Structural Locations and Competition: The Case of Persian RA<br>Leah Chapman and Zahra Mirrazi • University of Massachusetts, Amherst

Problem: In Persian, there are three contexts in which the RA morpheme appears: on objects, on topics, and on adverbial phrases. In a sentence, there can be only one RA marked phrase of any given type. There cannot be two objects marked with RA, or two topics, or two adverbials. However, a sentence can have multiple instances of RA if they are of different categories. By analyzing the different categories of RA as separate morphemes, the appearance of multiple kinds of RA within a single sentence can be accounted for. The competition within the different types of RA suggests a structural approach that allows for only one phrase in the place that ultimately surfaces with RA. Therefore, we propose that only the phrases in the specifiers of AgrO, the location of a shifted object, Dur, a durational head for adverbial phrases, and Top, the topicalization head, can get RA.
Objects: It has long been noted that RA can appear on some but not all objects. Previous approaches analyzed RA as a differential object marker, considering both accusative case and specificity.[4] However, we support Baker \& Bobaljik (2015), in treating RA as outside of the case system.[2] Evidence comes from ditransitives. Indirect objects can be either prepositional or nominal with RA marking. This suggests that RA shouldn't be treated as ACC.
(1) Reza ketab -am ro be Ali dad

Reza book -my RA to Ali gave
"Reza gave my book to Ali."
(2) man bačče -ha ro qaza dad -am

I kid -PL RA food gave -1.SG
"I fed the kids."

Specificity also falls short. There are instances where plural objects are marked with RA but recieve a generic reading (3). There are also instances of non RA marked objects that get a specific reading (4). Therefore, specificity cannot be the sole determiner of the distribution of RA, though it certainly plays a part.
(3) an karxane zanan-ra estexdam kard
that company women RA hire did
"That company hired women."
(4) man ye mard did -am

I a man saw-1.SG
"I saw a man."

The evidence that only one object in a sentence may be RA marked also comes from ditransitives. Ditransitive constructions offer many different options to mark direct and indirect objects. Direct objects may be either marked with RA or bare when they are indefinite and non-specific. Indirect objects may be marked with RA or in a prepositional phrase ${ }^{1}$ However, the direct and indirect objects cannot both be RA marked. This is illustrated int eh examples below. In (2), the DO is non-specific and bare while the IO is RA marked. In (5), the DO is specific and RA marked while the IO is prepositional. When the direct object is specific and the indirect object is non-prepositional, both are eligible to have RA. This is not possible, so the sentence is ungrammatical, as shown in (6). Under our analysis, being eligible for RA marking is equivalent to obligatorily moving to the specifier of AgrO. Both cannot shift to the same position, and thus the sentence is correctly predicted to be ungrammatical.
(5) man be bačče -ha qaza ro dad -am

I to kid -PL food RA gave -1.SG
"I fed the kids."
(6) * man bačče -ha ro qaza ro dad -am

I kid -PL RA food RA gave-1.SG
"I fed the kids."

One way to explain which objects need to shift is to appeal to a DP/NP distinction, following Adger \& Harbour (2007) and Heck \& Richards (2010).[1][5] It is the D layer of a DP which yeilds a specific reading. NPs are generic but cannot stand ont heir own and must be within a VP or PP. ${ }^{2}$ DPs must shift, and it is this shifted position that gets marked with RA. Non-specific indefinite direct objects are NPs

[^0]that do not shift and therefore are not in the correct part of the structure to be RA marked. Because there is only one specifier position, only one object may occupy the space and become RA marked. When two DPs are competing for the shifted position, as in (6), the sentence becomes ungrammatical.
Topics: Another context in which RA occurs is on a topic. This type of RA, a typical topic marker, follows in the tradition of the first analyses of RA.[3] This RA appears on specifiers of the topic phrase, TopP. Any nominal phrase which is topicalized will move into the specifier of Top and optionally receive RA. Other phrases may topicalize but RA may only attach to nominals. There are potentially more positions at the left perifery for topicalization[6], but only one head bears RA. Topicalization includes NPs which are not eligible for the object RA, as seen in (7). Crucially, (7) has a non-specific reading for books. If books were to have a specific reading, RA would be grammatical in both sentences. In order to permit only one RA in the topic domain, like the objects, there can only be one specifier of Top.

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a. midoon -am hame -ye bačče -ha ketab(*ro) mi -xoon -an
    know -1.SG all -EZ kid -PL book(*RA) IMPF -read -3.PL
    "I know all kids read books."
b. ketab(ro) midoonam hame -ye bačče -ha mi -xoon -an
    book(RA) know -1.1SG all -EZ kid -PL IMPF -read -3.PL
    "Books, I know all kids read."
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Adverbs: The last context that RA appears in, adverbial phrases, is not well described in the literature. It marks durational adverbial phrases, both of time and space. While most adverbs are interpreted normally and can appear many places in the sentence, when an adverb is marked with RA, the interpretation is necessarily durational and it can only appear once. Therefore, the adverbial RA marks the specifier of a durational phrase, DurP. As with the other contexts, only one specifier is permitted, creating the conditions for competition and allowing only one adverbial RA to surface in a given sentence.
Discussion: As predicted under this structural competition account, the different RA positions are not in competition with each other. A sentence may contain up to three instances of RA, as long as they are of the different types, as in (8). This sentence has a structure where Ali is in the specifier of Top and is marked with RA, tonight is in the specifier of Dur and is marked with RA, and lessons is in the specifier of AgrO and is marked with RA.
(8) Ali ro man mi -doon -am emšab ro dars ro bixial šode - $\emptyset$

Ali RA I IMPF -know -1.SG tonight RA lesson RA care-less become.PST -3.SG
"As for Ali, I know he has put aside his lessons for tonight."
A structural competition approach explains the category internal restriction to a single RA. Only the specifier of a certain head will get marked with RA, and there can be only one specifier. It also explains why multiple kinds of RA are allowed in a single sentence. They arise from different heads, and therefore are not in competition with each other. By pursuing this type of analysis we are able to explain not only the distribution of RA, but also contribute to the understanding of differential object marking in Persian.

## References

[1] David Adger and Daniel Harbour. Syntax and syncretisms of the person case constraint. Syntax, 10(1):2-37, 2007.
[2] Mark Baker and Jonathan David Bobaljik. On inherent and dependent theories of ergative case.
[3] Mohammad Dabir-Moghaddam. Syntax and semantics of causative constructions in Persian. PhD thesis, University of Illinois at Urbana, 1982.
[4] Simin Karimi. On object positions, specificity and scrambling in Persian. In Simin Karimi, editor, Word order and scrambling. Wiley-Blackwell, 2003.
[5] Marc Richards and Fabian Heck. A probe-goal approach to agreement and incorporation restrictions in southern tiwa. 2010.
[6] Luigi Rizzi. The structure of CP and IP: The cartography of syntactic structures, volume 2, chapter The functional structure of the sentence, and cartography. Oxford University Press, 2004.


[^0]:    ${ }^{1}$ They may be bare post-verbally, but we are not considering post-verbal constructions.
    ${ }^{2}$ Plurals can get RA and be generic because we are assuming a DM view of DPs where they have more structure than an NP and less than a DP. Thus, the break between NP and DP is in the intervening structure. We use the DP/NP terminology here in the interest of space.

