

The Recognition and Syntactic Behaviour of Middles

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□ ABSTRACT □

The primary aim of the present paper is to investigate the syntactic distribution of middle verbs in English. Middle formation seems to involve demotion of the external argument and promotion of the internal argument to the grammatical subject position, as is the case in passivisation. This paper is organized as follows. In section 1, we offer a definition of the term “middle verb” and present some of its distinguishing features. In section 2, we look into the question of whether or not middles involve 0-roles. In section 3, we shed some light on the nature of the empty category and the syntactic position external arguments fill in middles. Then in section 4, we examine whether middles are the end-product of a movement operation. Finally, in section 5, we bring the paper to a close by concluding remarks to the effect that the empty external 0-roles in middles syntactically emerge as PROs.

Keywords: middle verb, 0-role, empty category, PRO, Projection Principle.

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ماهية أفعال المطاوعة وسلوكها النحويّ

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□ الملخص □

يكمن الهدف الرئيس للورقة الحالية في سبر أغوار السلوك النحوي لأفعال المطاوعة في الإنكليزية، إذ تتجلى صياغتها في التقليل من شأن مركب اسمي خارجي وإبراز مركب اسمي داخلي يقوم مقام الفاعل، كما هي الحال في المبني للمجهول. ويتم بناء هذه الورقة على النحو الآتي: نقدم في القسم الأول تعريفاً لمصطلح "فعل المطاوعة" ونبرز بعضاً من خصائصه المميّزة. ونتطرق في القسم الثاني إلى مسألة احتواء أفعال المطاوعة لأدوار محورية أو انتقائية. أما في القسم الثالث، فنقوم بتسليط الضوء على طبيعة الصيغة الصامتة في تراكيب أفعال المطاوعة والموقع النحوي الذي تشغله المركبات الاسمية الخارجية. ونبحث في القسم الرابع إمكانية عدّ تراكيب أفعال المطاوعة نتاجاً لعملية نقل. وأخيراً، نطوي هذه الورقة بعبارات ختامية مفادها أن الأدوار المحورية الخارجية الصامتة في تراكيب أفعال المطاوعة تبرز بوصفها حالات من "ضم الكبير".

الكلمات المفتاحية: فعل مطاوعة، دور محوري، مقولة فارغة، ضم(پر) الكبير، مبدأ الإسقاط.

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1. Introduction:

Middle verbs are verbs which can be either transitive or intransitive. When transitive, they can take an object and can also be made passive. When intransitive, they do not take an object. Look at these examples:

- (1) a. The fire burned the house. – transitive/active
 b. The house was burned by the fire. – transitive/passive
 c. The house burned. – intransitive/middle

In sentence (1a) *burned* is active because it has the object *the house*. In sentence (1b) *was burned* is passive, with *the house*, the object of sentence (1a) becoming the subject of the passive verb, and *the fire* becoming the agent. In sentence (1c) *burned* is not transitive, because *the house* is the subject and houses cannot burn anything. It is not passive, because there is no passive construction. It is technically active, but also intransitive, as there is no object. In effect, it shares both active and passive features, which is why we refer to it as middle.

Following Zwart (1997:1), middle constructions can be defined by the following properties:

- (2) i. **The external argument of the verb is not expressed.**
 a.*This novel reads easily (*by anyone).
 ii. **The verb has active morphology.**
 b.*This novel is read quickly.
 iii. **The action denoted by the verb is predicated over by an adverb.**
 c.*This novel quickly reads.
 iv. **The verb is of the activity-class, and the sentence as a whole is non-eventive.**¹
 d.*Fred is knowing the answer.

In brief, middle constructions are generated by a syntactic rule of Move α and are hence transitive while in the lexicon. Consider the following pair of examples:

- (3) a. Someone bribed the bureaucrats.
 b. Bureaucrats bribed easily.

In (3b), the determiner phrase (DP) in subject position is not the \circ Agent but the Theme of the verb. Cited in Keyser & Roeper (1984:383), Fiengo (1980) observes that “... in middles and passives there is a subject either stated or implied; in ‘the car was sold’ it is implied that there was an agent of the sale’ and in ‘foreign cars sell easily’ the same is true. The sentences ‘the milk spilled’ and ‘the milk was spilled,’ or ‘the tomato ripened’ and ‘the tomato was ripened,’ seem to contrast in this respect, the ‘intransitives’ implying no agent.”²

Middles occur frequently, especially where bureaucratic language is at issue:

- (4) a. Spanish translates easily.
 b. The luggage transfers efficiently.
 c. The goods will not transport easily
 d. Signals transmit rapidly.

However, not all transitive verbs are equally grammatical in the middle mode, as the following clearly illustrate:

- (5) a. *German acquires easily.
 b. *The analyses claim easily.
 c. *The question learns easily.
 d. *The question knows easily.

These constructions are grammatically fine, but semantically anomalous.

Moreover, middles cannot occur in progressive constructions. Take the following examples:

- (6) a. *Ducks are killing.
 b. *The surface is waxing.
 c. *These toys are assembling.

As these examples clearly indicate, middles behave like stative verbs by not appearing in imperative or progressive constructions, since neither middles nor stative verbs describe events:³

- (7) a. *Stefan is wanting the cake.
 b. *want the cake, Stefan!
 c. *The police are bribing.
 d. *Bribe easily, the police!

What is particularly characteristic of middles is that they must occur with adverbs:

- (8) a. *The police bribe.
 b. *The surface waxes.
 c. *The car drives.

Despite the fact that there are instances of middles like ‘the ferry sank,’ ‘the gate opened,’ which do not require postmodifying adverbs, it is therefore required that an adverb be present in order to instantiate the middle reading in (8).

2. Do Middles involve 0(Theta)-Roles?

A widely held property of middle constructions is that the Agent 0- roles (semantic roles played by arguments in relation to their predicates) are void of phonetic content, as illustrated in the following:

- (9) a. This novel reads nicely.
 b. This cheque transfers easily.
 c. Those cars sell quickly.

Fagan (1988) and Roberts (1986) ascribe the invisibility of these 0-roles to their being syntactically suppressed, i.e. capped. The Projection Principle (PrPr) requires that the properties of lexical items should remain constant throughout the derivation (cf. Chomsky (1981)). With this in mind, Fagan and Roberts claim that the Agent 0-role of middle verbs exhibit no phonological representation because it is lexically blocked from having any syntactic representation.⁴

However, Stroik (1992) argues against the syntactic suppression assumption by suggesting instead that the agent 0-role of middle verbs in (9a-c) is assigned as a PRO (in Government-Binding (GB) Theory, a null-case pronoun representing the understood subject of an infinitive complement of a control predicate) argument that is structurally

realized as a VP adjunct, in line with, as we shall see, Larson's (1988) Principle of Argument Demotion. As a result, a movement analysis is required for the externalization of the internal Theme 0-roles in (9a-c).

Stroik (1992:129) supports his analysis of the external 0-role being structurally represented in middles with two arguments. Firstly, he draws on data from subject-contained anaphors, as in the following:

- (10) a. Stories about **oneself** read nicely.
 b. Cards to **oneself** write easily.
 c. Rows with **oneself** end peacefully.

What the data in (10) clearly demonstrate is that anaphors can occupy the superficial subject position of middles. The question that arises here is: How are these anaphors sanctioned? Following Principle A of the Binding Theory that anaphors must be A-bound in their governing category, then for each anaphor in (10) to be properly bound, it must be coindexed with a phonologically invisible DP capable of c-commanding the anaphor. Following Belletti and Rizzi (1988), the c-command relation is operative at any syntactic level of representation. As is evident, there are only two positions for this empty antecedent to occupy: either within the subject NP or within the VP. Now if within the NP, then, following Stowell's (1989) analysis of the syntax of DPs, the antecedent could be the PRO subject of the DP. This suggests that (10a) could have (11) as its underlying structure.

- (11) [_{DP} PRO_i [_{N'} stories about oneself_i]] read nicely

The subject-contained anaphor in (11) would be properly bound by the arbitrary PRO within the subject DP.

Appealing though this analysis may be, it does pose serious problems. For one thing, the way PRO and *oneself* are indexed does indicate that the subject DP should read as follows: 'one's stories about oneself,' but the subject DP in (10a) does not trigger this meaning. Instead, the subject NP means 'any (one's) stories about oneself' – where the possessor subject NP refers independently of *oneself* –i.e. arbitrarily. Thus, we do not expect a PRO subject of the subject DP to be coindexed with the anaphor, as in (12).

- (12) [_{DP} PRO_i [_{N'} stories about oneself_j]] read nicely

The anaphor *oneself* in (12) must not be bound within the subject DP. Hence, for it to be bound at all, it must be bound within the VP.

For another thing, this analysis predicts that if the PRO position filled with an argument in middles cannot function as an antecedent for a subject-contained anaphor, then this will render the anaphor being left dangling –i.e. unbound – hence the ungrammaticality of such middles. The following data, taken from Stroik (1992:130), serve to test the above-mentioned prediction.

- (13) a. It seems that [today's news about oneself] always reads better than yesterday's.
 *It seems that [today's news about oneself] amazes me more than yesterday's.
 b. The candidates disagree so much that [today's negotiations with each other] will surely end abruptly.

*The candidates disagree so much that [today's negotiations with each other] will surely be criticised.

To account for the grammaticality would be to assume the presence of a nonovert antecedent filling some other position than the subject DP position in (11).

Additional support for the syntactic realization of the external 0-role in middles is illustrated by the following:

- (14) a. That surface paints quickly for *Stefan*.
b. No Chinese text reads easily for *Nancy*.

The only possible reading for (14a-b) is to regard the prepositional objects as Agents: 'Stefan is the painter of the surface;' 'Nancy is the reader of the text.' Hence, we must conclude that the external 0-roles are syntactically represented, contrary to what Fagan and Roberts have claimed. Hoekstra and Roberts (1993) argue that the PP is the experiencer argument of the adverb. However, for Stroik (1999), the PP is the demoted external argument of the middle verb.

3. The Nature of the Empty Category (EC) in Middles:

Now, we need to consider the features of the empty arguments in (10) and (13) and determine the exact syntactic position the external arguments occupy.

Given GB assumptions, each empty NP argument in (9) has its own independent 0-role; it must be (little) **pro** (a null nominative-case pronoun representing the understood null subject of a finite clause in a null-subject language), (big) **PRO**, or an **IMP**(licit) argument (cf. Iwata (1999)). Since English is a non-null-subject language, the empty argument cannot be *pro*. The alternative is that the empty arguments in (9) must be either **PRO** or **IMP**. We can now draw on Roberts's (1986) analysis for distinguishing **PRO** from **IMP**. Roberts assumes that (i) **IMPs** cannot bind anaphors, but **PROs** can, as in (15); (ii) **IMPs** cannot be controlled, but **PROs** can, as in (16); and (iii) **IMPs** cannot control into adjuncts, but **PROs** can, as in (17).

- (15) a. *Gifts were sent **IMP**_i to themselves_i.
b. They expected **PRO**_i to send gifts to one another_i.
- (16) a. *They_i expected scandals to be mongered **IMP**_i.
b. They_i expected **PRO**_i to monger scandals.
- (17) a. *The report was written **IMP**_i without **PRO**_i due care.
b. They expected **PRO**_i to write the report without **PRO**_i due care.

When we test the middles in (9) against Roberts's three properties, we are led to believe that the empty argument in middles functions like **PRO**. Consider the following data, some of which repeated here for convenience, where, as we have seen, middles permit their empty arguments to license anaphors.

- (18) a. Stories about oneself_i read nicely EC_i.
 b. It seems that [today's news about oneself_i] always reads better than yesterday's EC_i.
 c. Some poems read better aloud to oneself_i than others do EC_i.

Under a DP-analysis like (11), which would treat PRO as the antecedent for the anaphor in (18a), an EC would still be a prerequisite to making the presence of anaphors licit in (18b). Moreover, a DP-analysis cannot account for the anaphor in (18c), which is not contained within the DP. (18c) suggests that not only can middles have nonovert arguments –i.e. arguments whose function is to bind the anaphors – but also that these arguments must be PROs, rather than IMPs, because they do not bind the anaphors.

Roberts's second property, which assumes that PROs can be controlled, lends support to the claim that the EC in middles is PRO. Take the following examples:

- (19) a. Bill_i expects the Chinese text he was assigned will not translate easily EC_i.
 b. Cynthia_i believes that people think that talking to herself never ends quietly EC_i.
 c. Jim_i expects that the car he has just bought will sell quickly EC_i.

What the data in (19) clearly show is that the ECs involved can all be controlled by their respective coindexed antecedents, hence leading us to conclude that they are PROs, rather than IMPs.

The third property proposed by Roberts identifies PRO but not IMP as a possible controller, thus offering further evidence that the empty argument in middles is PRO, as illustrated in the following:

- (20) a. Most linguistics textbooks read poorly EC_i even after PRO_i reading them several times.
 b. Beetroots usually peel easily EC_i after PRO_i boiling them.
 c. Clerks bribe at best EC_i after PRO_i doing them a couple of favours.

Having determined that the external 0-role in middles is realised as a PRO argument, we still need to probe a little further into identifying the nature of the syntactic position it normally occupies. That is, since PRO is ungoverned, the external 0-role in middles is expected to surface in an A'-position –i.e. in an ungoverned position. Put differently, it cannot appear in A-position because such positions are governed by the respective heads of given constructions.

Following Larson's (1988) Principle of Argument Demotion (PAD), cited in Stroik (1992:134), we can account for the syntactic representation of the external 0-role in middles, and consequently for its appearance in an ungoverned A'-position.

(21) Principle of Argument Demotion:

If A is a 0-role assigned by X^k, then A may be assigned (up to optimality) to an adjunct of X^k.

Since the external 0-role in middles is assigned by the VP, the PAD would allow this 0-role to be downgraded from subject of TP (Tense Phrase) to VP adjunct, thus permitting the sentence (22a) to have the partial S-structure representation (22b).

- (22) a. Clerks bribe easily.
 b. [_{TP} Clerks [_{T'} T [_{VP} [_{VP} bribe easily] PRO]]]]

The facts the construction in (22a) captures include: (i) middles take two arguments, (Agent, Theme), represented syntactically; (ii) the external 0-role is PRO; (iii) the external 0-role does not emerge as the superficial subject. In order for (22b) to be a plausible structural representation of middles, we must, following Stroik's (1992, 1999) analysis, still demonstrate that PRO can occupy the VP adjunct position assigned in (22b).

For PRO to be able to be the downgraded external 0-role in (22b), it has to appear ungoverned in its adjunct position. Let's assume Chomsky's (1986b) Barriers-definition of government to determine whether or not PRO is ungoverned. On this version, α governs β iff α m(aximally)-commands β and there is no barrier for β , and α m-commands β iff α does not dominate β , and every maximal projection dominating α dominates β . Now, assuming that PRO can be governed in (22b), then it will have to be governed by one of two possible zero-level governors for PRO in (22b): T (Tense) or V. Despite T m-commands PRO, it cannot govern PRO because of VP – hence VP is a blocking category between T and anything within the VP, any PRO for that matter. By the same token, V cannot govern PRO in (22b) because the verb in (22b) can govern PRO if it m-commands it. But given that the VP maximal projection dominates V but not PRO, V does not m-command PRO and consequently cannot govern PRO either. Since neither T nor V governs PRO in (22b), PRO is ungoverned, and thus (22b) is a compatible representation for (22a).

What we have attempted to do so far is show that the external 0-roles in middles end up as arguments relegated to becoming VP adjuncts.

4. Do Middles involve Movement?

Following Roberts (1986), we assume that middles are temporary non-eventive verbs brought about by the failure of T-V coindexing. For him, the failure of this process precludes the VP from using T to project its external 0-role into the subject position. Thus, the syntactically represented external 0-role must be relegated. This demotion is obligatory, hence (23a) is required to have (23b) at D-structure:

- (23) a. Stories about oneself always read nicely.
 b. [_{TP} e [_{T'} T [_{VP} [_{VP} always read stories about oneself nicely] PRO]]]]

As is clearly shown, the Theme argument must be underlyingly represented within the VP because the Theme is logically marked by the verb (i.e. it must be a sister of V at D-structure).

Furthermore, following Roberts (1986) and Larson (1988), we assume that V can assign accusative Case only if coindexed with T. Given the absence of T-V coindexing in middles, the verb cannot assign Case to its object. Naturally, the object must move to the subject position to be case-marked.⁵ Thus, (23a) will have (24) as its corresponding S-structure representation:

(24) [_{TP} [Stories about oneself]_i [_{T'} T [_{VP} [_{VP} always read t_i nicely] PRO]]]

As already noted, middle formation hinges on two interwoven syntactic processes: (i) Agent relegation; and (ii) Theme promotion.

Anaphoric binding lends support for Theme promotion. Imagine the original position for the Theme were the subject position at D-structure, then the anaphor in (23a) couldn't have a c-commanding antecedent higher up in the syntactic representation. However, following Belletti and Rizzi's (1988) proposal that anaphors can be bound at any syntactic level, we can account for the anaphoric binding in (23a). On this analysis, the anaphor in (23a) will be bound at D-structure, as illustrated in (23b), being the level at which PRO c-commands the anaphor.

If handling of anaphoric binding in middles with empty external 0-roles is viable, then we would normally expect to find only those anaphors in middles that are compatible with PRO, hence the following are ruled out:

- (25) a.*Stories about himself always read nicely.
 b.*Faxes to themselves transmit quickly.
 c.*Rows with herself end dramatically.

As we have seen, since the external arguments in middles can overtly be represented, as in (14), it is predictable that the anaphors sanctioned by fully realized external arguments must be in agreement with the arguments, as demonstrated in (26):

- (26) a. Stories about himself read in no time for Stefan.
 b.*Stories about oneself read in no time for Martina.
 c.*Stories about himself read in no time for Martina.
 d.*Stories about themselves read in no time for Stefan.

The data in (26) clearly show that it is mandatory for anaphors to share certain features with external arguments. This in turn substantiates the analyses that require that anaphors be bound by external arguments at D-structure –i.e. before the Theme argument is promoted to the subject position.

5. Concluding Remarks:

Responding to Roberts (1986) and Fagan (1988), we have concluded that middle formation is the product of two interrelated syntactic operations: external 0-role demotion to a VP adjunction position and Theme promotion to the subject position,⁶ contrary to Roberts's and Fagan's handling of the argument structure of a middle verb. Our treatment of middles has also predicted that the external 0-role can be either lexically realized or covert, thus concluding that nonovert external 0-roles in middles are syntactically realized as PROs.

Notes:

1. For Roberts (1986:196), middles cannot be formed from state verbs because “middle formation is a process of stativisation.”
2. Zwart (1998:110-111) argues that the subject of middles is generated in the external argument position of the verb where it gets a causative interpretation (not an agentive one. Hence, the subject is not a raised internal argument, and instead the adverbial is the complement of the verb.
3. Verbs that denote states never undergo middle formation in English:
 - a. *This language understands easily.
 - b. *This story believes easily.

However, for Rapoport (1999:149-150), only habitual middles entail the existence of an event, as illustrated by the following: This editorial reads *daily*. (habitual middle) where the adverbial explicitly refers to a habit.

4. Condoravdi (1989) has defined middles as involving generic quantification over events, contrary to the analysis in Fagan (1992), where middles are argued to involve generic quantification over subjects.
5. The claim that the object must be moved for Case-marking purposes is demonstrated by the following example, where the object DP violates the Case Filter which requires that overt DPs be Case- marked or be associated with a Case-assigning position.

*It never reads stories about oneself nicely PRO.
6. For Ackema and Schoorlemmer (1995), any adequate theory of middles will have to explain how middles can suppress their external arguments and yet remain transitive, and why the syntactically suppressed external argument comes to be interpreted, while the syntactically present reflexive pronoun doesn't.

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