

# A secret agent in the middle?

EVA KLINGVALL (LUND UNIVERSITY)

## Abstract

This paper is concerned with agentivity in middle constructions in English. More specifically, it investigates what the reported “agentive flavour” is. The paper argues that there is at least some evidence for an Agent argument being structurally present in some way in the middle. If that is the case, however, it has to be explained why some of the tests show negative results for the presence of an Agent. Other possible ways to analyse middles are also discussed, one of which claims that there is no Agent in middles, at any level. The agentive flavour is instead due to an association between certain verbs and the participants they normally take when used to refer to an event. However, as is discussed in the end of the paper, there is structural evidence that such an analysis is untenable.

## 1 Introduction

This working paper addresses one of the core issues within the study of middle constructions, namely whether middle constructions, in this case in English, have a logical subject argument.<sup>1</sup> Since logical subject arguments in many cases have the thematic role of Agent, the literature often discusses this issue under the notion of *agentivity* in middles.<sup>2</sup>

English middle constructions have active verb morphology but differ from active constructions<sup>3</sup>, as also passives do, as regards argument distribution:

- (1) I read this book. (active)
- (2) This book reads easily (\*by me) . (middle)
- (3) This book was read (by me). (passive)

---

<sup>1</sup> I take the *logical subject argument* to correspond to the semantic subject of a predicate. Syntactically, the logical subject argument is the external argument of a predicate. Section 2 discusses the notions of internal vs. external arguments.

<sup>2</sup> Note however that the notion of agentivity can often be used to refer to Agents in a *broad* sense, i.e. to refer to at least both Agents (Agent in the narrow sense) and Causers. (See section 2 for a discussion on the different thematic roles of the external argument.)

<sup>3</sup> This paper does not take a stand on *voice* issues. In other words, I stay indeterminate as to which voice middle constructions belong to. Referring to middles (or middle constructions), I simply refer to a sentence type with the (formal and semantic) characteristics given in the introduction above, whether these sentences belong to the middle, active or passive voice.

In both the middle and the passive sentence, the grammatical subject position is occupied by an argument, *this book*, that in the corresponding active sentence appears in object position. The argument in the subject position of the active sentence, on the other hand, is apparently absent from both the passive and the middle sentence. In English passive sentences, the underlying (i.e. logical) subject can optionally appear in a *by*-phrase, but it is unable to do so in the middle.

Middles also differ from active and passive sentences in terms of eventiveness. Thus, while the middle in (2) does not refer to a specific event of reading, the active and passive sentences in (1) and (3) do. Middles are therefore non-eventive sentences while active and passive sentences can be either eventive or non-eventive. Furthermore, middles are generally claimed to be generic statements, involving generic quantification either over events (e.g. Condoravdi 1989) or over individuals (e.g. Fagan 1992).

Although the logical subject argument, which in most cases is an Agent in the corresponding active sentence, is not overtly manifested in the middle, it is not clear whether it is present as an implicit argument. The question of whether the middle has an implied argument is, naturally, closely connected to the interpretation of the sentence. Crucially, there are different suggestions as to how middle constructions should be interpreted. Since Keyser & Roeper (1984), there is however a near consensus that middles differ from ergatives in their agentive interpretation. So while the sentence in (4), says something about the clothes in relation to an implied Agent, namely about the hanging of the clothes by some unspecified Agent, the sentence in (5) only says something about the clothes, namely something about their state or location (1984:383):

- (4) The clothes hang easily.
- (5) The clothes are hanging on the line.

The aim of this paper is thus to examine what the agentive flavour in middles like the one in (4) is. More specifically, the paper is concerned with the question of whether middles have a logical subject argument and, in case they have, in what sense it is present. If it is indeed the case that at least some middles contain a logical subject argument, the paper will also discuss whether some operation targeting the logical subject is a defining property of middle formation.

The investigation is primarily concerned with prototypical middles like the one in (2), in which the verb can appear with both a logical subject and a logical object in other construction types, as in the active sentence in (1), for instance.<sup>4</sup>

---

<sup>4</sup> I thus stay indeterminate as to the status of sentences of the following type, in which the verb never takes a logical subject argument (examples from Massam 1992:120):

- (i) Accidents happen easily.
- (ii) Some problems arise easily.

The investigation furthermore focuses on middles in which the grammatical subject is an underlying object (logical object argument) with the thematic role of Patient or Theme.<sup>5</sup>

The paper is structured as follows: Section 2 discusses differences between internal and external arguments and the possible thematic roles of the external argument. Section 2 also introduces the Uniformity of Theta Assignment Hypothesis and the Projection Principle and their implications for middles. In section 3, I give an account of the main views on agentivity in middles as presented in the literature. Section 4 discusses the interpretation of middles and the evidence for agentivity in middles, based on the results of some tests for agentivity. Finally, some concluding remarks are offered in section 5.

## 2 Thematic roles and argument structure

This section deals with a number of issues concerning thematic roles. Section 2.1 is concerned with the distinction between external and internal arguments and discusses the different theta-roles an external argument can have. Section 2.2 considers the relation between the syntactic structure and the interpretation of a sentence, in terms of arguments present at the different levels of the derivation.

### 2.1 External arguments

In the analysis of the semantic roles of the different participants in an event, a first division can be made between logical subjects and logical objects. The logical subject argument, as the term is used here, corresponds roughly to the notion of external argument. External and internal arguments are different in that only the latter are merged and assigned a theta-role inside the verb-phrase, VP. That is, while the object, i.e. the internal argument, is selected by the verb V and gets its thematic role in the complement of verb position, the external argument is merged outside the verb-phrase VP, as a specifier in a functional projection, a little *v*P (e.g. Johnson 1991, Chomsky 1995, Kratzer 1996, Arad 1999, Pylkkänen 1999). The little *v* contributes with special meaning to the verb. A causative projection, for instance, adds causativity and licenses a Causer in its

---

(iii) Royalists die well under torture.

<sup>5</sup> In less prototypical cases, the subject of the middle need not be an underlying object, but can be an underlying adjunct, and the thematic role of the grammatical subject is not restricted to being a Patient/Theme but can be e.g. an Experiencer or a Location (examples from Yoshimura & Taylor 2004):

(i) Jane discourages easily

(ii) This stage doesn't dance very well – The station platform dances better.

specifier position, while an agentive projection adds agentivity and licenses an Agent in its specifier position, etc.

It is a matter of discussion what different types of thematic roles the external argument can have. Dowty (1991) argues that the different external roles in fact can be grouped together as one role, a Proto-Agent. The Proto-Agent subsumes a number of roles, differing in degree of prototypicality. Therefore, the role of Proto-Agent can be said to cover the different roles possible for logical subject arguments. For some purposes, however, it is relevant to make more fine grained distinctions between the different types of external roles. Following Baker (1997), I will assume that the external argument can have the thematic role of (at least) Agent, Causer, or Experiencer. To distinguish between these roles is important when using some of the tests that give evidence for the presence or absence of an external argument of a specific kind. More specifically, as will be further discussed below, some of the tests are generally argued to react to the presence of an Agent but not to the presence of for instance a Causer.

A traditional definition of Agent is one where the Agent is “the one who intentionally initiates the action expressed by the predicate” (Haegeman 2002: 49). While an Agent presupposes intentional involvement, that is not the case with Causers. Consequently, Agents are necessarily entities with a mental capacity, thus human in most cases, while Causers can be either human or non-human. The subject in (6), *Mary*, is an Agent, because she is the one intentionally performing the action of killing. The subject in (7), *the storm*, on the other hand, causes the death of the man but cannot be said to do so intentionally, since only entities endowed with a mind can act intentionally. Therefore, *the storm* is a Causer and not an Agent:

- (6) Mary killed the fly on purpose.
- (7) The storm killed the man.

A subject denoting a human entity can be either an Agent or a Causer, depending on whether it intentionally performs the action denoted by the verb. The sentence in (8) is therefore potentially ambiguous:

- (8) John killed the butterfly

Experiencers differ from both Causers and Agents in that they do not cause any change, intentionally or unintentionally. Instead the Experiencer is “the entity that experiences some (psychological) state expressed by the predicate” (Haegeman 2002:49). Like Agents, they are, therefore, necessarily entities endowed with a mental capacity:

- (9) Mary/\*the book shelf likes short stories.

A sentence can potentially include more than one external argument. In the following sentences, for instance, *the football game* can be analysed as a Causer and *him* can be analysed as an Agent in (10) and as an Experiencer in (11):

- (10) The football game made him eat more.  
 (11) The football game made him hungry.

While *the football game* is the external argument of the light verb *made* in (10) and (11) and *him* is the external argument of *eat more* and *hungry*, respectively, in Finnish the causative component appears as a morphological ending on the main verb (Pylkkänen 1999:162):

- (12) Jussi            naura-tti            Maija-a.  
       Jussi.NOM    laugh-CAUSE    Maija-PAR  
       ‘Jussi caused Maija to laugh’

The relative order between the external roles, and thus between the functional projections, is an issue not agreed upon in the literature. The next section is concerned with the ordering of thematic roles in general and also with the principle governing the realisation of arguments.

## 2.2 The projection of arguments

Although thematic roles have to do with the semantic relation between a predicate and its arguments, the view held in this paper is that this semantic relation is a reflection of the syntactic structure. That is, an argument is assigned a thematic role in the position where it is merged. What particular role it gets is determined by the position of the argument relative to the predicate. This view is consistent with Baker’s Uniformity of Theta Assignment Hypothesis (UTAH) (Baker 1997:74):

- (13) Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure.

Translated into minimalist terms, what UTAH claims is that arguments with a particular thematic role are always merged in the same position in relation to the predicate. In the case of middle constructions, this means that the grammatical subject is base generated as a complement of the verb whenever it, as in the prototypical case, has the thematic role of Theme/Patient.<sup>6</sup> This also means that

---

<sup>6</sup> Recall, however, that the grammatical subject in less prototypical middles can also originate in an adjunct position and need not have the thematic role of Theme/Patient. In any case, the

if there is an Agent present in middles, this role is assigned to the argument in the specifier position of an agentive projection.

In the analysis of middles, another principle concerning thematic roles and syntactic structure is also important. In connection to the apparent absence of a logical subject argument in middles, the relation between the interpretation of a sentence and its syntactic structure must be clarified. Following Chomsky (1981), I assume the Projection Principle to be a valid characterisation of this relation (1981:29):

- (14) Thematic properties of lexical items must be structurally instantiated at all syntactic levels of representation (DS, SS, LF).

That is, I will adopt the underlying idea of this principle, namely that if an argument appears in the interpretation of a sentence it must be present in the syntactic structure of that sentence. The fact that an argument appears in the interpretation is a result of it being present in syntax. As regards middles, thus, if an Agent appears in the interpretation, it is necessarily present syntactically as well. And conversely, if no Agent appears in the interpretation of the sentence, no Agent can be present syntactically either.

Arguably, what is intended by ‘thematic properties of a lexical item’ in the Projection Principle is the argument structure of a predicate. Thus, what the Projection Principle states is that all *arguments* must be present at all levels of the derivation.

As has been mentioned above and will be further discussed below, however, it is often argued that middles have an ‘agentive flavour’. If it is the case that this agentive flavour nevertheless does not involve an Agent argument, it has to be examined what it instead consists of and how it is structurally realised.

### 3 Views on middles and agentivity

In this section, I will briefly discuss the main views on agentivity in middles that are argued for in the literature. The crucial difference between the analyses is whether they argue for middles to necessarily involve some operation targeting the external argument/theta-role (see e.g. Iwata 1999) or not (see e.g. Massam 1992). In other words, the issue at stake is whether an implied argument is a defining property of middles.

Looking at it from another perspective, the different analyses of middle formation can be divided into three groups of pre-syntactic (e.g. Fagan 1992, Ackema & Shoorlemmer 1994, 1995, Marelj 2004), syntactic (e.g. Keyser & Roeper 1984, Hoekstra & Roberts 1993, Stroik 1992, 1995, 1999, Fujita 1994),

---

grammatical subject moves from the position in which it is assigned its thematic role, whether this is a complement of verb position or an adjunct position.

and post-syntactic (e.g. Condoravdi 1989, Zwart 1998, Steinbach 2002) analyses, depending on at which level they argue for middle formation to take place. In general, both pre-syntactic and syntactic analyses take middles to obligatorily contain an implicit argument, typically an Agent. Post-syntactic analyses, on the other hand, do not normally take middle formation to necessarily involve any operation manipulating the thematic roles. In post-syntactic analyses, thus, middles can in principle be formed also from verbs that never take an external argument.

The following sections present the main ideas of the three types of analyses of middle formation and their stand on the issue of whether middles are agentive.

### 3.1 Syntactic analyses

Both syntactic and pre-syntactic analyses of middles are based on the agentive interpretation of middles, recognized since at least Keyser & Roeper (1984). That is, in general, both syntactic and pre-syntactic analyses claim that an Agent is involved at some stage of the derivation. They differ, however, in where they argue that this argument is present.

According to the syntactic analyses, following the Projection Principle, the Agent must be present in the syntactic structure in order to appear in the interpretation. The Agent argument is present syntactically as a covert element. Notably, the syntactic analyses differ in their views on the nature and properties of the covert element. Hoekstra & Roberts (1993) argue that the external argument is present as *pro*, which in middles is syntactically inactive. Middle *pro*, situated in Spec-VP, is assigned an *arb* (arbitrary) index by the lexical head V in syntax and is licensed differently from non-middle *pro* (1993:189-190). However, as pointed out by Steinbach among others, it is impossible to show that middle *pro* is actually present since it is not pronounced and since it is syntactically inert (2002:77).

In Stroik's (1992, 1995, 1999) analysis, on the other hand, the external argument is argued to be present as a syntactically active PRO. PRO, which appears in an adjunct position, is assigned the thematic role of the external argument in an argument demotion process (1999:120). Similarly, the external argument can be realised as a *for*-phrase, much in the same way as the external argument of the passive can be realised as a *by*-phrase. Stroik bases his analysis on evidence from binding and control. Whether Stroik's arguments hold is a disputable issue that I will return to in section 4. It should be noted, however, that pre-syntactic analyses in general do not take the results from Stroik's tests to be evidence for a syntactically present Agent argument.

### 3.2 Pre-syntactic analyses

According to pre-syntactic analyses, the Agent argument in middles is present in the lexicon and in the interpretative component, but not in the syntactic

structure. Fagan (1992) argues that middles involve generic quantification over an implied argument (1992:154). The implied argument is interpreted as human, but with arbitrary reference. The interpretation, furthermore, attributes ability or possibility (i.e. a modal qualification) to the arbitrary argument (1992:54). A sentence like the one in (15), thus, is interpreted as in (16)<sup>7</sup> (1992:155):

- (15) This shoe organizer mounts securely on a door or against a wall.  
 (16) People, in general, can mount this shoe organizer securely on a door or against a wall.

Pre-syntactic analyses argue that the Agent theta-role (or external theta-role) is lexically saturated since it is assigned to an arbitrary argument in the lexicon (e.g. Fagan (1992), Ackema & Shoorlemmer (1994, 1995), Marelj (2004)). Thematic roles are normally saturated (i.e. assigned to an argument) in the syntactic component of the derivation, thereby satisfying the Theta-criterion and the Projection Principle. Based on Rizzi's (1986) discussion of implicit objects, however, Fagan (1992) argues that arbitrary arguments are saturated already in the lexicon and therefore need not project to syntax. More specifically, Rizzi (1986) proposes that only non-lexically saturated roles are subject to the Projection Principle (Fagan 1992: 162). Also Marelj (2004) bases her analysis of middle formation on the idea that an argument can be assigned to an arbitrary argument pre-syntactically and that it, as a consequence of that, is not linked to syntax.

In connection with the view held by the pre-syntactic analyses, it should be noted that if arguments can be saturated in the lexicon, and, therefore, need not appear in syntax, then there must be a direct connection between the lexicon and the interpretation. Moreover, arguing in favour of lexical saturation, one also needs to define what the restrictions for this kind of operation are. That is, it has to be explained why not arbitrary arguments in all cases can be assigned a thematic role in the lexicon and consequently be exempt from appearing in syntax. This problem seems to be avoided in the post-syntactic analyses, since they posit no operation targeting the thematic grid (or its correspondence in the different models) neither in the lexicon (pre-syntactically) nor in syntax.

### **3.3 Post-syntactic analyses**

As opposed to both pre-syntactic and syntactic analyses of middle formation, post-syntactic analyses do not in general include argument demotion or deletion in the definition of middles.

---

<sup>7</sup> In connection to her interpretation of middles, Fagan remarks that although there is quite a difference in "focus of emphasis" in middle constructions and their interpretation, "the factual content of these middles and their paraphrases remains the same" (1992:155).



Zwart (1998) argues that no Agent appears in the interpretation, and thus neither in the lexicon, nor in the syntactic component. Condoravdi (1989) and Steinbach (2002), on the other hand, claim that an Agent can appear in the interpretation but nevertheless need not appear in the syntactic structure. According to Condoravdi, “the implicit agent can be had as an entailment of the lexical meaning of the verb” (1989:19). What Condoravdi claims is that an Agent can appear in the interpretation if the lexical meaning of the verb requires an Agent. When that is the case, however, the Agent still does not appear in the syntactic representation.

The idea that middles are non-agentive is held also by Rapoport (1999). According to her, middles do not contain a logical subject at any level (1999:147). The observation that some middles nevertheless appear to be agentive is due to an Instrument/Manner component in the verb. An important issue in connection to the post-syntactic analyses and Rapoport’s analysis is thus what kind of information can be present in the lexical item but need not result in any syntactic consequences.

### **3.4 Summary**

To summarise, the different analyses of middles can be grouped together on the basis of whether they argue for argument demotion/deletion (at some level of the derivation) to be an inherent characteristics of middles, and thereby part of the definition of middles, or not. While both pre-syntactic and syntactic analyses generally claim argument demotion/deletion to be a defining characteristics of middles, that is not the case with post-syntactic analyses. Therefore, post-syntactic analyses do not, in principle, exclude verbs that do not take an external argument from forming middles.

The analyses also differ as regards their view on the link between the lexicon and the interpretation of a sentence. While syntactic analyses argue that syntax is the link between the lexicon and the interpretation, so that everything that appears in the interpretation must also be present in syntax, pre-syntactic analyses allow for certain operations to take place in the lexicon, or at some other pre-syntactic level, with the result that certain things need not find their place in syntax. The post-syntactic analyses, finally, are somewhat more vague on the relation between the lexicon and the interpretation. Apparently, the agentive flavour, recognised in some of these analyses need not be the result of an argument being present syntactically, but can, for instance, be the result of some feature on the lexical verb. This idea, and similar suggestions, will be further discussed in the following sections.

## 4 Agentivity in middles

The preceding sections have given a short account of the main views on agentivity in middles. Regardless of the type of analysis that is chosen, most analyses still recognize at least some middles as having an agentive flavour. While some would argue that the implicit argument of the middle can have different theta roles, Fujita (1994), among others, argues that the implicit argument is necessarily an Agent in the narrow sense.<sup>8</sup> Recall, however, the view held by some post-syntactic analyses that agentivity is not a defining property of middles, since there are middles without an agentive flavour. Before looking into more detail what the agentive flavour might be, let us return once more to the interpretation of middle constructions.

The different interpretations of middles that are proposed in the literature generally focus either on some ability of an arbitrary Agent (or logical subject), or on some property of an object, i.e. the grammatical subject. Moreover, although this has only been mentioned in passing, they either assume middles to primarily involve generalisations over implied Agents (e.g. Fagan 1992) or over events (e.g. Condoravdi 1989).

It seems most reasonable to say that middles *primarily* specify some property of an object, i.e. of the grammatical subject of the sentence:

- (17) This bread cuts smoothly  
 (18) This bread is such that, in general, the cutting of it is smooth.

Although no Agent argument appears in the paraphrase in (18), the sentence is at least indirectly agentive in the sense that a cutting event presupposes the presence of someone cutting. Unlike ergatives, thus, middles of the kind in (17) cannot be explicitly *non-agentive*.

In the following sections, I will investigate what this agentive flavour might be, by using a number of tests that in different ways react to the presence of an Agent. As pointed out by Marelj (2004) and as will be discussed in the relevant cases, some of the standard tests for agentivity should be used with caution, since it is not entirely clear what they show. That is, some of the tests might be sensitive to more than one thing (i.e. not only the presence of an Agent argument) and one might therefore be uncertain as to what conclusions can be drawn from the results of the tests.

Before we examine agentivity in middles, let us see how agentivity is dealt with in relation to other sentence types where the logical subject is at least apparently absent. In the case of passives and impersonals, Blevins (2003) argues that they differ with regard to their implicit external argument.

---

<sup>8</sup> The reader is referred to Fujita (1994) for the discussion in which he argues that ergatives have an implied Causer while middles have an implied Agent.

Impersonals, but not passives, have a suppressed logical subject, i.e. a logical subject that is still present in the structure but which is not overtly realised (2003:475). In passives the logical subject is instead demoted. According to Blevins, the demotion operation consists of both a deletion operation of the logical subject and a non-obligatory demotion operation in which the semantic role of the deleted argument is assigned to an oblique (2003:481). Suppressed and deleted subjects have different properties. While the suppressed subject is available for syntactic processes such as binding of a reflexive pronoun, the deleted subject is not (2003:475). Naturally, what is of interest in this paper is whether middles pattern with impersonals or passives with regard to the logical subject argument.

#### **4.1 Instrument phrases**

One way to show that middles are agentive in some sense is to add a phrase that refers to an instrument. Following Reinhart (2000) and Siloni (2003), Marelj uses the Instrument Test to pinpoint the difference in interpretation between middles and ergatives (2004:116):

- (19) The window opens easily with a knife.
- (20) The window opened \*with a knife.

As the examples show, an instrument phrase can be added to the middle but not to the ergative sentence. According to Marelj, instrument phrases require the presence of an Agent either in syntax or in semantics.<sup>9</sup> In middles, Marelj argues for independent reasons, the Agent is absent from syntax but present semantically, while it is absent at all levels in ergatives.

An alternative solution would be to say that the instrument phrase requires the presence of an agentive projection. This is what is proposed by Manninen & Nelson (2004) in the case of licensing of agent-oriented adverbs in passives. For passives, Manninen & Nelson argue (2004:230):

We assume passivization to equal the presence of a voice feature (i.e. a marked value [passive]) on the highest possible v head. A v head which is [passive] cannot license an argument in its Spec,vP position, although it still retains its other properties, including its basic semantics. The inability to licence an argument in the highest Spec,vP position is what creates the effect of argument “demotion” or “deletion” [...].

In other words, the passive still has an ‘agentive’ projection, although an Agent is not licensed in the specifier position. It thus seems to be the case that it

---

<sup>9</sup> As regards the Instrument Test, Marelj bases her argumentation on the Instrument Generalization in Siloni (2003): “An instrument requires the explicit (syntactic) or implicit (semantic) presence of an Agent in order to be realized syntactically” (Marelj 2004:116).

is the presence of this projection, rather than of the Agent argument itself, that allows for certain agent-oriented elements to appear in a sentence. If middles can appear with an instrument phrase, this might be evidence for an agentive projection, as in the case of passives.

## 4.2 Agent-oriented adverbs

Another element that is argued to require the presence of an Agent is an agent-oriented adverb. According to Roberts, adverbs of this class require both an Agent and an event (1987:74):

- (21) I phoned my sister (intentionally).  
 (22) I resemble my sister (\*intentionally).

The sentence in (21) is well-formed with or without the adverb, while the sentence in (22) is ill-formed when the adverb is included. The sentence in (21) contains both an Agent subject and an event, while the sentence in (22) contains neither an Agent nor an event. It should be noted that Roberts's definition of Agent is different from the one used in the present paper. For Roberts, an Agent is more or less the same thing as an external argument (1987:45-51) and therefore the subject in (22) is an Agent, in his view. With the definition of Agent used in the present paper, however, it seems less reasonable to separate between agentivity and eventiveness.<sup>10</sup> That is, an Agent presupposes an event but an event does not presuppose an Agent.

As concerns passives, we note that they can appear with an agent-oriented adverb if they do not include a *by*-phrase denoting a non-human entity:

- (23) This book was read intentionally (by me).  
 (24) The house was destroyed (\*intentionally) by the storm

Since the passive sentence in (23) can appear with an agent-oriented adverb, we might conclude that it contains an Agent argument or, following Manninen & Nelson (2004), that it contains an agentive projection that is able to license the adverb. Since the sentence in (24), on the other hand, cannot appear with an agent-oriented adverb, it is reasonable to conclude that it does not include an agentive projection.

---

<sup>10</sup> According to Roberts, the sentence in (i) is ill-formed because it lacks an Agent, while the sentence in (ii) is ill-formed because it lacks an event (1987:71):

- (i) \*The ice deliberately melted.  
 (ii) \*John intentionally knew the answer.

With the definition of Agent that is used in the present paper, on the other hand, the sentences in both (i) and (ii) are ruled out because they lack an Agent.

Middles, as opposed to passives, are normally said to be unable to co-occur with agent-oriented adverbs altogether:

(25) This book reads (\*intentionally) easily.<sup>11</sup>

The conclusion seems to be that middles contain neither an Agent, nor an agentive projection, since agent-oriented adverbs cannot be licensed in them. However, on closer inspection, it seems that certain middles are not completely ill-formed with an agent-oriented adverb:

(26) ?Prisoners intentionally hang easily.

(27) ?Kamikaze pilots intentionally die easily.

In both (26) and (27), the grammatical subject denotes a human entity. Although the subjects in these sentences would not be interpreted as Agents if the agent-oriented adverbs had not been present, it seems that they get an agentive interpretation when the adverbs are included in the sentences. The agent-oriented adverb in these sentences is not directed towards an implicit Agent but towards the grammatical subject. The difference between the middle in (25) and the ones in (26-27) is that the subject in the former is non-human, while the subjects in the latter are human. The sentences in (26-27) are therefore evidence that agent-oriented adverbs in fact are sensitive to humanness rather than agentivity, but also that a non-agent can get an agentive interpretation with the aid of an agent-oriented adverb. Further evidence for this comes from the following sentence in which the adverb can be directed either towards the grammatical subject, *John*, or towards the argument of the *by*-phrase, *Mary* (McCawley 1998:676):

(28) John has been intentionally<sub>J/M</sub> ignored by Mary.

The conclusion drawn above, namely that middles include neither an Agent nor an agentive projection, however, still seems to hold. That is, if agent-oriented adverbs are disallowed in middles, unless the grammatical subject is human, this means that the agent-oriented adverb is never licensed by an implicit argument in middles, in contrast to passives.

Let us once more return to the question of eventiveness. Stroik (1992:128-129) argues that the inability of middles to co-occur with an agent-oriented

---

<sup>11</sup> The order of the adverbs does not seem to make any difference with regard to well-formedness in this case:

(i) This book reads easily (\*intentionally).

(ii) (\*Intentionally,) this book reads easily.

adverb might be due to the lack of event, rather than to the lack of Agent. However, even if middles are non-eventive in the sense that they do not refer to specific events, they might still generalise over events. As long as that is the case, namely that they involve generalisation over events, their non-eventiveness is not likely to be the reason for the inability of agent-oriented adverbs to appear in them, as the following sentence shows:

(29) John intentionally smokes a cigarette a day.

This sentence is non-eventive since it does not refer to a specific event, but generalises over events. Nevertheless, it is well-formed with the adverb. Therefore, either Stroik's argument does not hold or middles do not generalise over events at all.<sup>12</sup>

To summarise, according to one view, agent-oriented adverbs require the presence of both an Agent and an event. If it is the case that agentivity and eventiveness can be separated, then this test cannot be used to show that an Agent is not present in middles unless it is the case that middles do not involve events in any sense. According to another view, agent-oriented adverbs require the presence of an Agent argument or, arguably, at least an agentive projection. Since agent-oriented adverbs are disallowed in middles, it seems that middles contain neither an Agent nor an agentive projection. This latter view appears more consistent with the view held in this paper, namely that an Agent always presupposes an event at some level.

### 4.3 Control

Another test that is argued to give evidence for the presence of an implicit argument involves the insertion of a control clause. Control clauses are analysed as containing an understood subject, realised as an empty category (PRO) and co-indexed with the main clause subject. The subject in the infinitival clause is interpreted as identical with the subject in the main clause:

(30) Mary<sub>i</sub> read the book PRO<sub>i</sub> to learn more about physics.

However, the subject of the control clause is not always identical with the subject in the matrix clause. In that case, PRO is not controlled syntactically but gets its interpretation outside the sentence, i.e. is logophorically controlled:

(31) This park was built PRO to keep people happy.

---

<sup>12</sup> Generic sentences generalising over an individual can in some cases co-occur with an agent-oriented adverb. In those, however, the subject gets an agentive interpretation:

(i) Italians are intentionally chain smokers.

In the sentence in (31), the ones building the park need not be the ones actually having the intention of making people happy.

Passive sentences can in some cases take a control clause. However, a control clause is disallowed when the underlying subject is non-human. That is because it is the underlying subject that controls PRO in passives and the controlling entity gets an agentive interpretation<sup>13</sup>:

- (32) This book was read (by someone) PRO to learn more about physics.  
 (33) This house was destroyed by the storm (\*to create more space).

The fact that passives in some cases can licence a control clause seems to be problematic if one wants to use Blevins' (2003) analysis of passives. According to his analysis, the deleted argument in passives is not available for licensing purposes, in contrast to the suppressed argument in impersonals. However, this is probably not a problem in the analysis of Manninen & Nelson (2004) where passives retain an agentive projection.

In the case of middles, there is conflicting evidence. On the one hand, Erteschik-Shir & Rapoport (1997) claim that middles cannot co-occur with control clauses because middles do not contain an implicit argument (1997:142):

- (34) \*This bread cuts (easily) PRO to feed an army.

On the other hand, Stroik gives evidence that middles can co-occur with a control clause if it is a gerundive adjunct although they cannot if it is an infinitival adjunct (1992:134, 1995:169):

- (35) Bureaucrats bribe easily PRO<sub>i</sub> after PRO<sub>i</sub> doing them a favour or two.  
 (36) \*Bureaucrats bribe easily PRO<sub>i</sub> PRO<sub>i</sub> to keep them happy.

According to Stroik (1995), the contrast in well-formedness between the sentences above is evidence that PRO in the non-finite clause in (35) is controlled by the implicit argument, i.e. PRO in the matrix clause, rather than being licensed logophorically. In the analyses that argue against Stroik (e.g. Ackema & Schoorlemmer 1995, Zribi-Hertz 1993), an Agent argument is claimed to be present semantically but not syntactically. What these analyses cannot explain, however, is why PRO can be licensed logophorically in (35) but not in (36). Stroik, on the other hand, argues that the two sentences differ as to where the adjunct is situated and consequently in control. While temporal and

---

<sup>13</sup> It should be noted that a control clause can be allowed even if the underlying subject is non-human if PRO is logophorically licensed:

- (i) The authorities<sub>i</sub> allowed the house to be destroyed by the storm PRO<sub>i</sub> to create more space.

manner adverbials are VP adjuncts or VP internal adjuncts, reason adverbials are TP adjuncts. Since the implicit Agent, according to Stroik, appears as PRO in a VP adjunct position, it follows that reason adverbials cannot be c-commanded and controlled by PRO, while temporal and manner adverbials can (because they appear below it) (1995:169).

Recall that middles primarily specify some property of the grammatical subject. The control clauses in (35) and (36), however, seem to focus on the logical subject argument. Therefore, the control clause creates a clash in focus between the logical subject argument and the grammatical subject. Arguably, this clash is most prominent when the control clause is of the purpose clause type.<sup>14</sup> In fact, the sentence in (37) is less ill-formed when the control clause is directed towards the grammatical subject:

(37) ?Bureaucrats bribe easily to keep themselves happy.

It should be noted, however, that the relative acceptability of the control clause in (37) is not evidence for a logical subject argument being present, since the control clause is licensed by the grammatical subject rather than by the logical subject. In fact, the grammatical subject seems to get an agentive/causative interpretation when the non-finite clause is present in (37).

If Stroik is right in his analysis, it seems that at least some middles contain an implicit argument. However, if the difference in well-formedness between the sentences in (35) and (36) can be explained in some other way, the analysis where PRO is licensed logophorically is not necessarily ruled out. As long as that difference is not given an independent explanation, however, there seems to be evidence for an implicit argument being present in at least some middles.

#### 4.4 Reflexive pronouns

Another debated issue is whether the presence of a reflexive pronoun in a middle construction is evidence for a syntactically present Agent argument. Crucially the reflexive form of a pronoun can be used either as a ‘true’ reflexive pronoun, in which case it is bound by an antecedent, or it can be used as a logophoric element, in which case there is no syntactic binding involved (e.g. Reinhart & Reuland 1993). As concerns reflexives and middles, thus, the question is whether the reflexive pronoun appears as a logophor or if it is bound by an implicit Agent argument. Once more, Stroik (1992, 1995, 1999), referring to Reinhart & Reuland’s (1993) theory of reflexivity, argues in favour of

---

<sup>14</sup> Fagan proposes that such a clash, in fact, is the reason why agent-oriented adverbs are excluded from middles: “The focus of the middle is on the properties of the patient, not the agent; the purpose of a middle is to attribute a property to the patient. Because an agent-oriented adverb posits a trait in the agent and thus focuses on the agent, the presence of such an adverb in a middle creates a clash.” (1992:156)



syntactic binding while, among others, Zribi-Hertz (1993) and Ackema & Schoorlemmer (1994, 1995) argue for a logophoric analysis. The sentences of interest are of the following types (Stroik 1992:133, 1999:127):

- (38) Books about oneself never read poorly.  
 (39) Mary<sub>i</sub> photographs well (only) for Max and herself<sub>i</sub>/\*her<sub>i</sub>.

The pronoun in the sentence in (38) can quite convincingly be argued to be a logophor since it is contained inside a DP and is therefore not in itself an argument of the predicate and consequently not subject to syntactic binding (Ackema & Schoorlemmer 1995:177). In the sentence in (39), however, the fact that the reflexive form but not the personal form of the pronoun is allowed suggests that the prepositional object is an argument of the predicate (Stroik 1999:127). Thus, what Stroik argues is that the prepositional object is the overt counterpart to PRO, in other words the Agent argument, in the same way as in passives (1999:129):

- (40) Mary<sub>i</sub> was photographed by herself<sub>i</sub>/\*her<sub>i</sub>.

Stroik refers to sentences like the ones in (38) and (39) to argue that the middle verb projects all its arguments syntactically. In (38), Stroik argues that the reflexive pronoun contained in the grammatical subject is bound by the implicit Agent, PRO. As we have seen, however, his argument on this point is not convincing. The sentence in (39), on the other hand, is intended to show that the argument of the PP is a true argument of the verb, which it might very well be. If it is, it means that the logical subject argument is syntactically realised in this sentence. However, there does not seem to be compelling evidence that the logical subject argument is *always* projected in middles. The next section will discuss the role of the *for*-phrase in somewhat more detail.

#### 4.5 *For*-phrases and *by*-phrases

It is a well known fact that middles differ from passives in that middles cannot appear with a *by*-phrase:

- (41) \*This bread cuts easily by me.  
 (42) This bread was cut by me.

The inability of the middle to co-occur with a *by*-phrase is often taken to be evidence that there is no syntactic Agent argument in middles (e.g Erteschik-Shir & Rapoport 1997:142). In contrast, Blevins argues that the *by*-phrase is excluded if there is a covert Agent present in the sentence, as is the case in impersonals (2003:475). Middles, however, can often appear with a *for*-phrase,

which has often been argued to correspond to the Agent argument (e.g. Stroik 1999:120):

(43) Bureaucrats bribe easily for Sam.

As in the case of passives, a process known as Argument Demotion (Larson 1988) is argued to be involved in middle formation. In this process, a thematic role is assigned to an adjunct instead of an argument of the predicate<sup>15</sup> (Stroik 1999:120). According to Stroik, the *for*-phrase is the overt counterpart of PRO. This view, however, is incompatible with the claims in Blevins (2003), according to which a deleted argument can resurface as an adjunct but a suppressed argument cannot, since it is still present in the structure. If middles are similar to passives in this respect, then it cannot be maintained that middles contain a logical subject in the form of PRO.

It is sometimes discussed what thematic role the *for*-phrase of the middle has. Stroik (1992, 1995, 1999), among others, analyses it as an Agent, while for instance, Hoekstra & Roberts (1993) analyse it as an Experiencer, co-indexed with the Agent, which is present as *pro*. A number of things seem to be relevant in the discussion on the thematic role of the *for*-phrase. As stated above, I take middles to primarily specify a property of the entity in the grammatical subject position. Arguably, the *for*-phrase states for whom this property is valid. Therefore, it seems reasonable to say that the argument of the *for*-phrase is the logical subject argument. The sentence in (44) can thus be paraphrased as in (45):

(44) This book reads easily for me.

(45) In general, when I read this book, this book reads easily for me.

When no *for*-phrase is present, the property can probably be argued to hold in general, i.e. more or less for *people in general*.<sup>16</sup>

---

<sup>15</sup> Argument demotion (Larson 1988:352):

If  $\alpha$  is a [thematic] role assigned by  $X^i$ , then  $\alpha$  may be assigned (up to optionality) to an adjunct of  $X^i$ .

<sup>16</sup> However, I would argue that *people in general* is not always an appropriate interpretation of the implied logical subject. In the following examples, the logical subjects involve generalisation over individuals some specific set:

(i) Latin texts translate easily.

(ii) This car drives smoothly.

In (i), for instance, the implied logical subject is more likely to be something like *people in general, who know Latin*, and in (ii) *people in general, who can drive a car* rather than just *people, in general*.

It thus seems reasonable to say to the logical subject argument of the middle verb can, but need not, be realised on a PP-adjunct. In this sense, middles seem to behave like passives. However, some middles also seem able to pattern with ergatives, judging from the result in the so-called *all by itself* test.

#### 4.6 *All by itself*

It has been observed that some middles can appear with an *all by itself*-phrase, while others cannot (see e.g. Rapoport 1999, Erteschik-Shir & Rapoport 1997):

- (46) This kind of glass breaks easily all by itself.  
 (47) \*This kind of ice crushes easily all by itself.

Since the middle verbs that can appear with an *all by itself*-phrase are normally the ones that can also appear in ergative constructions, it is sometimes argued that constructions such as the one in (46) are in fact not middle constructions, but are instead ergative constructions (Fagan 1992:52). However, I will not exclude sentences like the one in (46) from the group of middle constructions. That is because the sentence in (46) just like the other well-formed example sentences in this paper are non-eventive statements, specifying some property of the entity in subject position.

If a middle construction can appear with an *all by itself*-phrase, this seems to indicate that the middle in question does not include the idea of an Agent being involved.<sup>17</sup> In this sense, thus, middles with an *all by itself*-phrase are similar to ergative sentences:

- (48) The glass broke all by itself.

As noted before, however, the ergative sentence differs from the middle in that it denotes a real event of breaking, which is not the case in the middle sentence.

According to Erteschik-Shir & Rapoport (1997) and Rapoport (1999), the fact that some middles can appear with an *all by itself*-phrase, while others cannot, is a result of differences in the verbs. In Rapoport's analysis, verbs of the *crush* type cannot appear with an *all by itself*-phrase since they contain an inherent Instrument/Manner component, which makes them incompatible with an element that explicitly excludes an Agent (1999:151). Verbs of the *break* kind,

---

<sup>17</sup> However, middles with verbs that can also participate in ergative constructions can sometimes appear with a *for*-phrase:

- (i) This kind of glass breaks easily for clumsy people.  
 (ii) This kind of window breaks easily for experienced burglars.

In at least the sentence in (ii), the argument of the *for*-phrase could correspond to the logical subject, in this case an Agent, of the sentence.

on the other hand, do not contain such I/M components and are therefore well-formed with an *all by itself*-phrase.

If a middle is well-formed with an *all by itself*-phrase, this seems to indicate that it lacks even an agentive flavour. If the middle is not well-formed with an *all by itself*-phrase, on the other hand, it is less clear what conclusions one can draw from that fact. However, the other tests discussed above do not give compelling evidence for the presence of an agentive projection in middles that cannot appear with an *all by itself*-phrase.

#### 4.7 The agentive flavour in middles

As the discussion in the previous sections shows, there is conflicting evidence as to whether there is an Agent in middles. Thus, for instance, the instrument test seems to indicate that middles are agentive, but whether that also means that there is an Agent argument present syntactically in middles is not clear. In a pre-syntactic analysis of middle formation, an Agent argument could be present semantically without being present syntactically. However, if one wants to maintain that syntax is the link between the lexicon and interpretation, a pre-syntactic analysis becomes problematic.

Following Stroik (1992, 1995, 1999), there is in fact syntactic evidence for an Agent argument being present in middles. Stroik argues that the syntactic Agent, present as PRO, is available in middles for binding and control. Others (e.g. Ackema & Shoorlemmer 1994, 1995), on the other hand, claim that Stroik's sentences are not instances of syntactic binding and control but instead involve logophoric anaphors. If the logophoric analysis is on the right track, however, it has to be explained why only some types of control clauses are allowed in middles. On the other hand, if Stroik is right that there is a syntactic Agent in middles, the fact that agent-oriented adverbs and *by*-phrases are not allowed in middles must be accounted for.

Although middles are unable to appear with a *by*-phrase, they can in many cases co-occur with a *for*-phrase. Crucially, the *for*-phrase is argued to correspond to the logical subject argument of the middle verb, in the same way as the *by*-phrase does in the case of passives (e.g. Stroik 1992, 1995, 1999). We may note, however, that the fact that a *for*-phrase can be licensed in middles does not necessarily mean that a logical subject argument is always present in middles. In fact, some middles can appear with an *all by itself*-phrase, which, in those cases, excludes the possibility of a logical subject argument being present in those sentences.

The question is what conclusions can be drawn from the results of the tests. As already mentioned, the pre-syntactic analyses seem undesirable since they among other things posit a direct link between the lexicon and semantics. The syntactic analyses, on the other hand, stand on somewhat shaky ground in that it is questionable whether they really manage to show that an Agent is

syntactically present in middles. Could we think of another analysis? Let us for a moment consider the possibility that middles in fact do not have an Agent argument at any level. Recall the claim made earlier in this paper, namely that an Agent presupposes an event in some sense (either a particular event or generalisation over several events). Let us also recall that middles are non-eventive, so that they do not refer to actual events. What the middle states is some particular property of the entity in subject position. The agentive flavour in middles is perhaps merely the result of an association we make for particular verbs. Consider once more the following middle:

(49) This bread cuts easily.

It might be the case that we interpret the middle in (49) as in some sense agentive because our knowledge of the world makes us associate the verb *cut* with someone performing the action of *cutting*. That is, an event of cutting cannot take place without someone performing this action. Again, if the middle in (49) specifies a property of *this bread*, the property in question is one of *easiness of cutting*, i.e. the property is linked to the (possible) performance of an action. Therefore, if we interpret the middle in (49) as agentive, that is because an Agent is indirectly involved. Crucially, however, since the Agent is not directly involved, it is not present structurally either, at any level. From this line of reasoning, the agentive flavour in middles is the result of our knowledge of the world, not of a particular argument or projection being structurally present.

In a (perhaps) slightly different way to look at it, the agentive flavour is due to some specific component in the verb. Erteschik-Shir & Rapoport (1997) and Rapoport (1999) argue that an instrument/manner component is present in the verbs that are interpreted as agentive although no Agent can be traced. According to Erteschik-Shir & Rapoport, this component is not able to license any agentive phrase in syntax (1997:142) although its presence has other structural consequences.<sup>18</sup>

However appealing it may seem, the idea that the agentive flavour in middles is not due to the syntactic presence of an Agent argument or even an agentive projection is not unproblematic. Consider a sentence like the following:

(50) This machine breaks easily.

This sentence, in fact, is ambiguous in that it can have either an agentive or a non-agentive interpretation. *This machine* is either a poor construction that easily breaks without anyone intentionally breaking it, or *this machine* is easy for someone to break. Whenever a sentence has more than one interpretation, in this sense, it is likely to be due to a difference in structure. However, if one

---

<sup>18</sup> The reader is referred to Erteschik-Shir & Rapoport (1997) for details.

argues that the agentive flavour is not structurally determined, one would probably argue the same to be the case with the causative flavour. The question is then what determines what interpretation the sentence will get. In fact, I take the possibility to have two readings for a sentence like the one in (50) as evidence that there is something in the structure determining what interpretation the sentence will have. In other words, the agentive interpretation is structurally realised in some way. What the nature of this structural reflex is, however, is still to be investigated.

Let us return to the initial question of this paper, namely whether middles are agentive and in the case they are, in what sense they are agentive. It seems fair to say that middles are not agentive in the same way as certain passive sentences are agentive. Unlike passives, middles resist a number of tests normally picking out the presence of an Agent. So, if there is an Agent present in middles, it is, for some reason, not syntactically active to the same degree as it is in for instance passive sentences. However, the possibility to get two different interpretations – both an agentive and a non-agentive – in some middles, together with the fact that at least some cases of control and binding seem to be syntactic is evidence that middles can have an Agent syntactically encoded. The fact that some middles have a clear non-agentive interpretation, however, leads to the conclusion that not all middles have a logical subject argument. Therefore, that does not seem to be a defining property of middles. In other words, middles could be formed also from verbs that never take a logical subject argument.

## 5 Concluding remarks

This paper has dealt with middle constructions in English and the way they are interpreted in terms of agentivity. Although the tests that are often used to show whether an Agent is present or absent give contradictory results in the case of middles, the conclusion seems to be that some middles can have a logical subject syntactically encoded. An interesting but not unproblematic analysis in which the agentive effect in middles is due to an association made between a verb and the participants it normally requires when it is used eventively was also discussed. As noted in the last section, however, the fact that some middles are ambiguous between an agentive and a non-agentive reading poses a problem for this kind of analysis. The arguments in favour of a syntactically present Agent, thus, at this moment seem somewhat stronger than the ones in favour of its absence. Admittedly, however, there are many puzzles still to be solved.

## 6 References

Ackema, P. & M. Schoorlemmer. 1994. The middle construction and the syntax-semantics interface. *Lingua* 93: 59-90.

- Ackema, P. & M. Schoorlemmer. 1995. Middles and nonmovement. *Linguistic Inquiry* 26:173-197.
- Arad, M. 1999. On 'Little *v*'. In *Papers on Morphology and Syntax, Cycle One. MIT Working Papers in Linguistics*, 33, eds. K. Arregi, B. Bruening, C. Krause & V. Lin, 1-26. Cambridge, Mass: MIT Press
- Baker, M. 1997. Thematic Roles and Syntactic Structure. In *Elements of Grammar: Handbook in Generative Syntax*. ed. L. Haegeman, 73-137. Dordrecht: Kluwer.
- Blevins, J.P. 2003. Passives and impersonals. *Journal of Linguistics* 39:473-520.
- Chomsky, N. 1981. *Lectures on Government and Binding*. Dordrecht: Foris.
- Chomsky, N. 1995. *The minimalist program*. Cambridge, Mass: The MIT Press
- Condoravdi, C. 1989. The middle: where semantics and morphology meet. In *MIT Working Papers in Linguistics* 11, eds. P. Branigan, J. Gaulding, M. Kubo & K. Murasugi, 16-30. Cambridge, Mass: MIT Press.
- Dowty, D. 1991. Thematic proto-roles and argument selection. *Language* 67: 547-619.
- Erteschik-Shir, N. & T.R. Rapoport. 1997. A theory of verbal projection. In *On Interfaces in Linguistic Theory* eds. G. Matus & M. Miguel, 129-148. Lisboa: APL/Edições Colibri.
- Fagan, S. 1992. *The syntax and semantics of middle constructions*. Cambridge: Cambridge University Press.
- Fujita, K. 1994. Middle, ergative, and passive in English – a minimalist perspective. In *The Morphology-Syntax Connection. MIT Working Papers in Linguistics* 22, eds. H. Harley & C. Phillips, 71-90. Cambridge, Mass: MIT Press.
- Haegeman, L. 2002. *Introduction to Government and Binding Theory*. Second Edition. Oxford, UK & Cambridge, USA: Blackwell
- Hoekstra, T. & I. Roberts. 1993. Middle constructions in Dutch and English. In *Knowledge and language. Vol 2: Lexical and conceptual structure*, eds. E. Reuland & W. Abraham, 183-220. Dordrecht: Kluwer
- Iwata, S. 1999. On the status of implicit arguments in middles. *Journal of Linguistics* 35: 527-553.
- Johnson, K. 1991. Object positions. *Natural Languages and Linguistic Theory* 9: 577-636.
- Keyser, S. J. & T. Roeper. 1984. On the Middle and Ergative Constructions in English. *Linguistic Inquiry* 15: 381-416.
- Kratzer, A. 1996. Severing the external argument from its verb. In *Phrase Structure and the Lexicon*. (Studies in Natural Languages and Linguistic Theory), eds. J. Rooryck, & L. Zaring, 109-137. Dordrecht: Kluwer Academic.
- Larson, R. K. 1988. On the Double Object Construction. *Linguistic Inquiry* 19: 335-391.

- McCawley, J. D. 1998. *The Syntactic Phenomena of English*. Chicago & London: The University of Chicago Press.
- Manninen, S & D. Nelson. 2004. What is a passive? The case of Finnish. *Studia Linguistica* 58(3): 212-251.
- Marelj, M. 2004. Middles and Argument Structure across Languages. Ph.D. dissertation. Utrecht: LOT.
- Massam, D. 1992. Null objects and non-thematic subjects. *Journal of Linguistics* 28: 115-137.
- Pylkkänen, L. 1999. Causation and external arguments. In *Papers from the UPenn/MIT Roundtable on the Lexicon*. MIT Working papers in linguistics 35. eds. L. Pylkkänen, A. van Hout & H. Harley, 161-183. Cambridge, Mass: The MIT Press.
- Rapoport, T.R. 1999. The English Middle and Agentivity. *Linguistic Inquiry* 30: 147-155.
- Reinhart, T. 2000. The Theta System: Syntactic Realization of Verbal Concepts. In *UiL-OTS Working Papers*. Utrecht: University of Utrecht.
- Reinhart, T. & E. Reuland. 1993. Reflexivity. *Linguistic Inquiry* 24: 650-720.
- Rizzi, L. 1986. Null objects in Italian and the theory of *pro*. *Linguistic Inquiry* 17: 501-557.
- Roberts, Ian. 1987. *The representation of implicit and dethematized subjects*. Dordrecht: Foris.
- Siloni, T. 2003. Active Lexicon. *Theoretical linguistics* 28: 383-400.
- Steinbach, M. 2002. *Middle Voice A Comparative study in the syntax-semantics interface of German*. Amsterdam/Philadelphia: John Benjamins Publishing Company
- Stroik, T. 1992. Middles and movement. *Linguistic Inquiry* 23: 127-137.
- Stroik, T. 1995 On middle formation: A reply to Zribi-Hertz. *Linguistic Inquiry* 26: 165-171.
- Stroik, T. 1999. Middles and reflexivity. *Linguistic Inquiry* 30: 119-131.
- Yoshimura, K. & J.R. Taylor. 2004. What makes a good middle? The role of qualia in the interpretation and acceptability of middle expressions in English. *English Language and Linguistics* 8: 293-321.
- Zribi-Hertz, A. 1993. On Stroik's analysis of English middle constructions. *Linguistic Inquiry* 24: 583-589.
- Zwart, J-W. 1998. Nonargument Middles in Dutch. In *Groningen Arbeiten zur germanistischen Linguistik* 42.

Eva Klingvall

eva.klingvall@englund.lu.se