RESULTATIVES IN TURKISH[1]

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Abstract
The aim of this paper is to discuss the syntactic properties of the resultative constructions (henceforth RCs) in Turkish. It is claimed following Larson (1988), Saito (2001), Hornstein (1999) among others that configurations for theta role assignment can be created by movement. The evidence for this claim is attested by an investigation of resultatives in Turkish. After rejecting the 'Small Clause' and 'Incorporation' analyses, the paper claims that a movement analysis of RCs cf. Saito (2001) can account for the facts presented by Turkish RCs.

1. Introduction

RCs in languages have been analyzed extensively within the generative theory. A number of works dealing with the semantic and syntactic aspects of the construction have contributed to the understanding of complex predicate structures in language, Winkler (1997), Carrier & Randall (1992), Saito (2001) among others. The detailed investigations of RCs have contributed significantly to the theory of argument structure as a theory of the syntax-semantics interface. RCs are particularly important since they typically exhibit a type of syntax-semantics mismatch in terms of theta role assignment.

The resultative predicate involved in RCs is defined in Halliday (1967) (cited in Winkler (1997)) as a predicate which describes a resultant state which is caused by the action denoted in the primary predication. The examples (1-2) below are the examples of RCs in English and Turkish respectively:

1. They hammered the metal flat

[1] The earlier version of this paper was presented in a meeting of the linguistics circle at Boğaziçi University. I thank the audiences at Boğaziçi University and at the 3rd Postgraduate Conference in Linguistics at the University of Athens for their invaluable comments and suggestions.

2. [$_{IP}$ Ali [$_{VP}$ [$_{NP}$ kapı-yı] [$_{AP}$ açık] bırak-tı-ϕ]]
Ali door-ACC[2] open leave-PAST-AGR 3sg.
Ali left the door open.

The example (1) above includes a VP consisting of a verb, its complement NP and a result phrase realized as an AP. Likewise in the example (2), the verb 'bırak-' (leave), its NP complement bearing the structural accusative case 'kapıyı' (the door) and a result phrase 'açık' (open) in AP form a resultative construction.

The paper argues that the syntax-semantics mismatch in terms of theta role assignment in RCs can be handled in a complex verb analysis. According to the analysis provided in this paper, the complement NP in RCs is merged first with the adjective head and checks its theta feature. It then moves to a theta role position to check the verb's theta feature. The analysis assumes that the theta roles are features to be checked and there is no upper limit on the number of the theta features that an NP can check (cf. Boskovic & Takahashi 1998, Hornstein 1999).

The outline of the paper is as follows: section 2 describes the theta role assignment problem in RCs and raises the theoretical questions for this problem. In the third section, we focus on the argument status of the complement NP and the result phrase in RCs and argue that both the complement NP and the result phrase are arguments of the verb. Section 4 investigates the different approaches to the issue and provides a counter argument for the 'incorporation' and 'small clause' analyses. It then claims that the complex verb analysis involving the movement of the complement NP to a theta position can account for the facts presented in Turkish data. Section 5 is the conclusion.

2. The problem and theoretical questions

The argument status and theta role assignment of the complement NP in (1) and (2) are assumed to represent a syntax-semantics mismatch. It is not clear how theta role is assigned to the complement NP, i.e. by the verb head, by the adjective head or by both. The last is a clear violation of the theta theory of Chomsky (1981). If the NP is a complement of the verb head, how does the adjective (result phrase) 'açık' (open) give a theta role

[2] ACC: accusative case, ADJ.PASS: adjectival passive, AGR: agreement suffix (1sg.: 1st person agreement suffix, 2sg.: 2nd person agreement suffix, 3sg.: 3rd person agreement suffix), GEN: genitive case, INST: instrumental case, NOM: nominative case, PAST: past suffix, POSS: possessive marker.

to it? If it is within the domain of the adjective (AP), it is not clear how it receives the THEME theta role from the verb cf. Saito (2001)[3].

With respect to the syntactic nature of the problems, I raise the following questions:

(i) Does the structure in the example (2) involve incorporation of two theta role assigning predicates so that the complement NP receives only one theta role which is jointly assigned by the incorporated heads?

(ii) Can the problem of theta role assignment be solved by the movement of the complement NP to another theta position cf. Saito (2001)?

3. The argument status of the pre-verbal NP and the result phrase

The term argument has intuitively clear content, but linguists do not agree upon the implications of the concept and the proper linguistic representation of it. For complex predicate structures like ditransitive verbs (give, put) and resultative constructions in this study two basic approaches have been proposed (cf. Carrier & Randall 1992): (i) strict locality and (ii) strict binary branching (cf. Williams 1994). In the former case, the non-subject arguments (internal arguments) must be sister of the verb, violating binary branching which is the basic primitive of X'-Theory. In the latter case, binary branching is satisfied but the sisterhood and c-command definition of government (case and theta role assignment) are violated though the m-command definition of government which allows the second complement to be governed is introduced for case and theta reasons.

In this study I consider argument structure proposed by Hale & Keyser (2002). According to their view, the argument structure of a lexical item is projected to syntax having a syntactic configuration which expresses structural relations: head, complement and specifier.

The section uses some diagnostics for the argumenthood of the post verbal NP and result phrase which are proposed in Carrier & Randall (1992) before. I will propose that both constituents are arguments of the verb[4].

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[3] Özsoy (2001: 234, footnote 8) reports a similar problem of theta role assignment in depictive secondary predicates for Turkish.

[4] See also Schroeder (2000) for the argument status of the resultative predicates in Turkish. He notes that the complement NP is the argument of the verb in a resultative structure.

3.1. Long distance extractions of pre-verbal NP in relative clauses

It is possible to extract a complement NP in relative clauses in Turkish. However, the extraction of an adjunct phrase yields ungrammaticality. Consider the examples in (3-5) below:

3. [$_{CP1}$ [$_{CP2}$ [$_{CP3}$ Ali'nin [**ec$_i$**] açık bırak-tığ-ı-nı]
Ali-GEN open leave-NOM-AGR3sg-ACC
gör-düğ-ün-ü] söyle-diğ-in] [kapı$_i$]
see-NOM-AGR2sg-ACC tell-NOM-AGR2sg door
The door that you said that you saw that Ali left open.

4. [$_{CP1}$ [$_{CP2}$ [$_{CP3}$ Ali'nin [**ec$_i$**] döv-düğ-ü-nü gör-düğ-ün-ü]
Ali-GEN beat-NOM-AGR3sg-ACC see-NOM-AGR2sg-ACC
söyle-diğ-in] [adam$_i$]
tell-NOM-AGR2sg man
The man that you said that you saw that Ali has beaten.

5a. [$_{CP1}$ [$_{CP2}$ [$_{CP3}$ Ali'nin [**ec$_i$**] gel-diğ-i-ni] bil-diğ-in-i]
Ali-GEN come-NOM-AGR3sg-ACC see-NOM-AGR2sg-ACC
söyle-diğ-in] [akşam$_i$]
tell-NOM-AGR2sg evening
The evening that you said that you know that Ali came

5b. [$_{CP1}$ [$_{CP2}$ [$_{CP3}$ Ali'nin [**ec$_i$**] gel-diğ-i-ni] bil-diğ-in-i]
Ali-GEN come-NOM-AGR3sg-ACC see-NOM-AGR2sg-ACC
söyle-diğ-in] [yer$_i$]
tell-NOM-AGR2sg place
The place that you said that you know that Ali came from.

The examples in (3-5) illustrate long distance extraction of the NPs under relativization. In the example (3), the NP complement of the verb in the resultative construction is extracted and the sentence is grammatical. Likewise in (4) the extraction of the argument NP in a non-resultative construction is grammatical. In (5a-b), on the other hand, the extraction of adjunct NP yields a violation of Empty Category Principle (ECP). I assume following Carrier & Randall (1992) that the grammaticality of the example in (3) indicates that the complement NP in a resultative structure is an argument of the verb. Since it is an argument, lexically governed by the verb, long distance extraction does not cause any violation. The extraction of an adjunct in the examples (5a-b), on the other hand, violates ECP since the adjuncts are not lexically governed by a head.

3.2. Verb's selection of the result phrase

Due to the fact that the verb in RCs selects the result phrase, Carrier & Randall (1992) claim that the result phrase is the argument of the verb[5]. Consider the following sentences in Turkish: example (2) above is repeated as (6a) here:

6a. [$_{IP}$ Ali [$_{VP}$ [$_{NP}$ kapı-yı] [$_{AP}$ açık] bırak-tı-ϕ]]
Ali door-ACC open leave-PAST-AGR3sg.
Ali left the door open.

6b. *[$_{IP}$ Ali [$_{VP}$ [$_{NP}$ kapı-yı] [$_{AP}$ aç-ılmış] bırak-tı-ϕ]]
Ali door-ACC open-ADJ.PASS leave-PAST-AGR3sg.
Ali left the door open.

The grammatical example (6a) has a result phrase with a 'bare' adjective 'açık' (open). In the example (6b), on the other hand, bare adjective is replaced by an AP which I assume to be an adjectival passive[6] structure 'açılmış' (opened) and the structure is ungrammatical. I follow Carrier & Randall (1992) that the ungrammaticality of (b) sentence is due to the fact that the verb in RCs selects the result phrase; hence the result phrase is an argument of the verb. However, the discussion so far is not without problem in that it rules out the sentence in (7b) below:

7a. [$_{IP}$ Ali [$_{VP}$ [$_{NP}$ kapı-yı] [$_{AP}$ açık] bul-du-ϕ]]
Ali door-ACC open find-PAST-AGR3sg.
Ali found the door open.

7b. [$_{IP}$ Ali [$_{VP}$ [$_{NP}$ kapı-yı] [$_{AP}$ aç-ılmış] bul-du-ϕ]]
Ali door-ACC open-ADJ.PASS find-PAST-AGR3sg.
Ali found the door open.

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[5] The same diagnostics is used by Soo-Min Hong (2004) for Korean resultative constructions. She observes that the verb in RCs can occur with any adjective as the example (i) below indicates. (Hong's example (17)):
i. Hanye-ka sot-ul [panccakkkeli-key / panccakkkelieci-key] mwncile-ss-ta
Maid-NOM pot-ACC shiny, shining-KEY / shined-KEY scrub-PAST
The maid scrubbed the pot shiny.
As the example (i) above indicates, the verb is compatible with either type of adjective in the resultative construction. Hence, she concludes that there are no selectional restrictions (neither l-selection, nor s-selection) of result phrase in Korean. Hence Korean result phrases are not arguments of the verb, but are vP / VP adjuncts.

[6] See Nakipoğlu (2000). She considers [V+passive+mIş] forms as adjectival passives in Turkish.

According to the analysis above, the example in (7b) must be ruled out since adjectival passives are incompatible with the verb in RCs. However, the structures in (7a-b) are both equally grammatical. At this point, I suggest that there is a difference in the interpretations of (6a) and (7b). Although a resultative reading is available in (6a), it is not necessarily available in (7b). There is a depictive reading instead of resultative one in (7b) as illustrated below in (8a-b):[7]

8a. Ali left the door open. (as a consequence of Ali opening the door): Resultative interpretation (6a)
8b. Ali found the door open (the door is already opened by someone else): Depictive interpretation (7b)

The above discussion shows that both the complement NP and the result phrase are arguments of the verb in RCs. As the example in (3) indicates, it is possible to extract the complement NP in RCs indicating that it is an argument of the verb. The fact that the verb selects the result phrase is explained if we assume that the result phrase is an argument of the verb too. In next section, we first focus on the two possible analyses of the theta role assignment problem in RCs. After rejecting the Incorporation and small clause analyses, we will provide arguments in favor of the complex verb analysis involving the movement of the complement NP for theta reasons.

4. The theta role assignment of the complement NP

After presenting arguments against the Incorporation Analysis discussed in Saito (2001) and the Small Clause Analysis in Carrier & Randall (1992), Williams (1994), a complex verb analysis is proposed for the problem. It is argued following Saito (2001) that the complement NP is merged with the result phrase AP checking its theta feature, and then moves to a higher theta position to check the theta feature of the verb in RCs in Turkish.

4.1. Incorporation Analysis

The first analysis we discuss is the incorporation analysis proposed in Saito (2001) for the RCs in Chinese. According to this analysis, two theta

[7] See Winkler (1997) and Schroeder (2000) for the syntactic and semantic differences between resultative and depictive secondary predicates.

role assigning predicates incorporate and assign a single theta role to single NP in the structure in accordance with Theta Theory. The Incorporation analysis is shown in (9) below:

9. Ali [$_{NP}$ kapıyı] [$_{V\text{-}ADJ}$ açık bıraktı]



The structure in (9) above shows the incorporation of two theta role assigning predicates, the verb 'bıraktı' (left) and the adjective 'açık' (open). These two predicates then jointly assign a THEME theta role to the complement NP 'kapıyı'. The incorporation analysis seems correct in terms of Theta Criterion. Since two theta role assigning predicates are incorporated, there is only one theta role to be assigned, and it is assigned to a single NP. However, the analysis has some problems.

4.1.1. The problem in external argument sharing

The first problem with the incorporation analysis is that, as pointed out in Saito (2001), it requires the subject of the result phrase and that of the primary predicate to be the same. The external argument sharing is possible in Chinese indicating that Chinese RCs are accounted for by incorporation analysis. However, in Turkish this seems not possible. Consider the following examples in (10-11):

10. [$_{IP}$ Ali [$_{VP}$ [$_{NP}$ kedi-yi] [$_{AP}$ aç] bırak-tı-ϕ]]
Ali cat-ACC hungry leave-PAST-AGR3sg.
Ali left the cat hungry.

11. *?[$_{IP}$ Ali [$_{VP}$ [$_{NP}$ kendisi-ni] [$_{AP}$ aç] bırak-tı-ϕ]]
Ali himself-ACC hungry leave-PAST-AGR3sg.
Ali left himself hungry.

In the example (10), the subject of primary predicate and the subject of the result phrase is not the same and the structure is grammatical. However, the ungrammaticality of the sentence in (11) indicates that in Turkish the result phrase can not share the external argument of the primary predicate. The two heads then do not form a compound, hence incorporation is not the case. A possible question at this point is whether the language allows external argument sharing by two heads at all? The answer is yes. Consider the examples in (12a-b) below:

12a. [$_{IP}$ Ali [$_{VP}$ ayna-da [$_{NP}$ kendi-ni] [$_{AP}$ zayıf] gör-dü-ϕ]]
Ali mirror-DAT himself-ACC thin see-PAST-AGR3sg
Ali saw himself thin in the mirror.

12b. [$_{IP}$ Ali [$_{VP}$ [$_{NP}$ kitab-ı] [$_{AP}$ keyifli] oku-du-ϕ]]
Ali book-ACC cheery read-PAST-AGR3sg
Ali read the book in a cheery mood.

The sentences in (12a-b) are examples of subject oriented depictive structures in Turkish[8]. The examples indicate that the subject of the primary predicate and that of the adjective are the same, they can share their arguments. However, these structures are not considered as RCs but as subject oriented depictives since they do not have any resultative interpretation.

4.1.2. Possibility of scrambling of the result phrase

The second problem for the Incorporation analysis comes with the fact that the result phrase in Turkish can scramble. Note that the result phrase in English can be dislocated as well, (cf. Carrier & Randall 1992). Consider the examples in (13a-d) which show the scrambling of the result phrase.

13a. [$_{IP}$ Ali [$_{VP}$ [$_{NP}$ kol-u-nu] [$_{AP}$ dimdik] kaldır-dı-ϕ]]
Ali arm-POSS3sg-ACC upright raise-PAST-AGR3sg.

13b. [$_{IP}$ Ali [$_{VP}$ [$_{AP}$ dimdik] kaldır-dı-ϕ] [$_{NP}$ kol-u-nu]]
Ali upright raise-PAST-AGR3sg. arm-POSS3sg-ACC

13c. ?[$_{IP}$ Ali [$_{VP}$ kaldır-dı-ϕ [$_{NP}$ kol-u-nu] [$_{AP}$ dimdik]]]
Ali raise-PAST-AGR3sg. arm-POSS3sg-ACC upright

13d. [$_{IP}$ Ali [$_{VP}$ [$_{NP}$ kol-u-nu] kaldır-dı-ϕ [$_{AP}$ dimdik]]]
Ali arm-POSS3sg-ACC raise-PAST-AGR3sg. upright
Ali put his arm straight up.

The examples in (13a-d) indicate that the result phrase can be dislocated. This clearly shows that the primary predicate and the result phrase do not incorporate (cf. Saito 2001). Consider the English examples below form Carrier & Randall (1992) indicating that the result phrase can be dislocated in English as well:

[8] See also Schroeder (2000) for the subject oriented depictives in Turkish.

14a. How flat did they hammer the metal?
14b. How red did she paint the barn?

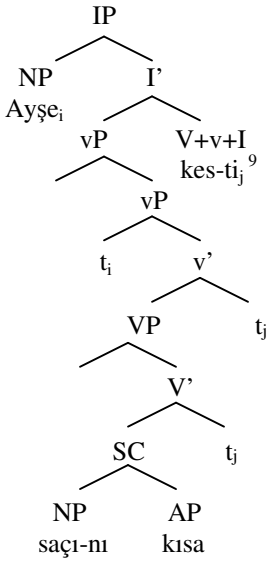
Having provided counter arguments against the incorporation analysis of the RCs in Turkish, I will now focus on the small clause analysis and show that it can not account for the problem either.

4.2. Small Clause Analysis

Kayne (1981) (cited in Carrier & Randall 1992) provides a Small Clause (SC) analysis for the RCs in language. According to this analysis, the complement NP and the result phrase form a SC. The analysis predicts the theta role assignment in RCs by assuming that the result phrase assigns a theta role to its subject (complement NP) and the verb assigns THEME theta role to the small clause without violating the theta theory. SC analysis of the problem is shown in (16) below. (16) is the tree representation of the sentence in (15).

15. [$_{IP}$ Ayşe [$_{VP}$ [$_{NP}$ saç-ı-nı] [$_{AP}$ kısa] kes-ti-ϕ]]
Ayşe hair-POSS3sg-ACC short cut-PAST-AGR3sg.
Ayşe cut her hair short.

16.



[9] I assume that the verb moves to I in Turkish (cf. Kural 1992, Aygen 2000).

As the structure in (16) shows, the verb assigns a theta role to the SC formed by the result phrase and the complement NP. The complement NP receives a theta role form the result phrase and is interpreted as the subject of the result phrase. The accusative case of the complement NP is checked through long distance Agree in the sense of Chomsky (2001). However, SC analysis is not without problem.

The first problem is semantic in nature: SC analysis predicts a predication structure in that the complement NP is the subject of the result phrase. With this representation, the sentence in (15) above loses its transitive reading. The sentence means now 'as a consequence of Ayşe engaging in the activity of cutting, the hair became short', rather than meaning 'as a consequence of Ayşe cutting her hair, the hair became short' as also pointed out in Carrier & Randall (1992).

4.2.1. Case assignment in small clauses

The second problem is the behavior of the subject in SCs. One of the subjecthood tests used in literature is the fact that subjects can get nominative case as pointed out in Harley (1995). Small clause subjects in Turkish can get both accusative and nominative case as the examples in (17a-b) indicate.

17a. [$_{IP1}$ ben [$_{IP2}$ sen-i git-ti-ϕ] san-dı-m]
I-NOM you-ACC go-PAST-AGR3sg think-PAST-AGR1sg

17b. [$_{IP1}$ ben [$_{IP2}$ sen git-ti-n] san-dı-m]
I-NOM you-NOM go-PAST-AGR2sg think-PAST-AGR1sg
I thought that you went.

The subject of the embedded clause (IP2) in (17a) is marked accusative by the main verb 'san-dı-m' ((I) thought) through Exceptional Case Marking. In (17b), on the other hand, the subject of the embedded clause is marked nominative. This contrast indicates that the subjects in a SC can be realized both in accusative and nominative case. If the complement NP is the small clause subject as predicted by SC analysis, we would get this NP in nominative case. However, the prediction is wrong as the examples in (18a-b) and (19a-b) show.

18a. [$_{IP}$ Ayşe [$_{VP}$ [$_{NP}$ saç-ı-nı] [$_{AP}$ kısa] kes-ti-ϕ]]
Ayşe hair-POSS3sg-ACC short cut-PAST-AGR3sg.

18b. *[$_{IP}$ Ayşe [$_{VP}$ [$_{NP}$ saç] [$_{AP}$ kısa] kes-ti-ϕ]]
Ayşe hair short cut-PAST-AGR3sg.
Ayşe cut her hair short

19a. [$_{IP}$ Ali [$_{VP}$ [$_{NP}$ demir-i] [$_{AP}$ dümdüz] bük-tü-ϕ]]
Ali metal-ACC flat pound-PAST-AGR3sg.

19b. *[$_{IP}$ Ali [$_{VP}$ [$_{NP}$ demir] [$_{AP}$ dümdüz] bük-tü-ϕ]]
Ali metal flat pound-PAST-AGR3sg.
Ali pounded the metal flat

The complement NP in (a) sentences of (18) and (19) is marked with the accusative case and the structures are grammatical. In (b) sentences of the same examples, on the other hand, the complement NP is realized in nominative case, and the structures are ungrammatical. This contrast in grammaticality clearly indicates that the complement NP in RCs does not behave as the subject of the small clause.

Korean seems to behave differently with respect to the case assignment of the complement NP in RCs. As pointed out in Hong (2004), in Korean RCs, the complement NPs can have both accusative and nominative marking as the subject of the SC. The examples in (20a-b) below show this pattern (Hong's examples (19a-b)).

20a. John-i kumsok-ul napcakha-key twutulki-ess-ta
John-NOM metal-ACC flat-KEY pound-PAST
John hammered the metal flat.

20b. John-i kumsok-i napcakha-key twutulki-ess-ta
John-NOM metal-NOM flat-KEY pound-PAST
John hammered the metal flat.

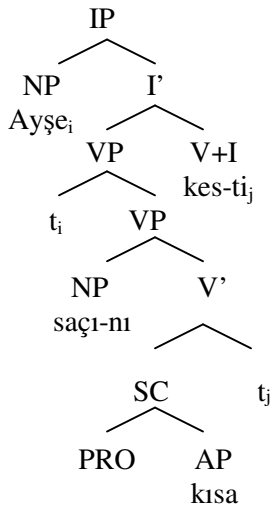
The complement NP in (20a) is marked accusative, and in (20b), nominative. Note that both structures are grammatical indicating that the complement NP in Korean RCs behaves similar to the small clause subjects. Hence, RCs in Korean can be analyzed in terms of SC analysis.

We have seen that the case assignment facts in Turkish provide counter argument for the SC treatment of the RCs. However, there is one alternative SC derivation discussed in Carrier & Randall (1992) for the RCs in language. Instead of the complement NP and the result phrase forming a SC in which the complement NP is the subject of the result phrase, this alternative SC analysis provides that the complement NP is generated in Spec-VP position, where it receives a theta role from the verb, and the result phrase forms a SC with a PRO in its subject position, to which the result phrase assigns its theta role. This analysis satisfies the theta theory but violates Control Theory by allowing PRO in small clause subject position governed by the verb (cf. Carrier & Randall 1992).

Example (15) is repeated here as (21) and (22) represents its derivation with Small clause with PRO analysis:

21. [$_{IP}$ Ayşe [$_{VP}$ [$_{NP}$ saç-ı-nı] [$_{AP}$ kısa] kes-ti-ϕ]]
Ayşe hair-POSS3sg-ACC short cut-PAST-AGR 3sg.
Ayşe cut her hair short.

22.



4.2.2. Scope ambiguity in RCs

The third counter evidence for the SC treatment of RCs comes with the scope ambiguity facts in Turkish. Assuming that the scope ambiguity is clause bound, the subject of the small clause cannot have wide scope over the QP in subject position as pointed out to me by Atakan İnce (p.c). However, this is not the case in Turkish as the example in (23) below shows: the indefinite subject of SC can have wide scope over the QP in subject position.

23. [$_{IP}$ [$_{QP}$ Herkes] [$_{VP}$ [$_{INDEF.NP}$ bir resm-i] [$_{AP}$ yamuk]
everyone-NOM a picture-ACC crooked
as-tı-ϕ]]
hang-PAST- AGR3sg.
Everyone hung a picture leaning to one side.
☑ QP > INDEF 'distributive reading'
☑ INDEF > QP 'collective reading'[10]

[10] The reading where the indefinite takes wide scope over the QP is not accepted for all native speakers.

The example in (23) includes two logical operators which interact with each other: (i) QP in subject position, and (ii) indefinite in complement position of the verb. Note that the example is ambiguous between distributive (QP takes wide scope over the indefinite) and collective (the indefinite takes wide scope over the QP) readings. If we assume that the scope should be clause bound, the SC analysis makes wrong prediction about the scope relations between the QP and indefinite. It predicts that the indefinite which is the subject of the SC can not take wide scope over the QP in subject position. However, as the example (23) indicates, both readings are possible. Hence, we have to conclude again that SC analysis of RCs is not correct.

4.2.3. Coordination facts

After presenting three pieces of evidence against the SC analysis of RCs, in this subsection I will focus on one argument in favor of the SC analysis: the possibility of coordination in RCs. As the example (24) indicates, it is possible to coordinate the SCs formed by the result phrase and the complement NP.

24. [$_{IP}$ Ali [$_{VP}$[$_{SC1}$ saç-ı-nı düz] [$_{SC2}$ sakal-ı-nı kısa]
Ali hair-POSS-3sg.-ACC straight beard-POSS3sg-ACC short
kes-ti-ϕ]]
cut-PAST-AGR3sg.
Ali cut his hair straight and his beard short.

The possibility of coordination in (24) above is explained if we assume that the complement NP and the result phrase form a SC assuming that only the constituents can be coordinated. This seems to be a good support for the SC analysis of the problem. However, it is also possible to coordinate the verb+VP adjunct structures in Turkish. Consider the example in (25).

25. [$_{IP}$ Ali [$_{VP}$ [$_{SC1}$ kitab-ı hızlı] [$_{SC2}$ dergi-yi yavaş]
Ali book-ACC fast magazine-ACC slowly
oku-du-ϕ]][11]
read-PAST-AGR 3sg.
Ali read the book fast and the magazine slowly.

[11] The example (23) is provided by Atakan İnce (p.c.).

Example (25) above shows the coordination of two [verb+VP adjunct] structures. Since there is no independent motivation for the claim that a verb and a VP-adjunct form a SC, we have to conclude again that the result phrase and the complement NP do not form a SC.

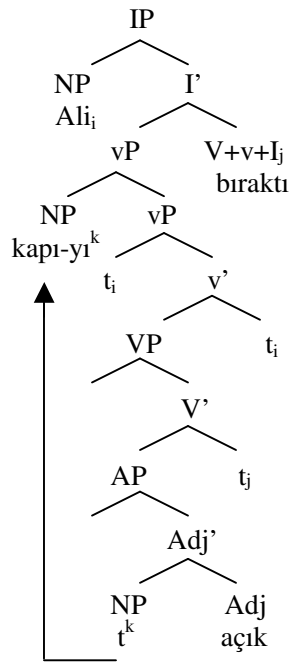
In the next section, I will focus on the complex verb analysis of RCs and argue that the complex verb analysis proposed in Winkler (1997) and Saito (2001) can account for the facts in Turkish RCs.

4.3. Complex verb analysis

Following Larson (1988), Winkler (1997) and Saito (2001) proposed a complex verb analysis for the RCs in English. In this subsection, I will provide a derivation for RCs in Turkish similar to the one proposed in Saito (2001) for English. The derivation assumes that the theta roles are features that are checked in different positions and there is no upper limit on the number of theta roles that a NP can check (cf. Boskovic & Takahashi 1998 and Hornstein 1999). Consider the example (2) that is repeated here as (26). The structure in (27) represents the derivation of (26).

26. [$_{IP}$ Ali [$_{VP}$ [$_{NP}$ kapı-yı] [$_{AP}$ açık] bırak-tı-ϕ]]
Ali door-ACC open leave-PAST-AGR3sg.
Ali left the door open.

27.



The structure in (27) above shows the derivation of a resultative construction in Turkish. In this representation, the complement NP is merged first within the result phrase where it checks the theta feature of the adjective head. It then moves to Spec-vP position to check the theta feature of the verb. Note that this movement does not violate *greed* since it moves for feature checking (cf. Chomsky 1995). Note that the accusative case feature of the complement NP is checked with the ϕ-features on the verb head through AGREE relation (cf. Chomsky 2001).

The complex verb analysis has advantages over the two analyses previously discussed in the paper. Unlike the two analyses, it does not make wrong predictions on the data in accounting the problem of theta role assignment in RCs. It solves the problem by arguing that the complement NP receives theta roles from both heads. Hence, the theta role assignment properties of both predicates 'açık' (open) and 'bırak-' (to leave) are satisfied. The analysis supports the claim that the configurations for theta role assignment can be created by movement in that it involves the movement of the complement NP to a theta position to check a theta feature in overt syntax.

4.3.1. VP ellipsis structures

In this section, I will provide an argument which seems to be problematic for the analysis provided in the previous section. The problematic data come with VP ellipsis structures in Turkish. The example (28) below illustrates a resultative construction with VP ellipsis in Turkish. Note that the elided VP with the interpretation of the result phrase is ungrammatical.

28. *[$_{IP}$ Ali [saç-ı-nı kısa kes-ti-ϕ]
Ali hair-POSS-3sg.-ACC short cut-PAST-AGR 3sg.
[Ahmet de sakal-ı-nı [] kes-ti-ϕ]]
Ahmet FOC-PART beard-POSS3sg-ACC [kısa] cut-PAST-AGR 3sg.
Ali cut his hair short and Ahmet cut his beard [short].

In VP ellipsis structures, only the VP constituents can be elided. The structure in (28) above is ungrammatical with the interpretation of the result phrase in the elided VP. This ungrammaticality indicates that it is not possible to elide the result phrase although it is a VP constituent in the analysis provided here. This problem can be explained if we assume that the result phrase is generated in Spec-vP position (stacked under vP in a similar fashion of the treatment of ECM subjects as pointed out by İnce (2003)). Then, the complement NP merged with the verb moves to a

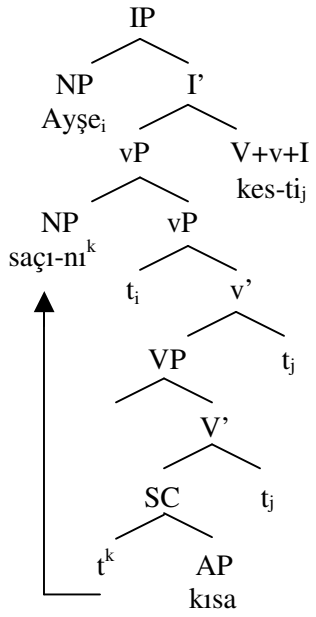
higher Spec-vP position created by adjunction to satisfy the necessary word order.

4.3.2. Small clause analysis revisited

In Section 4.2 we rejected SC analysis of RCs due to its wrong predictions on the data. However, it is also possible to assume at this point that the complement NP can move into a higher Spec position from the small clause to check the theta feature of the verb. This also conforms with the idea that configurations for theta role assignment can be created by movement. The possibility is illustrated in the examples (29) and (30) below. Example (15) is repeated as (29) below and the structure in (30) represents the derivation of (29):

29. [$_{IP}$ Ayşe [$_{VP}$ [$_{NP}$ saç-ı-nı] [$_{AP}$ kısa] kes-ti-ϕ]]
Ayşe hair-POSS3sg-ACC short cut-PAST-AGR 3sg.
Ayşe cut her hair short.

30.



The derivation above can be considered to explain the theta role problem in RCs in that the complement NP merges first with the result phrase AP as the small clause subject and checks its theta feature. It then moves to Spec-VP position to check the theta feature of the verb satisfying both theta role assigning predicates. Although this derivation seems to count as

an argument in favor of the SC analysis, it does not count as counter evidence for the analysis provided here since the paper showed that the SC analysis is problematic for independent grounds.

5. Conclusion

The paper showed that the syntax-semantics mismatch which is apparent in RCs in language can be solved by movement of a NP to a theta position to check a theta feature. This in turn, supports the claim that configurations for theta role assignment can be created by movement cf. Larson (1988), Hornstein (1999), Saito (2001), Bennis (2004) among others.

The paper provided counter arguments to the two analyses of the theta role assignment problem which is shown in RCs on independent grounds. The study showed that the two analyses make wrong predictions with respect to the facts presented by Turkish data. Hence, they are rejected in favor of a complex verb analysis.

The paper provided a brief discussion on the problem of theta role assignment in RCs, in Turkish. It left the discussion of subject and object oriented depictive structures which presumably have the same problem on theta role assignment for further research. Note that Turkish makes use of very limited number of RCs unlike languages such as English and German. Hence, the complete investigation of complex predicate structures will help to make generalizations on the exact nature of theta roles and their assignment to particular NPs in language.

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