

## LOCATIVE PREPOSITIONS: A STUDY ON IRANIAN CHILDREN ACQUIRING PERSIAN AS THEIR FIRST LANGUAGE

Mehdi Jowkar, Mohammad Ebrahim Moghaddasi, Fatemeh Sadat Mirshamsi

Department of English, Mamasani Branch, Islamic Azad University, Mamasani, & Shiraz Branch, Islamic Azad University, Shiraz, IRAN.

Jowkar\_mehdi@yahoo.com, mohammad.moghaddasi91@gmail.com,  
f.mirshamsi@gmail.com

### ABSTRACT

*The issue of children's acquisition of word orders of various structures among different languages has always been a hot topic and has been the subject of a challenging debate. Various types are reported for locative alternations in English than Persian. Therefore, the current study focuses on the probability of using locative construction alternation among Iranian children learning Persian as their first language. In fact, we have tried to study the prepositions: in, on, under, behind, in front of, above, between, next to and near when part of complex prepositions and when conveying location alone and hence, concluding that which ones may be acquired first. To this end, 30 children, both male and female aging from 3 to 6 years old were chosen as the participants of the study. The researchers have employed an elicitation technique in which some of the most frequently used locative prepositions are required to be utilized; they used some pictures and motivated the subjects to utter what they could perceive. Then, after analyzing the collected data it was found that there exists a significant difference in learning locative prepositions by Iranian children in acquiring their first language. Results showed that children found difficulties in the functional use of prepositions. Also, the findings suggested that the acquisition of locative prepositions in childhood is not complete at the time of their appearance in speech. This is a complex process which is not completed until approximately age 7.*

**Keywords:** Prepositions, locative prepositions, Iranian children, first language, Persian language

### INTRODUCTION

The process of first language acquisition has been the focus of attention of many researchers during the last decades (Mahshie, 1997; French, 2007). Moreover, different methods, approaches, and theories have been published among which there are some similarities and differences in the findings and experiences. Behaviorists believed in child's language acquisition through operant conditioning, reinforced by reward (a desired response by others). This view toward language learning was strongly attacked by Chomsky (1959) by offering LAD. Chomsky (1959) found a new strategy for child language learning by opposing the behavioristic view that child's mind is not a clear slate with no preconceived notion about language. As he argues, Skinner did not account for the syntactic knowledge of language. Furthermore, Chomsky speaks in favor of mathematical approach, based on syntax, to child's language acquisition and refuses language acquisition through operant conditioning. Later, he introduced Universal Grammar (Cook & Newson, 1996) with some principles and

parameters, arguing that there are some common features in all languages (NP) and some variations too (head first/ last). From then on, acquisition of different aspects of language, specifically grammar and syntax, has been emphasized by researchers and practitioners, such as morphological order of acquisition, statistical language learning and the like.

Statistically, in a corpus of one million English words, one in ten words is a preposition (Fang, 2000). Yet, despite their frequent occurrence, there is no generally accepted account of this category and its characteristics (Littlefield, 2003). At best, prepositions represent a problematic, contradictory category for theories of syntax. On the one hand, prepositions are held to be one of the four major lexical categories along with nouns, verbs and adjectives, and are contrasted with the functional categories like determiners, inflection and case. On the other hand, they are taken to be a closed class, a characteristic of functional categories and not lexical ones. Prepositions are also argued to add a highly salient semantic content to sentences. Yet, despite these basic, contradictory characteristics, prepositions are taken by most fields of language research (child language acquisition, speech language pathology, aphasia, literacy, and much of syntax) to be a single, homogeneous category.

Furthermore, regarding the role of prepositions in first language acquisition, it is worth mentioning that prepositions are sensitive linguistic elements that are culturally acceptable and very well known to all members of the same linguistic community. In fact, due to features of prepositions, children of any linguistic community acquire them with delay. Children, first of all have to acquire semantic cognitive integrity in their own language, respectively, they have to learn marks of the system before they are able to use them. It is obvious that marks are complex; as such children's role is twofold. They have to study content of each mark and then acquire the possibility of their combination. It is still unknown how these two elements are acquired.

### **Prepositions as a Problematic Issue**

Prepositions have generally been treated as a single category in linguistic theories (Rauh, 1993), and according to Jackendoff (1973), it has been generally accepted that they belong to one of the four major lexical categories, along with nouns, verbs, and adjectives. However, there are problems with a unified approach to prepositions.

Taking into account the problematic and challenging nature of prepositions, it seems necessary to point out some major issues in this regard. First, their characterization as a lexical category is problematic. All of the other three major lexical categories (N, V, Adj) are open-class categories, and thus are characterized by a high rate of membership and are readily able to add new members. Prepositions, however, are taken to be a closed class, with a limited and small membership.

However, the categorization of prepositions as a closed class is awkward. Their membership is taken to range from 50 – 60 members, as found in traditional grammars of English (Warriner & Griffith, 1977; Pollock, Sheridan, *et.al.*, 1961), to 248, as found in a corpus study of prepositions (Fang, 2000). Moreover, it is widely accepted that new prepositions can be added to the class (Kortmann & Konig, 1992; Vincent, 1999), albeit at a very slow rate.

Finally, there are contradictions within the category of prepositions itself. Most prepositions express semantic relations, as realized in their assignment of theta roles. But a few, like *of* and (arguably) the dative *to* seem to be purely syntactic; they are required for Case assignment, but do not add any thematic properties to the structure. In a parallel observation, the majority of prepositions assigns Case structurally (as do verbs), while the purely syntactic ones assign Case inherently (cf. Ura (2001) for a concise review of Case assignment in Generative Grammar).

Also, it should be reminded that the factors determining the acquisition of prepositions would be linguistic rather than cognitive, and linked to language use and frequency of input (Rice, 1999). In the literature on the acquisition of English, prepositions are said to appear as soon as a child can produce two word utterances (Kochan et al, 2007). These first prepositions seem to be primarily spatial localizers and are part of the first twenty lexical items learnt by English speaking children (Brown, 1973). The question that pops up here is that is this order of emergence in acquisition true in English, can we assume that this is a general process?.

Concerning the definition of locatives or what is usually called Locative prepositions, it is worth mentioning that they actually specify spatial relationships between a small subset of the characteristics of the objects indicated by the expressions which are connected by the preposition. However, the meaning of prepositions can be analyzed, first, with the concepts of function which pick out relevant characteristics to be related, and the second, with the related concept describing the special relation between the values of the functions. The resulting complex relation marker will thus have the form (H) to head, (RP) to Referential Point, and (R) relationship, (L) location. All these signs connect objects and places.

Regarding the possible relations among each part, it is tried to explain the relations through the explanation of some main key concepts plus exemplification. L (location), H (head), RP (reference point). (RP is the location of H). L (general location) is the relation of the object and place that does not change when RP is the location of H. RP can be a location, volume, surface, or a line that defines the exact location of H. So, L is the concept of general location, see the following example; "Mr. Jones's home is located in Cambridge". Mr. Jones's home is the H (head), in is preposition of location and Cambridge is the general location. 2a) (H, RP) - (H is contiguous with the surface of RP). Contiguousness establishes relationship between the surface of H (head) and RP (Referential Point). The relation of contiguousness between the head and the referential point does not change in any way the shape of these two forms.

This concept is applicable when contact or proximity is a part of two forms, and not when contact or proximity is only one point. 2b) The split of H from RP means detachment of H from RP. The contrast between contiguousness and detachment serves to make a distinction between prepositions, such as: "on", "near", "on the top of", and "Above". Example, if we put a pencil horizontally on a table, normally it contacts its surface, it is contiguous with the surface of the table, then we would say, "The pencil on the table", or "The pencil on top of the table ". But, if we stick a thread on ceiling and then we tie tightly the pen with the end of the thread, (in case it does not touch the table's surface) then, we would say, "The pencil is over the table".

### Location in Persian

Firstly, it seems quite helpful to notice that location may be expressed in a number of ways in Persian. In this regard, explaining and exemplifying the place and use of prepositions in Persian, their order and use can be analyzed in the following manner.

Firstly, it is significant to point out the fact that complex Ps consist of an element denoting location, followed by the 'small' Ps *dar*, *bar* or *zir* introducing their complement.

Also, it is noticeable that some locatives can be followed either by *dar*, *ruye* or by *zir*, with difference in meaning. By contrast, it makes a difference whether *dar*, *ruye* or *zir* is used indicating that Ps contribute semantic input.

Let's start with the preposition "dar" in Farsi and see how it works and what order it follows in a given structure of each sentence.

حرف اضافه "در" :

Ahmad dar ketâbxâne dars mi-xânad.

Ahmad in library lesson IMPR- study.

‘Ahmad studies in the library.’

Hasan dust-aš râ dar dânešgâh did.

Hasan friend-his DO in university saw.

‘Hasan saw his friend in the university.’

In this regard, it is crystal clear that there are certain semantic categories in all languages. However, the way languages of the world express these categories in their syntax, is different. The main semantic distinctions found in all languages include predicates, their arguments and non-argument elements which are defined and described briefly here.

Predicates describe the event or situation and is often (not always) expressed by a verb.

Arguments represent the participants in that action or event and are referring expressions that are often expressed by noun phrases. Non-argument elements bear temporal or locational information about an event or situation.

The first thing to do is to locate the predicate. The verb *did* is the semantic predicate and this will form the syntactic nucleus of the sentence, *hasan* and *dustaš* are its arguments and these three constituents form the core of the sentence. The optional locative prepositional phrase *dar dânešgâh* which places the event in space is in the syntactic periphery. It is worth noticing that this analysis is not based on word class (noun, verb, etc.), but rather on function.

The syntactic arguments that appear in the core are called core arguments which may be either direct or oblique. The direct core arguments are those that don't come along with prepositions in languages like English. The oblique core arguments are determined by prepositions.

حرف اضافه ي "پهلوی / پهلو":

می رم پهلو چرخ فلک  
miram pahlū čarxfalak.  
می روم - پهلو - چرخ فلک  
حرف اضافه ي "در":  
tu xune ast.  
در - خانه - است

tu pâyeeen e sandali e!  
در - پایین - - صندلی-است

حرف اضافه ي "روی/رو":

ruy e in qurbâq an.  
روی - این- قورباغ- هست

kife ruy e miz e.  
کیف- روی- - - میز-است

حرف اضافه ي "توی / تو":

mâhi dâre tu howz âb mixore  
ماهی-دارد-داخل-حوض-آب-می خورد

juje tu âsemun raft  
جوجه-در-آسمان-رفت  
qatre bârun oftâd tu dasteš.  
قطره-باران-افتاد-داخل-دستش

mixân tuš çâyee berizan?  
خواهدمی-داخلش-چایی-بریزند  
juje tu hamum e.  
جوجه-در-حمام-است

حرف اضافه ی "زیر":  
zir e sandal dâre jikjik mikone.  
زیر-صندلی-دارد-جیکجیک-می کند

zir e miz.  
زیر-میز  
حرف اضافه ی "از":  
az tâb xord ru zamin.  
از-تاب-خورد-روی-زمین

az bâloy sorsore oftâd.  
از-بالای-سرسره-افتاد

As it was seen in the above instances of Persian prepositions and their order and function in sentences, it could be concluded that Persian locative preposition /dar/ is roughly equivalent to English in and at. It is used so extensively that according to pldb1 corpus, it is the second most frequent word in Persian, preceded only by /va/ which means *and*. Also, to give more proof of the extended use of spatial prepositions, the third and fourth most frequent words in Persian according to pldb corpus, following /dar/ are /be/ and /az/, roughly equivalent to *to* and *from* respectively.

Moreover, this paper is a synthesis of a contrastive corpus-based study of Persian/English acquisition of the grammatical category of locative prepositions in which we set forth the hypothesis that prepositions may be analyzed as a pragmatic tool in early acquisition. Our aim is to study the emergence and development of prepositions used by children between the ages of 3 and 6 years old in spontaneous dialogue.

The next section of the prospectus will provide a brief review of the relevant literature regarding the category of prepositions, the acquisition of lexical and functional categories, and the predictions that can be made for prepositions in acquisition. Then the researchers will focus on the significance of the study, the methodology and the findings. Finally, they will analyze the gathered data followed by discussion and the conclusion.

## LITERATURE REVIEW

Concerning the background and related literature to the topic, it should be pointed out that the bulk of research in this specific domain is really sparse Morgenstern and Sekali (2009) found that on the syntactic level of analysis, prepositions are classified as being either semantically colored with a primary lexical and spatial value or semantically weak and marking syntactic

function within the prepositional phrase. In this opposition, quantitative observations of emerging prepositions show that French and English children do not behave in the same way, with a clear priority of spatial first prepositions for the English children while the French children use mainly functional ones first.

Also, regarding the notion of prepositional phrase, Alexaki et al. (2009) investigated the acquisition of Greek Prepositional Phrases. They focused on locative prepositions, because they believed that these prepositions may combine a lexical and a functional element, hence, can offer insights for both the acquisition and the syntactic status of prepositions from this perspective. The researchers found that both, *se* and *apo*, appear after the lexical part of complex prepositions, and fully develop after age three. They compare *se* and *apo* when part of complex prepositions and when conveying location/direction alone and conclude that the former may be acquired after the latter. *Apo* is also encountered much earlier alone, but only preceding locative adverbials.

In the same regard, Avni Islami (2014) studied English and Albanian prepositions of place. The results showed that English and Albanian prepositions of place differ very much among them, since the Albanian language propositions are more polysemious.

## **METHOD**

### **Participants**

In this study, the researchers collected the data from thirty Farsi speaking children aged between 3 to 6 in Iran. These children were capable of perceiving and producing utterances in their mother tongue, Farsi, with no difficulty. Both girls and boys were included in the study to achieve a more comprehensive conclusion, and to neutralize any possible assumption that one special gender acquires his/her first language earlier than the other.

### **Procedure**

The researchers used an elicitation technique in this study by showing some pictures focusing on prepositions (locative). The researchers provided an interesting and encouraging environment for the children to increase their willingness in the elicitation procedure. The children were given adequate time to express their own ideas about the intended pictures. The data were recorded in both written form and audio file for a better analysis. The researchers asked the children to produce what they see and perceive from the pictures. The pictures necessitated the production of locative prepositions. In cases the children had problem(s) with explaining the pictures, the researchers elaborated on them and encouraged the participants to produce their own utterances, by rising questions like ‘where is the ball? ‘Where is the book’?’ and the like. If necessary, the experimenters provided the children with alternative ways of using prepositions. They were, also, given a chance of uttering as many sentences as possible.

### **Instrument**

The researchers used pictures in which something was somewhere. They asked the children to utter what they can understand from the pictures. Elicitation technique was utilized and the participants were motivated to provide a sentence; these sentences required the production of locative prepositions. During the elicitation, the children were not told if their responses were correct or not. Whenever necessary, the researchers provided different forms of prepositions in Persian and asked the participants, individually, to choose the form(s) that were preferable to the child. Therefore, an elicitation technique, by using pictures related to locative prepositions, was employed in this study.

**DATA ANALYSIS**

**Table 1. Worksheet for locative prepositions elicitation (3-4 year old)**

S. No.	Male/ Female	age	in	on	under	behind	in front of	above	between	next to	near
1	F	3-4	✓	✓	-	-	-	-	-	-	-
2	F	3-4	✓	✓	✓	-	-	-	-	✓	-
3	F	3-4	✓	✓	✓	-	-	-	-	-	-
4	F	3-4	✓	-	-	-	-	-	-	-	-
5	F	3-4	✓	✓	-	-	-	-	-	-	-
6	M	3-4	✓	-	-	-	-	-	-	-	-
7	M	3-4	✓	✓	-	-	-	-	-	✓	-
8	M	3-4	✓	✓	-	-	-	-	-	✓	-
9	M	3-4	✓	✓	-	-	-	-	-	-	-
10	M	3-4	✓	✓	-	-	-	-	-	-	-

In presenting the data, we have chosen to translate the phrases and sentences containing locative prepositions. The obtained results from this study are solely based on the children's responses elicited from the children by the researcher. The uttered alternations, produced by the children in Persian, were matched with their equivalents in English, including, 'in, on, under, behind, in front of, above, between, next to, and near'. Then they were presented in a table considering the age and gender of the respondents. The responses were analyzed based 3 age groups (3-4, 4-5, and 5-6), including 10 children (5 male and 5 female) in each age group.

Table 1 shows the results of elicitation from 10 children (5 males, 5 females), between the age of 3 and 4. As what can be seen, children aged 3 to 4 can recognize and utilize just 2 prepositions of our list, namely, 'in and on'. The results for other 7 prepositions are zero or non-significant. It is worth mentioning that the results were the same for both girls and boys.

**Table 2. Worksheet for locative prepositions elicitation (4-5 year old)**

S. No.	Male / Female	Age	In	on	under	Behind	In front of	Above	Between	Next to	Near
1	F	5-6	✓	✓	✓	✓	✓	-	✓	*	-
2	F	5-6	✓	✓	✓	✓	✓	-	✓	*	-
3	F	5-6	✓	✓	✓	✓	✓	-	✓	*	-
4	F	5-6	✓	✓	✓	✓	✓	-	✓	*	-
5	F	5-6	✓	✓	✓	✓	✓	*	✓	-	-
6	M	5-6	✓	✓	✓	✓	✓	✓	✓	*	-
7	M	5-6	✓	✓	✓	✓	✓	-	✓	*	-
8	M	5-6	✓	✓	✓	✓	✓	-	✓	-	-
9	M	5-6	✓	✓	✓	✓	✓	-	✓	*	-
10	M	5-6	✓	✓	✓	✓	✓	-	✓	*	-

In the same way, Table 2 shows the responsiveness of 10 male and female children aged between 4 and 5. From the following Table we observe that children in this age group could identify six prepositions of our nine-membered list, such as; ‘*in, on, under, behind, and in front of*’. In this regard, ‘*next to*’ was a controversial issue because it was recognized partially. The responses to other prepositions (*above, between, and near*) were not significant.

The performance of the third age group (5 to 6) is presented in Table 3. From the table it is understandable that children in this group have recognized six prepositions properly, which are ‘*in, on, under, behind, in front of and next to*’. The responses to other prepositions (*above, between, and near*) were not acceptable.

**Table 3. Worksheet for locative prepositions elicitation (5-6 year old)**

	Male/ Female	age	in	on	under	behind	in front of	above	between	next to	near	
1	F	5-6	✓	✓	✓	✓	✓	-	*	*	✓	-
2	F	5-6	✓	✓	✓	✓	✓	-	*	*	✓	-
3	F	5-6	✓	✓	✓	✓	✓	-	*	*	✓	-
4	F	5-6	✓	✓	✓	✓	✓	-	*	*	✓	-
5	F	5-6	✓	✓	✓	✓	✓	-	-	*	✓	*
6	M	5-6	✓	✓	✓	✓	✓	-	*	*	✓	✓
7	M	5-6	✓	✓	✓	✓	✓	-	*	*	✓	-
8	M	5-6	✓	✓	✓	✓	✓	-	-	✓	-	-
9	M	5-6	✓	✓	✓	✓	✓	-	*	✓	-	-
10	M	5-6	✓	✓	✓	✓	✓	-	*	*	✓	-

### CONCLUSION

Considering the performance of the children in three age groups of 3-4, 4-5, and 5-6, since the number of correct responses in each group increases as they grow up, we can conclude that the acquisition of prepositions has a positive correlation to age. However, based on the researcher’s observation and data analyses, it was inferred that the acquisition of preposition would not be completed even by the age of 6, because the observations showed that even in the third group children couldn’t distinguish among prepositions like ‘*between, next to, and near*’ which have close meanings. Moreover, even by this age the preposition ‘*above*’ has not been acquired yet. Consequently, the acquisition of prepositions would not be completed even by the age of 6 and it would be in progress and this process takes place during cognitive maturation, regardless of gender.



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