30) Concrete:
1st question (the trigger question): When do we use pills?
2nd question (the main question): What does it mean "to sugar the pill"?
Child's answer: I don't sugar them. I don't touch them.
The answer was evaluated as *incorrect*.

(31) Explanation/question/synonymy/antonymy/homonymy:
1st question (the trigger question): What do we need to have "to stick something to somewhere"?
2nd question (the main question): What does it mean "to stick an answer"?
Child's answer: Nothing is broken at home. We don't need to stick it.
The answer was evaluated as *incorrect*.

When we reanalyze the misleading properties of the trigger questions with a clue for non-literal main questions, we see that almost half of the non-literal questions have a misleading clue. Table 14 shows the frequencies:

Table 14. Misleading Trigger Questions with a Clue in Non-literal Main Questions

Misleading Clue	
Exists	**Not exists**
***f* - %**	***f* - %**
49	57
46%	54%
106	

When we evaluate our findings together with our research questions, we can say that the broad implication of the present research is that the trigger questions are common components of all kinds of conversation directed to children. More specifically, pieces of conversation in our database mainly consist of two different questions. One of which is the "trigger questions" that activate the related domain, and most of the time, they contain a kind of clue for the children to interpret the coming non-literal meaning. They frequently contain clues, and they are shaped by activating the pre-knowledge. For our second research question, the main questions mostly include non-literal meaning of different types, and each of which are analyzed qualitatively and quantitatively in the related section. In the light of our findings for this research question, it is plausible to say that non-literal meaning is not typically a part of the main questions, but when it is, there are usually some clues. Another promising finding is related to our third research question. The existence of a clue in the questions does not guarantee the correct answer of the children. Even sometimes they mislead the children which make it hard to be called as "clues". Therefore, it will not be wrong to conclude that more in-depth investigations are needed for

clues in the non-literal comprehension of children in different languages. The following section will overview all of the findings of the current study.

4. Conclusion

This study starts with the idea that contextual clues are important in the comprehension of both literal and non-literal meaning as is known regardless of the specific characteristics of the communication. With that point as the start, a brief review of literature about the importance of input in the language acquisition and development processes together with the non-literal comprehension process was presented and then methodological details of the study were revealed. The second section went over the findings of the study and the discussion related to it. The main hypothesis of the study was that in the database consisting of conversational excerpts (that include literal and non-literal questions directed to children regardless of the nature of the questions and clues) clue existence helps the comprehension of non-literal meaning. The results have shown that this may not be the case for any and every communicative situation. The higher frequency of the incorrect answers of children to the questions that include a different kind of clues made us reanalyze the nature of the clue once again, and turns out that an unignorable part of the trigger question data (46% of all non-literal ones) includes misleading clues that either activate an unrelated area of pre-knowledge or unnecessarily send to a concrete domain for an abstract concept or provide an unrelated explanation or homonymous lexical item that lead the child to an incorrect answer. In parallel with the Holsinger and Kaiser' (2013) study mentioned above, if the context biases any expression regardless of whether its literal-or non-literal, it supports the interpretation. While our main hypothesis was also that in the database of pieces of conversation that include non-literal questions directed to children, clue existence would enhance the comprehension of the non-literal meaning (hence the correct answers given), the results of the study showed that was not the case and it was the nature of the clue not the existence that was determining. Here the unforeseeable result seems to be due to the existence of misleading clues which promotes us to plan a further study on the pragmatic properties of the clues in more depth and the correlation between the characteristics of the clue and the characteristics of the obtained response in connection with it.

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