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42 Middles

PETER ACKEMA and MAAIKE SCHOORLEMMER

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In this chapter, we will provide an overview of the properties of so-called middle constructions. A thorny issue that immediately arises in a discussion of middles is the proper delimitation of the subject of inquiry. It is not always easy (as we will see) to distinguish middles from a wide range of related sentence types, such as passives, inchoatives or anti-causatives, instrumental subject clauses, true reflexives, and others.¹ In all cases that will be considered true middles in this chapter the following statements hold:

(1)	a.	The external argument of the non-middle counterpart of the middle verb cannot be expressed as a regular DP-argument in the middle.
	b.	If the non-middle counterpart of the middle verb has a direct internal argument role, the subject of the middle sentence carries this role.
	c.	The middle verb is stative, non-episodic. The middle sentence is a generic statement. It expresses that the argument mentioned in (b) has a particular individual-level property, or that events denoted by the verb or the verb–argument combination have a particular property in general.

Some examples of middle sentences as they will be understood here are given in (2):

(2)	a.	Bureaucrats bribe easily.	
	b.	La Tour Eiffel se voit de loin.	French
		the Eiffel Tower REFL sees from afar	
		‘The Eiffel Tower can be seen from afar.’	
	c.	Dit boek leest als een trein.	Dutch
		this book reads like a train	
		‘This book is very easy to read.’	

Languages turn out to allow a range of syntactically and/or morphologically different middle constructions. Cross-linguistically, there are middles with and without a reflexive marker, agentive and non-agentive middles, personal and impersonal middles, argument and adjunct middles. Such contrasts will be discussed below.

In some languages, constructions that conform to the criteria in (1) do not have episodic counterparts, and obligatorily get a modal semantics: the middle verb is accompanied by an element expressing to what extent the activity expressed by the verb can be carried out, using an adverb like ‘easily’, a modal auxiliary, or negation. Such middles will be referred to as ‘type I middles’. In another group of languages, middles have formally identical episodic counterparts, with a passive interpretation. (Sometimes they can even use the equivalent of a *by*-phrase, typical for passives, to express the verb's underlying subject.) Such middles will be referred to as ‘type II middles’ from now on.

In the next section, we will discuss in what respects middle constructions in languages with either type of middle differ from various kinds of lookalikes. We will discuss the properties of type I middles in more detail, those of type II middles. In restrictions on middle formation are discussed. Finally, we review the different analyses that have been proposed in the literature for middles.

2 What is a middle and what is not?

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A description of what middles are as in (1) is in part syntactic and in part semantic. It is syntactic because it concerns the syntactic projection (or non-projection) of the base verb's external argument and the change in grammatical function of its internal argument. It is semantic because it concerns the stative character of middle verbs and the generic character of middle sentences. In this section, a number of both semantic and syntactic properties will be added to this definition, in the following way. A number of constructions from different languages will be reviewed that are similar to middles, either because they are to some extent synonymous, or they are translation equivalents of middles, or they are morphologically similar. In each case, the difference between this construction and the middle as defined earlier will be added to the definition of the middle, unless it voids the definition, in which case the particular class is added to the class of middles.

2.1 Middles vs. the middle voice

In Ancient Greek, reflexive/passive morphology is used in a construction that is neither truly reflexive nor truly passive. An example is (3):

(3)	eklegomai
	choose-REFL
	‘choose for oneself’ (not: ‘choose oneself’ or ‘be chosen’)

In such cases, the underlying verb's external argument is syntactically present, but there is a difference from the simple active use of the verb: the morphological marker provides the additional semantics that the action expressed by the verb is directed toward this external argument itself or that it is to this argument's benefit. Because this semantics gives the construction a somewhat intermediate status between the active and the passive, the verb is said to occur in the ‘middle’ or ‘medial’ voice in (3). The construction is very different from middles in the sense of (1), however. A crucial difference is the very fact that the external theta-role of the verb in (3) can still be assigned to a syntactic DP-argument. Moreover, in contrast to middles as in (1) with an overt reflexive marker, the reflexive marker in (3) expresses that there truly is a coreference relation between the subject and another argument of the verb. In many languages, the same semantics is expressed by reflexive pronouns:

(4)	a.	She bought herself a pen.	
		Ona kupila sebe ručku.	Russian
		she bought SELF-DAT a pen	
	b.	‘She bought herself a pen.’	
		Ze rukte zich de haren uit het hoofd.	Dutch
		she tore SELF the hairs out the head	
	c.	‘She tore the hairs out of her head.’	

We can safely conclude that verbs in the middle voice in languages like Ancient Greek are not middle verbs in the sense of (1), and we will leave them out of consideration henceforth.

2.2 Middles vs. reflexives

In almost all type II and German middles, a morphological marker is present that is identical to the one occurring in reflexive sentences. There are a couple of obvious differences between true reflexives and middles, however. In a true reflexive, the reflexive marker can be replaced by a direct object without affecting the semantic role of the grammatical subject. The grammatical subject expresses the ‘logical’ subject; it carries the verb's external theta-role. In a middle, replacing the reflexive marker with the direct object has the effect of changing the grammatical subject's semantic role: with the reflexive marker – i.e., as a middle – the grammatical subject carries the verb's internal argument role; with the reflexive marker replaced by direct objects, the only possible interpretation of the grammatical subject is as the logical subject. This distinction is illustrated below for German:

(5)	a.	Sie erschoss sich. (<i>sie</i> is logical subject)
		she shot REFL
		‘She shot herself.’
	b.	Sie erschoss den Sheriff. (<i>sie</i> is logical subject)
		she shot the sheriff
		‘She shot the sheriff.’

(6)	a.	Dieses Modell malt sich leicht. (<i>dieses Modell</i> is logical object)
		this model paints REFL easily
		‘It is easy to paint this model.’
	b.	Dieses Modell malt ein Stilleben. (<i>dieses Modell</i> is logical subject)
		this model paints a still life
		‘This model paints a still life.’

In some cases, reflexive verbs have no non-reflexive counterpart, in which case replacing the reflexive marker by a direct object is impossible. Such verbs are called ‘inherent reflexives’. Middles are never inherent reflexives; in other words, a middle always has a corresponding

non-reflexive verb. This in itself serves to distinguish between middles and reflexive verbs.

2.3 Middles vs. inchoatives

Inchoative verbs (also referred to as anti-causative verbs) express a change of state of their grammatical subject. They are similar to middles in lacking the expression of the logical subject argument. Also, in many languages they are morphologically identical to middles.

However, there are also substantial differences between middles and inchoative verbs. A crucial difference is that with inchoative verbs the semantics of an implied agent-like role is entirely absent, whereas in a middle this agent-like role is implicitly present (even though it is not assigned to an argument). Also, in contrast to type I middles, inchoatives can be eventive. These distinctions find their expression in a number of different properties.

2.3.1 Full reflexive adjuncts

In a middle sentence, a reflexive adjunct can refer to the implicit agent (see also), as in the following examples from French (Fagan 1992 : 58, from Ruwet 1976):

(7)	a.	Cela se dit facilement de soi-même.
		that REFL says easily of oneself
		‘It is easy to say that about oneself.’
	b.	Ce genre d’objet s’achète facilement pour soi-même.
		this type of thing REFL buys easily for oneself
		‘One easily buys this type of thing for oneself.’

In an inchoative sentence, this type of reflexive adjunct is impossible:

(8)	Quand tout s’effond autour de soi (*même), on perd la tête.
	When everything REFL collapses around one (*SELF), one loses one's head
	‘When everything collapses around one, one loses one's head.’

2.3.2 For-phrases

Middle sentences can contain a *for*-phrase, which appears to refer to the implicit agent (though see). In a sentence with an inchoative verb this is impossible:

(9)	Deze deur sluit makkelijk, zelfs voor kleine kinderen.	Dutch
	this door closes easily even for small children	
	‘Even for small children it is easy to close this door.’	

(10)	Wilde bloemen verwelken makkelijk in een vaas (*zelfs voor ouden van dagen).
------	--

(10)	wild flowers wilt easily in a vase even for OAPs
	'Wild flowers easily wilt in a vase (even for OAPs).'

2.3.3 Interpretation of easily

The semantic presence or absence of the agent role correlates with the interpretation of a modifier like 'easily' (Fellbaum 1986). In a middle, the interpretation of this modifier is 'not difficult to do'; in an inchoative the interpretation is 'at the slightest provocation'. This is illustrated by the contrast between (11) (middle) and (12) (inchoative):

(11)	Nieuwe deuren sluiten makkelijk/zonder moeite/*zomaar.	Dutch
	new doors close easily/without effort/all by themselves	
	'It is easy to close new doors.'	

(12)	Wilde bloemen verwelken makkelijk/zomaar/*zonder moeite in een vaas.
	wild flowers wilt easily/all by themselves/without effort in a vase
	'Wild flowers wilt quickly in a vase.'

Fellbaum shows that, at least in English, the two adverbs differ syntactically as well as semantically. In the 'not difficult' reading, the adverb occurs sentence-finally, whereas it may precede the verb in the other reading:

(13)	a.	This book reads easily.
	a'.	*This book easily reads.
	b.	Such cups wash easily.
	b'.	*Such cups easily wash.

(14)	a.	Small chicks die easily when left alone.
	a'.	Small chicks easily die when left alone.
	b.	Glass breaks easily.
	b'.	Glass easily breaks.

Note also that the inchoative, with the 'at the slightest provocation' reading for the adverbial modifier, can do without the adverb without a significant change in meaning of the predicate. The middle, with the 'not difficult' reading for the adverb, is bad or degraded without it:

(15)	a.	*The book reads.
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(15)	b.	??Such cups wash.
	c.	Small chicks die when left alone.
	d.	Glass breaks.

2.3.4 Stativity

Like any eventive predicate, an inchoative verb may occur in a stative context. When this happens, inchoatives become even more similar to middles than when they are eventive. The position and interpretation of adverbs like ‘easily’, however, indicate that a difference is still present. An example like (16a) thus is a stative inchoative verb, as is further illustrated by the impossibility of adding a *for*-phrase. It is also possible to derive a middle from transitive *melt*, in which case the adverb must occur sentence-finally and a *for*-phrase is possible (16b):

(16)	a.	Butter easily melts in the sun (*for bad cooks).
	b.	Butter (*most easily) melts most easily in a good frying pan (even for inexperienced cooks).

[Rapoport \(1999a\)](#) proposes to distinguish between two types of middles, namely agentive and non-agentive middles, which correspond to ‘ordinary’ middles and stative inchoatives as just discussed. The data in (16) are a first indication that non-agentive middles should not in fact be treated as middles, but as inchoative verbs in a stative context. This is further corroborated by the properties of the Norwegian ‘s-passive’, which appears to be a Type II middle construction. Such s-passives are fine when derived from transitive verbs, but impossible when derived from unaccusative verbs (Øystein Nilsen, p.c.):

(17)	a.	Disse filene ødelegges lett (av analfabeter).
		these files destroy-S easily (by illiterates)
	b.	Det bankes (mye) på døra.
		it knocks-S a-lot on the-door
		‘(Frequently) there is knocking on the door.’
	c.	*Det vokses (mye) på grøten.
		it grows-S a lot on the-porridge
		‘Somebody is growing (a lot) on the porridge.’

If stative inchoatives were a type of middle sentences, or in other words, if middle formation did not affect or use the presence of an external theta-role of the base verb, we would expect Norwegian s-passives to allow both types of verb as base. In fact, (possibly stative) inchoative verbs in Norwegian are derived using a full reflexive, and can easily be distinguished from the s-passive.²

To summarize, we have added the following defining property to middles (see also [Iwata 1999](#)):

(18) In a middle, the logical subject argument of the underlying verb is semantically present.

Whether or not (18) implies that this subject is also present syntactically in a middle (even though not assigned to a regular argument position: see (1a)) will be discussed in .

2.4 Middles vs. Easy-to-please constructions

Easy-to-please constructions (constructions with ‘*tough* movement’) are semantically very similar to middles. Here are some examples of this construction:

(19)	a.	This book is easy to read.
	b.	These trees are hard to cut down.

In *easy-to-please* constructions, the grammatical subject seems to be the verb's underlying object. Also like middles, *easy-to-please* constructions are generic statements and do not allow passive *by*-phrases. These two properties are illustrated below:

(20)	a.	*I witnessed these trees being hard to cut down.
	b.	*This book is easy to read by an experienced editor.

Furthermore, like many middles, the construction has a modal semantics, and as in these middles this semantics is independent of the adjective involved:

(21)	Deze bomen zijn (niet/goed/moeilijk) te vellen.
	these trees are (not/smooth/difficult) to cut down

If the main predicate were the adjective, it should be impossible to leave it out, contrary to the above Dutch data. We conclude that, at least in the Dutch *easy-to-please* constructions, the adjective modifies the modal semantics of the construction just as the adverb does in a middle.

However, *easy-to-please* constructions and middles also show some substantial differences, which make it impossible to treat them both on a par. A major difference involves the restrictions on either. In contrast to what seems to be the case for the *easy-to-please* construction, middles cannot be formed from just any transitive verb (see). Some pairs showing this contrast are given in (22):

(22)	a.	*This article understands only with difficulty.	
	a'.	This article is hard to understand.	
	b.	*This problem explains easily.	
	b'.	This problem is easy to explain.	
	c.	*Geld verliest gemakkelijk.	Dutch
		money loses easily	
	c'.	Geld is makkelijk te verliezen.	
		money is easy to lose	
	d.	*Pijn ondergaat niet gemakkelijk.	Dutch
		pain undergoes not easily	
		Pijn is niet gemakkelijk te ondergaan.	

(22)

d'.	pain is not easy to undergo		
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Along the same lines, it is clear that the range of modifiers that can be used in *easy-to-please* constructions does not match the range of modifiers that can be used in middles. Some modifiers can only be used in *easy-to-please* constructions (23), whereas others only occur in middles (24):

(23)

a.	This book is impossible to read.
b.	*This book reads impossibly.

(24)

a.	This meat cuts just like that.
b.	*It is just like that to cut this meat.

There is a further distinction between *easy-to-please* constructions and middles in English. Consider an adjectival passive embedded under the verb get:

(25) I can't get this book finished.

This construction can be incorporated into an *easy-to-please* construction, but not into a middle:

(26)

a.	This book is easy to get finished.
b.	*This book gets finished easily.

In general, it seems that middle formation targets (possibly complex) V^0 s, and the grammatical subject must be an argument of this verb (see). In contrast, *tough*-movement targets entire phrases and “the dependency path in a *tough* construction can be arbitrarily long” (Dalrymple and Holloway King 2000). That is, not only can logical objects of the verb in the adjective's direct complement appear as grammatical subject, but logical objects of more deeply embedded complements as well. This contrast is illustrated in (27) ((27b) and (27c) from Dalrymple and Holloway King 2000):

(27)

a.	Such a film is easy to make a complete mess of.
a'.	*Such a film easily makes a complete mess of.
b.	This book is hard to get her to avoid reading.
b'.	*This book easily gets her to avoid reading.
c.	This house is too old to get anyone to try to renovate.
c'.	*This house easily gets anyone to try to renovate.

Concluding, middles, comprising both the English-type (type I) and the French-type (type II), have some properties which set them apart from apparently similar constructions. We will now discuss the properties of one type of middles that do not apply to the other, starting with type I middles.

3 Type I middles

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Type I middles have a number of properties that allow them to be clearly identified as a class distinct not only from (stative) inchoatives, but also from many other constructions in the relevant languages.

3.1 Middles and modality: the property reading, potentiality, and stativity

A type I middle expresses a generic modal reading that can be roughly paraphrased as ‘anyone could (Adv) V’. For example, *this meat cuts easily* can be paraphrased as ‘anyone could cut this meat with ease’. This property of type I middles has two further properties as a necessary corollary, namely that such middles are stative predicates and that they (usually) contain some form of modification of the modality. These properties will be expanded on in this subsection.

3.1.1 Middles as stative predicates

A type I middle sentence is always stative. It cannot be used in any context that forces eventivity, like perceptual report, or as the answer to a question like ‘what are you doing?’ or ‘what is happening?’:³

	*Ik zie het boek moeilijk lezen.	Dutch
a.	I see the book with-difficulty read	
(28)	Wat gebeurt er? #De baby verschoont moeilijk.	
	what happens EXPL? the baby cleans with-difficulty	
b.	‘What is happening? It is difficult to change the baby's nappies.’	

This is an obvious difference between middles and use of the same underlying verb in other diatheses, like active, passive, inchoative, etc.:

	Ik zie Marie de suiker oplossen.
	I see Mary the sugar dissolve.
a.	‘I see Mary dissolve the sugar.’
(29)	Ik zie de suiker opgelost worden (door Marie).
	I see the sugar dissolved be (by Mary)
b.	‘I see the sugar being dissolved (by Mary).’
	Ik zie de suiker oplossen.
	I see the sugar dissolve
c.	‘I see the sugar dissolve.’

(30)	What is happening?
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(30)	a.	Marie lost de suiker op.
		Mary dissolves the sugar
	b.	De suiker wordt opgelost (door Marie).
		the sugar is dissolved (by Mary)
		‘The sugar is being dissolved (by Mary).’
	c.	De suiker lost op.
		the sugar dissolves

The stativity of middles, or more precisely their genericity, has been analyzed in different ways semantically. For example, [Condoravdi \(1989\)](#) argues there is quantification over events in middles, as in habituals (i.e., *bureaucrats bribe easily* is supposed to mean ‘all events of bribing a bureaucrat will be easy events’). [Fagan \(1992\)](#), on the other hand, argues there is quantification over potential subjects (i.e., *bureaucrats bribe easily* is supposed to mean ‘all instances of a bureaucrat will have the property of being easy to bribe’). Either way, the stative (perhaps habitual) reading of middles is always accompanied by potentiality (maybe modified by the adverb or other modifier: see below): a middle expresses any subject's ability to perform the action expressed by the predicate. The modality results in the stativity, not the other way around. This can be seen from examples like (31–32), which contrast ordinary stative predicates to middles:

(31)	a.	John plays Mozart beautifully, but I can't (play Mozart/play Mozart beautifully).
	b.	John loves to ski, but I can't (ski).
	c.	*This book reads easily, but I can't (read it).
	d.	*This egg peels easily, but I can't (peel it).

(32)	a.	#John plays Mozart beautifully, so I can do so too.
	b.	#John loves to ski, so I do too.
	c.	This book reads easily, so I can read it too.
	d.	This egg peels easily, so I can peel it too.

These examples show that potentiality does not occur without stativity, but stativity is fine without potentiality.

3.1.2 Modification of potentiality

A very well-known property of middles in languages like English, German, and Dutch is that they almost invariably come with a modifier like ‘easily’:

(33)	a.	Bureaucrats bribe ??(easily/only after a good lunch/ . . .).	
	b.	Dieses Buch liest sich *(leicht/schwer/ . . .).	German
		this book reads REFL easily/with-difficulty	

(33)		Zo'n stuk zingt *(niet gemakkelijk/lekker/ . . .).	Dutch
	c.	such-a piece sings not easily/comfortably	

We have to say 'almost invariably', because such modification is in fact not necessary under specific circumstances (Roberts 1987 ; Fagan 1992). First of all, the presence of a modal voids the need for an adverb:

(34) This meat may cut, but you never know.

When it is not obvious from the meaning of the verb and its arguments that a particular action is in fact possible, modification can also be left out altogether. In that case, merely expressing the fact that anybody can do it fulfills the Gricean maxim of relevance:

(35)	a.	This dress buttons.	
		Dieses Kleid knöpft sich zu.	German
	b.	this dress buttons (Fagan 1992 : 147)	

Alternatively, all modification present might be negation, expressing the absence of potentiality, or focus, emphasizing the nature of the potential event:

(36)	a.	Dit vlees snijdt niet.	Dutch
		this meat cuts not	
		'This meat won't cut.'	
	b.	Die aardappels ROOIEN, niet te geloven!	Dutch
		those potatoes dig-up, not to believe	
		'I can't believe how easy to dig up those potatoes are!'	

In similar cases, there is no potentiality modification either, but the way the action is carried out is specified to some extent. See (37) (cf. Fagan 1992):

(37)	a.	Stows on floor or shelf. (Fagan 1992)	
	b.	Das Wort <i>Thron</i> schreibt sich mit <i>th</i> .	
		the word <i>Thron</i> writes REFL with <i>th</i>	
		'The word <i>Thron</i> is spelled with <i>th</i> .' (Drosdowski 1970 : 601)	
	c.	Deze bloes sluit met een enkele knoop.	Dutch
		this blouse fastens with a single button	
		'This blouse is fastened with a single button.'	

3.2 Middles and passives: the external theta-role

In a middle sentence, in most cases the underlying verb's internal argument surfaces as the grammatical subject of the sentence. In this respect, middles are very similar to passives. It is nevertheless quite clear that type I middles are not passive. First of all, they don't show passive

morphology; in fact, in Dutch and English they do not show any morphology at all. Second, type I middles do not allow the expression of the base verb's external theta-role in a *by*-phrase:

(38)	a.	Such texts are usually translated by a professional translator.
	b.	Such texts do not translate easily (*by professional translators).

We can add two more defining properties to type I middles:

(39)	a.	Type I middles lack passive morphology.
	b.	Type I middles do not allow (the cognate of) passive <i>by</i> -phrases.

Despite the absence of passive *by*-phrases, type I middles do allow a *for*-phrase, as briefly discussed above. It has been argued, notably by [Stroik \(1992a\)](#), that this phrase is the expression of the logical subject role of the middle verb, like the *by*-phrase is in a passive. On the other hand, it has also been argued that the *for*-phrase is licensed by the adverbial modifier typically present in a middle ([Hoekstra and Roberts 1993a](#)) or by the modal semantics of the complete middle sentence ([Zribi-Hertz 1993](#); [Ackema and Schoorlemmer 1995](#)). We will come back to this issue in . For now, we note that, on an observational level, not all middles allow a *for*-phrase:⁴

(40)	a.	This book reads like mud (*for John).
	b.	These pizzas deliver very smoothly (*for anyone with a moped).
	c.	This dress buttons (*for everyone).

3.3 Middles and *lassen*-middles

Many languages have a construction that is semantically very similar to middles, but which involves an auxiliary verb. Following [Fagan's \(1992\)](#) terminology, we will refer to such sentences as '*lassen*-middles' (a term referring to the auxiliary *lassen* 'let' that occurs in them in German). Examples are given below:

(41)	a.	Dieses Buch lässt sich leicht lesen.	German
		this book lets REFL easily read	
		'This book is easy to read.'	
	b.	Het antwoord laat zich raden.	Dutch
		the answer lets REFL guessed	
		'The answer is easy to guess.'	

These constructions are sometimes synonymous with middles, but they do not share the restrictions found on middle formation in the relevant languages. For example, *lassen*-middles allow the expression of the main verb's external theta-role in a *by*-phrase, which is impossible in true type I middles:

(42)

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(42)		Dit probleem laat zich door schoolkinderen niet makkelijk oplossen.
		this problem lets REFL by schoolchildren not easily solve
	a.	‘This problem cannot easily be solved by schoolchildren.’
		*Dit boek leest niet makkelijk door schoolkinderen.
	b.	this book reads not easily by schoolchildren

Second, *lassen*-middles can be episodic, which, as noted, is impossible in type I middles:

(43)		Het probleem liet zich in tien minuten oplossen.
		the problem let REFL in ten minutes solve
	a.	‘The problem could be solved in ten minutes.’
		?*Het bleek dat dit boek makkelijk in tien minuten leest.
		it turned out that this book easily in ten minutes reads
	b.	‘It turned out that it is easy to read this book within ten minutes.’

Third, the formation of *lassen*-middles does not show the same restrictions that hold for middle formation with respect to what kind of verbs undergo it. This will be discussed in , when we have seen what those restrictions are.

Finally, a difference between real middles and *lassen*-middles that shows up in Dutch is that, whereas the real middle does not contain a reflexive marker in this language, such a marker is obligatory in the *lassen*-middle:

(44)	Het antwoord laat *(zich) raden.
	the answer lets REFL guess

We conclude that *lassen*-middles are not type I middles (see also [Fagan 1992](#)). This leaves two possibilities. Either they are not middles at all, or they are the counterpart in the relevant languages of type II middles (on which, see).

3.4 Impersonal middles

Some languages with type I middles have a construction very similar to middles, but which differs from ‘ordinary’ middles in being derived from intransitive verbs. Some examples of such ‘impersonal middles’ from Dutch are given in (45):

(45)		Het loopt lekker op deze schoenen.
		it walks comfortably on these shoes
	a.	‘These shoes are comfortable to walk in.’
		Het zit lekker in deze stoel.
		it sits comfortably in this chair
	b.	‘This chair is comfortable to sit in.’

(45)		Het rijdt moeilijk met slecht zicht.
		it drives difficult with poor view
	c.	'It is difficult to drive when the view is poor.'

The question is whether these constructions should be treated as middles. They presumably should, since they fulfill all criteria identified for middles in general. Impersonal middles are stative predicates:

(46)	a.	*Ik voelde het lekker zitten op deze stoel.
		I felt it comfortably sit on this chair
		'I could feel it was comfortable to sit in this chair.'
	b.	Wat gebeurt er? #Het zit lekker op deze stoel. what happens? it sits comfortably on this chair

Moreover, impersonal middles do not allow the expression of the verb's logical subject as an argument. They also fulfill all criteria identified specifically for type I middles. For instance, they express potential modality or a value judgment. Thus, *het rijdt lekker op deze fiets* 'it rides comfortably on this bike' can be paraphrased as *op deze fiets kun je lekker rijden* 'you can ride comfortably on this bike'. This modality is identical to what is found in personal middles. Also like ordinary middles, impersonal middles do not allow *by*-phrases:

(47)	a.	*Door ouden van dagen zit het lekker op deze stoel.
		by old-of-days sits it comfortably on this chair
		'This chair is comfortable for the elderly.'
	b.	*Het rijdt prettig op deze fiets door grote mensen.
		it rides nicely on this bike by tall people
		'Tall people can ride very well on this bike.'

As can be seen from the examples above, impersonal middles have the same morphological form as other middles, meaning they do not show any particular morphology at all in Dutch.

Our conclusion is that impersonal middles are true middles without any reservations. This, of course, has interesting consequences for the restrictions on middle formation, to be formulated below.

3.5 Adjunct middles

Dutch has a further type of middle-like sentence, which seems related to impersonal middles. Some examples are provided in (48):

(48)		Deze stoel zit lekker.
		this chair sits comfortably
	a.	'This chair is comfortable to sit on.'

(48)	b.	Deze tafel eet prettig.
		this table eats pleasantly
		‘This table is pleasant to eat at.’
	c.	Deze naalden breien lekker.
		these knitting-needles knit nicely
		‘These knitting-needles are nice to knit with.’

In such sentences, the grammatical subject is an element that would seem to be expressed as an adjunct in the active counterpart of the sentence. This is why they are generally called ‘adjunct middles’. Like impersonal middles, they derive from intransitive verbs (as in (48a, c)), or from transitive verbs whose objects are not expressed (as in (48b)). Thus, from some verbs it is possible to form both an ordinary middle, with the logical object functioning as the grammatical subject, and an adjunct middle. An example is given in (49):

(49)	a.	Ik stop de deken in in het bed.
		I put the blanket in in the bed
		‘I tuck in the blanket in the bed.’
	b.	Deze deken stopt makkelijk in.
		this blanket puts easily in
	c.	Dit bed stopt makkelijk in.
this bed puts easily in		

Like impersonal middles, adjunct middles behave like true middles of the type I persuasion. Thus, they are stative, and the sentence they head is a generic statement expressing potential modality (*deze stoel zit lekker* ‘this chair sits comfortably’ roughly means the same thing as *op deze stoel kun je lekker zitten* ‘you can sit comfortably in this chair’). Also, like any middle, adjunct middles do not allow the expression of the logical subject of the verb as a syntactic argument, nor do they allow this element to be expressed in a *by*-phrase:

(50)	a.	Deze fiets rijdt lekker (*door studenten).
		this bike rides comfortably (by students)
	b.	Dit bureau schrijft lekker (*door romanschrijvers).
		this desk writes nicely (by novelists)

They also show the same morphology as other middles, i.e., none in Dutch. We will come back to this interesting construction in . For now, we conclude that it is to be included in the general class of middles.

3.6 Middles and instrumental subject clauses

There is a close similarity between Dutch adjunct middles, as discussed in the previous subsection, and another sentence type in which instruments can surface as grammatical subjects of transitive verbs. This latter type is quite common across languages (in contrast, it seems, to adjunct middles, which do not occur in any of the languages mentioned so far except

Dutch). Some examples of these so-called ‘instrumental subject clauses’ are given in (51):

(51)	a.	This pen/ink writes very well.	
	b.	The key opened the door.	
	c.	Deze pen schrijft heel goed.	Dutch
		this pen writes very well	
	d.	De zon droogt de tomaten.	Dutch
		the sun dries the tomatoes	

At first sight, this construction might seem to be a type of adjunct middle after all, which would mean that adjunct middles are much more wide-spread than it seemed. However, there are good reasons to distinguish instrumental subject clauses from adjunct middles (cf. [Hoekstra and Roberts 1993a](#) ; [Cornips 1996](#)).

First and foremost, instrumental subject clauses may be transitive (see (51b, d)), whereas adjunct middles can never be transitive:

(52)	Deze theedoek droogt (*de borden) lekker.
	this towel dries (the dishes) nicely
	‘This towel is good to dry (the dishes) with.’

Second, instrumental subject clauses, although often used to express properties and therefore stative, can be used in eventive sentences:

(53)	a.	I thought you wanted to get rid of that pen? I did, but look: now it's writing well!
	b.	Wat gebeurt er? De zon droogt de tomaten!
		what happens? the sun dries the tomatoes!

Finally, [Cornips \(1996\)](#) provides evidence for the distinction from the diachrony of dialects on the southern Dutch–German border, in the area of the Limburg province, and in the adjoining Rhineland. In the late nineteenth century, three dialect groups allowed instrumental subject clauses without a reflexive marker. Adjunct middles either do not exist in these dialects or, which is more relevant to the argument, require a reflexive marker. (The modern variants of these dialects all allow instrumental subject clauses with a reflexive.) Relevant examples from Rhineland dialects are provided below (from [Cornips 1996](#) : 51–52):

(54)	a.	Der Saal sengt sich legt. (adjunct middle with reflexive marker)
		this hall sings REFL easily
	b.	Der Enk schrief got. (instrumental subject clause without reflexive marker)
		this ink writes well

Following Cornips, we conclude that instrumental subject clauses should be distinguished

from middles even in languages that allow adjunct middles.

4 Type II middles

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Many languages have middle constructions that differ from type I middles according to a number of important criteria, probably the most salient of which is the ability of these middles to occur in episodic sentences. It seems all languages of this type use the (historical) equivalent of a reflexive morpheme in middle sentences. Such middles occur, for example, in Italian, Spanish, French, Greek, Norwegian, Russian, and Serbo-Croat. We illustrate this with French:

	Cette étoffe se repasse rapidement.	
	this fabric REFL irons rapidly	
	a. 'This fabric can be ironed rapidly.'	(Zribi-Hertz 1993 : 348)
(55)	La Tour Eiffel se voit de loin.	
	the Eiffel Tower REFL sees from afar	
	b. 'The Eiffel Tower can be seen from afar.'	(Hulk and Cornips 1998)
	Cette histoire se raconte facilement.	
	this story REFL tells easily	
	c. 'This story can be told easily.'	(Gross 1975 : 102)
	Les enfants, ça s'invite facilement.	
	the children, that REFL invites easily	
	d. 'It is easy to invite children.'	(Fagan 1992 : 99)

Above we have shown that any middle, whether type I or type II, differs from passives and inchoatives in the same language. Type II middles may be harder to distinguish from inchoatives because they can be episodic, but still there is a distinct sense in which the original verb's external theta-role is involved in the event in a middle, whereas it is not in the inchoative counterpart.

Type II middles need to be distinguished from different types of reflexive constructions that occur in the relevant languages. First and foremost, it needs to be established whether or not type II middles can be distinguished from reflexive-marked passives, whose argument configuration is identical to that in middles. will be devoted to that issue. In this section, we will review the differences between middles and other types of reflexive constructions in languages with type II middles.

4.1 Impersonals and transitivity

The first distinction we need to make is between type II middles and impersonals. Languages like French and Italian have impersonal constructions that superficially look like impersonal middles in languages like Dutch and German. Some examples are given in (56):

(56)	Si lavora sempre troppo. Italian	
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	REFL work always too-much	
a.	'One always works too much.'	(Cinque 1988 : 522)
(56)	Oggi, a Beirut, si è sparato tutta la mattina. Italian	
	today, in Beirut, REFL is shot whole the morning	
	'Today, in Beirut, one shot the whole morning.'	(Cinque 1988 : 542)
b.	Il se chante/dort/travaille souvent ici. French	
	it REFL sings/sleep/works often here	
	'People often sing/sleep/work here.'	(Zubizarreta 1987 : 153)
c.		

Such impersonal sentences are not middles. They freely occur with specific time reference, in which case they have a (generic) third person plural subject interpretation. Also, as opposed to Dutch and German impersonal middles, they can never occur with the adverbial modification typical for middles. On this basis alone, we conclude that impersonals in Italian and French should not be treated as type II middles. We therefore also conclude that French and Italian middles cannot be derived from intransitive verbs. This property they share with English middles, but not German and Dutch ones.

4.2 Middles and intrinsic reflexives

Some intrinsically reflexive verbs look very much like middles, but they have a special semantics of their own that cannot be derived from the combination of the verb's semantics and the semantics of a middle. Consider, for instance, the meaning of the French examples in (57) (from [Zribi-Hertz 1982](#) : 348):

(57)	a.	Cette couleur se voit.
		this colour REFL sees
		'This colour is gaudy.'
b.		Cela s'entend bien.
		this REFL hears well
		'Of course.'

It is more than likely that these inherent reflexives are in fact lexicalized true middles.⁵

5 Type II middles and reflexive-marked passives

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5.1 The same or different?

Type II middles in many languages are formally indistinguishable from a sentence type most

easily described as ‘reflexive-marked passive’. Reflexive-marked passives use the formal markers of reflexives in a sentence with an argument configuration similar to a passive. An example from Italian (from [Cinque 1988](#) : 554) is given in (58):

(58)	Qui, gli spaghetti si mangiano spesso.
	here the spaghetti REFL eat often
	‘Here spaghetti is often eaten.’

Such reflexive-marked passives allow episodic use, unlike the strictly stative type I middles. Specific time reference in such examples results in a passive reading, including a syntactically active agent (compare). In some languages, reflexive-marked passives can even take the equivalent of a passive *by*-phrase, sometimes depending on style or register of the utterance (as an Italian: see [Cinque 1988](#) : 529).

These reflexive-marked passives raise some interesting questions with respect to the properties and analysis of middles. The first one is, of course, whether we can distinguish between type II middles and reflexive-marked passives. Should the middle be separated from the reflexive-marked passive, or be treated as a special instance of the latter? If we do want to distinguish the two, then what is the nature of the distinction between middles and reflexive-marked passives in languages that have them?

In distinguishing between type II middles and reflexive-marked passives we will first take the narrow view of middles as ‘the equivalent of a type I middle’. The question we want to answer then is the following: in a language with type II middles, are there systematic differences between the equivalent of a type I middle and reflexive-marked passives?

The literature seems to be divided on this issue. On the one hand, emphasis is put on the similarities between middles and reflexive-marked passives, leading to a view that there is no true distinction between the two (see, for instance, [Authier and Reed 1996](#)). On this view, there is no special category of middle sentences, because any middle sentence will have an episodic, and therefore by the narrow criterion just mentioned non-middle, counterpart. These counterparts may even take *by*-phrases in some languages (French, Greek), apparently voiding the dichotomy between passives and middles in these languages.

In contrast, there are those authors who concentrate on the differences between ‘true’ middles and reflexive-marked passives, and conclude that, even though episodic counterparts exist, middles have special behavior of their own that needs an explanation ([Cinque 1988](#) , among others).

In this section, we will provide an overview of reflexive-marked passives in languages with type II middles to see how and whether the properties of reflexive-marked passives (in their passive reading) have been found in the literature to be distinguishable from those of sentences with the middle interpretation found in type I middles. Relevant issues to be addressed are modality and aspect, the presence of the external theta-role, and restrictions on the formation of either construction.

5.2 Genericity and modality

The first difference between reflexive-marked passives and type I middles is that these passives lack the obligatory modal character of type I middles and the obligatory generic character that seems to come with it. Also, they allow a wider range of modal shades than the potential reading that is always a property of type I middles.

5.2.1 Modality

Reflexive-marked passives either have no intrinsic modality to their semantics, or they express prescriptive modality (Fagan 1992). In the latter case, they focus on how something is always done and therefore should be done, and not, like a type I middle, on the fact that anybody could do it in some way. This semantic property is illustrated by the French examples in (59):

(59)	a.	Les maximanteaux, ça se porte sur une minijupe.	
		the maxi-coats, that REFL wears on a mini skirt	
		'Maxi-coats, they're worn over a mini skirt.'	(Ruwet 1976 : 89)
	b.	Le bébé se change toutes les trois heures.	
		the baby REFL changes every three hours	
		'The baby is changed every three hours.' (instruction to babysitter)	(Zribi-Hertz 1982 : 349)
	c.	Les cuisses de grenouilles se mangent avec les doigts.	
		the legs of frogs REFL eat with the fingers	
		'Frog's legs are eaten with one's fingers.'	(Boons et al. 1976 : 131)

5.2.2 Events and event quantification

Earlier (see) we have seen that the stative aspectual properties of type I middles are a direct consequence of the type of modality expressed in them. It is therefore only to be expected that the different modal properties of reflexive-marked passives lead to different aspectual properties as well. In particular, the potential absence of modal semantics in such passives corresponds to the absence of the obligatorily stative properties of type I middles:

(60)	a.	La question se traite actuellement à l'Assemblée.	
		the issue REFL discusses now in Parliament	
		'The issue is being discussed now in the National Assembly.'	(Zribi-Hertz 1982 : 349)
	b.	La question est en train de se discuter dans la salle du conseiller.	
		the issue is in process of REFL discuss in the hall of Council	
		'The issue is being discussed at the council hall.'	(Zubizarreta 1987 : 150)
	c.	Les vivres se distribueront tout à l'heure au premier étage.	
		the victuals REFL distributes all-at-the-hour on-the first floor	
		'The food will be distributed in a while on the first floor.'	(Zribi-Hertz 1982 : 349)

Because of the eventivity of reflexive-marked passives, generic quantification over the event will lead to something like a middle reading, but with the modal distinction observed at the beginning of . A true middle expresses potentiality; the generically used reflexive-marked passive expresses how things are always done, which leads to prescriptive modality.

There are two different views on the nature of the stativity found in middles across languages, which seem to correspond to whether the authors are dealing with type I or type II middles. As described

earlier, type I middles are generally treated as true statives, which [Fagan \(1992\)](#) argues should be treated as quantifying over potential subjects (not events). The opposite is argued for by [Condoravdi \(1989\)](#), whose view on stativity in (type II) middles involves quantification over events.

Unfortunately, these authors do not generally narrow down their sample of middles sentences to those that, if such a distinction were warranted, would be likely to be true middles instead of reflexive-marked passives. A notable exception is [Cinque's \(1988\)](#) article on Italian reflexives, in which it is argued that Italian middles are true statives in exactly those cases where they are true middles, and not otherwise. [Cinque \(1988 : 563\)](#) provides the following example from Italian:

	*?Il sindaco ha il vantaggio di essersi già corrotto ieri.	
(61)	the mayor has the advantage of already REFL being bribed yesterday	

The ungrammaticality of specific time reference in this middle indicates its stative character.

A similar view is found in [Fagan 1992](#). Fagan argues that [Condoravdi's \(1989\)](#) argument concerning type II middles is based on what Fagan refers to as non-core cases of middles – in other words, reflexive-marked passives.

5.2.3 Adverbial modification

It is quite clear that there is a correlation between the notion that type II middles may just be passives and the absence in such passives/middles of the obligatory adverbial modification found in type I middles. The ambiguity of the following French example shows that such modification may not even have a middle reading when present:

	Le grec se traduit facilement.	
(62)	the Greek REFL translates easily	(Fellbaum and Zribi-Hertz 1989 : 23)

This example can either mean ‘Greek has the property of being easy to translate’ (property reading typical for ‘true’ middles) or ‘Greek is translated with ease’ (passive-like reading). A minimal pair like this suggests that there may be a true structural and/or semantic distinction between reflexive-marked passives and true (type II) middles. The presence of a truly passive reading distinct from a middle reading is further corroborated by the fact that the passive can have an episodic counterpart:

	Les examinateurs constatent que le grec se traduit ce jour-là plus facilement que l'araméen.	
(63)	the examiners note that the Greek REFL translates that day more easily than the Aramaic	
	‘The examiners note that on that day Greek is translated more easily than Aramaic.’	(Fellbaum and Zribi-Hertz 1989 : 23)

There is no evidence for an episodic counterpart of the true middle reading.

The hypothesis that the true middle should be distinguished from a reflexive-marked passive in languages with type II middles is further supported by cases like those in (64):

(64)	Ce genre de livres s'achète surtout dans les gares.	
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	this type of books REFL buys especially in the stations	
a.	'This type of book is bought especially in train stations.'	(Hirschbühler 1988 : 105)
(64)	*Ce roman s'achète bien.	
	this novel REFL buys well	(Hirschbühler 1988 : 105)
b.	Ce client se reçoit au petit salon.	
	this client REFL receives in-the small parlour	
	'This client is received in the small parlour.'	(Zribi-Hertz 1982 : 349)
b'.	?Les petits colis se reçoivent facilement.	
	the small packages REFL receive easily	(Fagan 1992 : 98)

It turns out that reflexive-marked passives do not always have correlates that can be modified by the typical middle modifiers 'easily' or 'well'.

5.2.4 Type II middles and capability

Both type I and type II middles express potentiality, i.e., any subject's ability to perform the action. However, even within this middle reading there is an important distinction. Whereas type I middles usually require a modifier of this potentiality, type II middles may express a middle reading without modification. The middle reading without modification is illustrated in (65) (cited in [Fagan 1992](#) : 184, from [Zribi-Hertz 1982](#) : 348). Note that the English equivalents in (66) are ungrammatical:

(65)	a.	Ce papier se lave.
		this paper REFL washes
		'This paper is washable.'
b.		Cette racine se mange.
		this root REFL eats
		'This root is edible.'
c.		Cette solution se discute.
		that solution REFL debates
		'That solution is debatable.'

(66)	a.	*This paper washes.
	b.	*This root eats/consumes.
	c.	*That solution debates.

Other cases of what Fagan refers to as non-core middles are also of this type, lacking the type of modification that is obligatorily found in type I middles (see the examples in (59) above).

If such sentences are treated as true middles, their existence should be interpreted as an argument in favor of the idea that there is no real distinction between type II middles in their middle and passive readings. If the truly middle reading were a different animal, as suggested by the evidence from the type of genericity involved () and the interpretation of adverbs (), we would expect the same degree of obligatoriness of the adverbial modification in the true middle reading as in type I middles.

This suggests that examples like (65) should in fact not be treated as middles in the narrow (type I) sense. The difference between their reading and the one found in type I middles is clear from the following two general paraphrases:

(67)	Type II middle without adverbial modification (X se-V):
	‘X has a property such that it is possible for X to be V’ed.’
	(e.g., <i>ce papier se lave</i> (65a) ‘this paper has a property such that it is possible for it to be washed’)
	a.
Type I middle (X V Adv):	
‘X has a property such that it is possible for anyone somehow to V X.’	
(e.g., <i>this paper washes easily</i> ‘this paper has a property such that it is possible for anyone to wash it with ease’)	
b.	

The paraphrase of the type II middles without modification actually involves a passive, and although it is of course dangerous to base arguments on paraphrases, this suggests that they might be variants of the reflexive-marked passive, not the true middle. It follows that in order to maintain a real semantic and/or syntactic distinction between a reflexive-marked passive and the true middle in a language with type II middles, we need to classify the rather middle-like reading of examples like (65) as being really passive. This means it must be shown that it patterns with the passive and not with true middles with respect to the type of genericity involved, as well as with respect to the other criteria that will be discussed in the remainder of this section: the status of the external argument and restrictions on the formation of these constructions.

5.3 Properties of the understood subject

As has been shown above, there is a difference between the status of the external theta-role of the underlying verb in passives and type I middles (see also for discussion of this difference). In order to establish the status of the middle reading of type II middles, the status of the original verb's external theta-role needs to be demonstrated.

5.3.1 By-phrases

Some languages with type II middles allow reflexive-marked passives that contain the equivalent of English *by*-phrases. (68a) is an example from older/non-standard French (from [Fagan 1992](#) : 184, [Zribi-Hertz 1982](#) : 348); (68b) is a Greek example (from [Lekakou 2002](#) : 28):

(68)	a.	Les permissions de copier s'accordent par le directeur.
		the permits to copy REFL grant by the director
		‘Permission to copy is grant by the director.’
	b.	Afto to vivlio diavazete efxarista akomi ki apo megalus.

(68)	this the book read-PASS-3sg with pleasure even and by grown-ups
	'This book is a pleasure to read even for grown-ups.'

Such reflexive-marked passives either are episodic or have an episodic counterpart, as opposed to true middles, which can never be used episodically. This can be shown by forcing a true middle interpretation on a reflexive-marked passive, in which case adding a *by*-phrase makes the example ungrammatical:⁶

(69)	a. *Ce genre de surface se nettoie bien par les femmes de ménage.
	this type of surface REFL cleans well by the housewives
	'This type of surface is easy to clean for housewives.'
	b. *Les livres de poche se vendent bien par les petits marchands.
	the books of pocket REFL sell well by the small merchants
	'Small paperback books are easy to sell for small merchants.'

The occurrence of a *by*-phrase in some variants of type II middles is an indication of the distinction that can be made in all languages with such middles, regardless of the properties of the reflexive-marked passives in them: in the reflexive-marked passive, the underlying verb's external theta-role is syntactically active in a way that it is not in a type I middle. There are some further observable consequences of this difference.

5.3.2 Controlling a purpose clause

The understood agent of a reflexive-marked passive may control the PRO subject of a purpose clause, whereas the understood agent of a type I middle may not. An Italian example (from [Cinque 1988](#) : 562) is provided in (70):

(70)	Quell'uomo politico si può corrompere (facilmente) per dimostrare la propria influenza.
	that politician REFL can bribe (easily) to show one's influence
	'It is easy to bribe that politician to show one's influence.'

5.3.3 Secondary predicates

Similarly, a reflexive-marked passive may control the subject of a small clause, but not in its true middle reading. This is shown for Italian in (71) (from [Cinque 1988](#) : 562):⁷

(71)	a. Il museo del campo si può visitare facilmente anche nudi.
	the camping museum REFL can visit easily even naked
	'The camping museum can easily be visited even when nude.'
	Il museo del campo ha il vantaggio di potersi visitare facilmente (*anche nudi).
	the camping museum has the advantage of REFL visiting easily (even

(71)	naked)
	b. 'The camping museum is easy to visit (even when nude).'

5.4 Restrictions

Above, we have seen that the formation of type I middles shows lexical and other restrictions that are not found in the formation of passives in the same language. (This issue is discussed in more detail in .) In order to establish whether type II middles should be treated as variants of reflexive-marked passives or not, it is worth taking a look at the existence of restrictions on the formation of these constructions.

5.4.1 Non-finite contexts

Reflexive-marked passives are claimed not to occur in infinitival contexts. Nevertheless, some exceptions to this generalization have been identified in the literature. This might also be an indication of distinctions in the behavior of true middles and (other) reflexive-marked passives.

The exception concerns control in Italian. Only middle-like reflexive-marked passives are to some extent acceptable in this context, as opposed to obvious passive reflexives ([Cinque 1988](#) : 560):

(72)	(?)Questo vestito ha il vantaggio di lavarsi più facilmente di altri.
	this suit has the advantage of washing-REFL more easily than others
a.	'This suit has the advantage of being more easy to wash than others.'
	(?)Questo tavolino ha il vantaggio di trasportarsi con estrema facilità.
	this table has the advantage of transporting-REFL extremely easily
b.	'This table has the advantage of being extremely easy to transport.'
	*Neanche il nemico ha la proprietà di uccidersi senza rimorsi.
	not even the enemy has the property of killing-REFL without remorse
	*Carlo ha il vantaggio di odiarsi facilmente.
	d. Carlo has the advantage of hating-REFL easily

This seems to distinguish exactly between what we have been referring to as true middles and reflexive-marked passives.⁸

However, there is a second class of cases where type II middles occur in infinitival contexts, but which are unlikely to have the status of true middles. This class of examples concerns reflexive-marked passives in Spanish and Italian ECM constructions involving verbs of perception, as in (73) ((73a) from [Cinque 1988](#) : 561; (73b) from [Suñer 1975](#)). The Spanish example especially does not seem to have generic time reference, which means a true middle reading is excluded. It seems, then, that occurrence in an infinitival context does not discriminate between a true middle reading and a passive reading of the reflexive-marked

passives:

	Non ho mai visto spendersi così tanti soldi come quest'anno.	Italian
a.	I've never seen spend-REFL so much money as this year 'I've never seen so much money being spent as this year.'	
(73)	Al anunciársele a Juan el resultado le echaron chispas los ojos.	Spanish
b.	at-the announce-INF-REFL-him to John the result from-it threw sparks the eyes	
	'When one announced the result to John, his eyes sparkled.'	

5.4.2 Non-third person

It is sometimes claimed that type II middles may occur with third person grammatical subjects only. The question is whether this holds for such middles in their passive reading, the middle reading, or both. Also, if it should hold, the question is whether it is a grammatical restriction or something else, for example an anti-animacy condition on the subject.

In Italian, the restriction holds at least in the middle reading. The following example is provided by [Cinque \(1988 : 565\)](#):

(74)	*Io mi trasporto facilmente.
	I REFL transport easily
	'I'm easy to transport.'

It should be noted that this restriction does not hold for other uses of the reflexive element, such as with unaccusatives/inchoatives or inherent reflexives.

In French, the restriction does not hold at a grammatical level, given examples like the following (from [Grimshaw 1982 : 146](#)):

(75)	Si tu étais une chemise, tu ne te vendrais pas pour trop cher.
	if you were a shirt you NEG REFL sell-SUBJ NEG for too expensive
	'If you were a shirt, you would not be sold for much.'

However, it looks as though the restriction might hold at the level of animacy: a middle like this may be awkward to derive for a first or second person subject because, everything else being equal, this imposes animacy on the subject. If this animacy effect of a first or second person pronoun is explicitly excluded, as in the metaphorical example in (75), the middle is grammatical.⁹

The Italian example is provided in an explicitly middle reading; the French one looks more like a reflexive-marked passive. As a result, the examples illustrating compatibility with first and second person subjects provide no additional insight into the properties of the middle reading of type II middles.

5.5 Conclusion

So should we conclude that there is only one reflexive middle/passive construction in languages with the ‘type II middle’, or that there is a real distinction between a reflexive-marked passive and a true middle with reflexive marking in the relevant languages? Probably we want to say both, but at different levels: the construction does seem to have two truly distinct readings, which impose their own restrictions on the environments they occur in. However, almost all the distinctions discussed were of this semantic nature, so there is very little evidence on which to base a syntactic distinction between the two constructions. On the basis of the evidence presented in the literature, therefore, we conclude that type II middles are true middles that are syntactically parasitic on an independently occurring reflexive-marked passive construction. Note that type I middles are parasitic on an independently occurring syntactic construction as well, namely on simple active sentences. In fact, we do not know of any language that has a special morphological or syntactic form for middles only. It would seem to make sense, then, to define the middle as a semantic category which can be expressed by a variety of syntactic constructions cross-linguistically, as argued by [Condoravdi \(1989\)](#) and [Lekakou \(2002\)](#).¹⁰

6 Restrictions on middle formation

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Not every verb can undergo middle formation. The proper characterization of the verbs that can undergo the process – i.e., the question of what exactly makes these different from those that are not eligible for middle formation – is notoriously difficult. A number of proposals have been made, which we will discuss in this section. Many of them manage to adequately capture a large number of verbs that can undergo middle formation with a single generalization. Not surprisingly, these characterizations often overlap to a significant extent. We will see that none of these generalizations is without its problems, however, and it seems fair to say that the jury is still out on the issue.

In the discussion that follows, it is important to keep the distinction between type I and type II middles in mind. Type I middles seem to impose more restrictions on the type of verb that can occur in them than type II middles, and the discussion has mainly focused on the former in this respect. Where appropriate, we will make a comparison with type II middles.

Roughly, one can focus on three things when trying to establish the proper restrictions on middle formation: it may be that the verb itself must have a particular property for middle formation to be possible; it may be that the logical object/grammatical subject must have a particular property; or it may be that the logical subject must have a particular property. Of course, properties of these three elements are often linked, so, as noted, the proposed restrictions overlap to a significant extent. Also, combinations of demands on properties of these three elements are possible. Nevertheless, to get a clear classification of the various approaches it is useful to distinguish these factors.

6.1 Properties of the verb

[Fagan \(1992\)](#) proposes that aspectual properties of the verb are crucial in determining whether or not it can undergo MF (see also [Roberts 1987](#)). Fagan uses [Vendler's \(1967b\)](#) classification of verbs into four aspectual types:¹¹

(76)

	activities: express an ongoing action with no inherent end-point (examples are <i>run</i> ,
a.	<i>smoke a pipe, play the piano, push something</i>);

(76)	b.	accomplishments: express an event with an internal time structure and an end-point (examples are <i>paint a picture, make a chair, build a house</i>);
	c.	achievements: express instantaneous events (examples are <i>recognize something, reach the summit, cross the border</i>);
	d.	states: do not express an event or activity (examples are <i>have something, love somebody, know something</i>).

According to Fagan, the crucial restriction on middle formation in English and German is the following:

(77)	Aspectual condition:	
	Only (transitive) activities and accomplishments undergo middle formation.	

Consider how examples of each aspectual class fare with respect to middle formation. The contrast in grammaticality between the examples in (78) and (79) on the one hand and those in (80) and (81) on the other lends support to Fagan's generalization in (77):

(78)	a.	This pipe smokes nicely.	
	b.	Die Butter schmiert sich wie von selbst.	German
		this butter butters REFL as-though by itself	
	c.	A Steinway piano plays easily.	
	d.	Diese Gitarre spielt sich leicht.	German
		This giutar plays REFL easily	

(79)	a.	Bob Ross-style pictures paint easily.	
	b.	Dieses Buch liest sich leichter als das andere.	German
		this book reads REFL more easily than the other	
	c.	Sturdy clear plastic boxes . . . assemble in seconds.	(Fagan 1992 : 68)

(80)	a.	*A red-winged blackbird recognizes easily.	
	b.	*Ein Spatz erkennt sich leicht.	German
		a sparrow recognizes REFL easily	
	c.	*Such high summits do not reach easily.	
	d.	*Hohe Gipfel erreichen sich nicht leicht.	German
		high summits reach REFL not easily	

(81)	a.	*That answer knows easily.	
		*Diese Antwort weiß sich leicht.	German

(81)	b.	this answer knows REFL easily	
	c.	*Such a nice person loves only too easily.	
		*Ein solcher netter Mensch liebt sich leicht.	German
	d.	a such nice person loves REFL easily	

However, there are also some more recalcitrant data for (77), as also discussed by Fagan. A famous contrast in middle formation is that between *sell* and *buy*. The former but not the latter can undergo the process (see (82)). Nevertheless, *buy something* is an accomplishment no less than *sell something*, and hence it should be eligible for middle formation according to (77):

(82)	a.	The new Saramago sells like water in a desert.
	b.	*The new Saramago buys with great difficulty, the distribution is bad.

To account for this contrast, Fagan proposes an additional constraint, which must hold of the grammatical subject of the construction (see also the next subsection). The condition is that the entity expressed by this subject (i.e., the logical object) must have properties such that it can be held responsible for the action that the predicate expresses (see also Van [Oosten 1977, 1986](#)):¹²

(83)	Responsibility condition:	
	The grammatical subject of a middle (if present) must have properties such that it can be understood to be responsible for the action expressed by the predicate.	

Consider how this accounts for the *sell–buy* contrast. A book can have properties which make it responsible for being sold easily: it can be well written, or have an attractive cover, or contain a lot of sex and violence, and so on. In contrast, although it can be difficult to buy a book because it is hard to find, or because you do not have enough money, those are not properties of the book itself. It is very hard, if not impossible, to imagine a book having intrinsic properties which makes buying it easy or difficult. Hence the unacceptability of (82b). Other verbs that pass the aspectual condition in (79), but nevertheless fail to undergo middle formation because of (83), include *discuss* and *invite*.

Some other potential counterexamples to (79), which nevertheless do comply with (83), include achievement verbs, as illustrated in (84) and (85):

(84)	a.	The glass broke.
	b.	The children broke the glass.
	c.	Glass breaks easily.

(85)	a.	The explosives detonated.
	b.	The engineer detonated the explosives.
	c.	High explosives detonate easily.

The problem here is that most of these verbs take part in the causative–inchoative alternation (see the (a) and (b) examples in (84–85)). This makes it unclear whether the (c) examples in (84–85) just

involve generic instantiations of the inchoative alternant in the (a) examples (which we have assumed to not involve middle formation: see), or whether they can also be genuine middles based on the transitive causative alternant in the (b) examples. (The former analysis is possible for the relevant examples in any case, so the question is whether they are ambiguous between a middle and a generic inchoative reading or only have the latter reading.) Note that, if the (c) examples are middles, they can be explained by an appeal to (83): glass certainly has properties which make it easy to break it, and explosives can be made in such a way that it is easy to detonate them.

Semantically, the (c) examples do appear to be ambiguous between a reading in which an external causer is implied and a reading in which this is not the case (compare *glass breaks easily, it is so brittle* with *glass breaks easily, you can do it with your bare hands*). This might indicate that middle formation is applicable to the (b) examples, which, given that they are achievements, would run counter to (77). Nevertheless, this should be established on the basis of more solid syntactic evidence for the supposed ambiguity of the (c) examples. For English, such evidence is hard to come by, although in we discussed the interpretation of *easily*, data that [Fellbaum \(1986\)](#) advances as evidence for the distinction.

For Dutch, it is a bit easier to distinguish the inchoative reading of examples like (84c) and (85c) from their potential middle reading. Dutch shows solid evidence for a syntactic distinction between unergative and unaccusative verbs (see, for instance, [Hoekstra 1984b](#) ; [Hoekstra and Mulder 1990](#) ; [Ackema 1999](#)). As is apparently the case in every language showing the distinction, inchoatives are unaccusatives syntactically (cf. [Hale and Keyser 1993a](#) ; [Levin and Rappaport Hovav 1995](#) ; [Reinhart 2000b](#)). Middle verbs behave like unergatives in Dutch, however ([Ackema and Schoorlemmer 1995](#) ; see also).

One test distinguishing unergatives from unaccusatives in Dutch is auxiliary selection in the perfect tense: unergatives take *hebben* 'have', unaccusatives *zijn* 'be'. The perfect tense of an example like (86a) can be formed with either. Use of *hebben* goes together with a middle reading, in which an implied logical subject argument is present (see (86b)). Use of *zijn* goes together with an inchoative reading, with no implied second argument present (see (86c)):

	Vazen breken gemakkelijk.
a.	vases break easily
(86)	Dit soort stenen heeft/*is altijd gemakkelijk gebroken. (said by one stonemason to another)
	this sort stones has/is always easily broken
	'Stones of this type always have had properties such that it is easy for people to break them.'
b.	Dit soort glazen ??heeft/is altijd nogal gauw gebroken.
	this sort glasses has/is always rather quickly broken
	'Glasses of this type have always had properties such that they break rather quickly.'
c.	

It turns out that examples like (84c) and (85c) in this language can have either an unergative or an unaccusative structure, and that this corresponds to the two different readings, with an external cause implied in the former but not in the latter case.

Of course, as already noted, there is language variation with respect to which verbs can undergo middle formation, so it might be that Dutch and English differ with respect to the aspectual constraint in (77). In this respect, Fagan notes that at least in French (with type II middles in our terms) middle formation is much less restricted, compared to English. Even some apparent state verbs are possible targets for the process, as the example in (87) shows:

(87)

(87)	La Tour Eiffel se voit facilement de ma fenêtre.
	the Tower Eiffel REFL sees easily from my window
	‘The Eiffel Tower can easily be seen from my window.’

The question is whether we can link such language variation to other differences between the languages. Is there any reason why English should comply with the aspectual restriction in (77) while French apparently should not?

Hulk and Cornips (1998, 2000) argue that the presence of a reflexive marker in French but not English middles is responsible for the different aspectual restrictions on middle formation in both languages. They argue that the relevant aspectual restriction really is the same for all languages, but that the reflexive can help in complying with this restriction. Their aspectual treatment is slightly different from Fagan's. In particular, they argue that only so-called incremental verbs – i.e., verbs whose object delimits or ‘measures out’ the event referred to by the predicate (cf. Tenny 1987) – are eligible for middle formation:

(88)	Delimited event condition:
	Only verbs with a logical object argument that delimits the event expressed by the predicate can undergo middle formation.

An object delimits and measures out an event when the progress of the event can be measured by looking at how far the object is ‘affected’ by it (see also the next subsection on the general notion of affectedness). For example, the event described by *mow the lawn* is measured out by properties of the object: we know that the mowing of the lawn is halfway when half the lawn is affected by it, and that the end-point of mowing the lawn is when the entire lawn is affected. Compare this with *listen to music*: this is an event that is not measured out by properties of the object. The music is not affected by listening to it, so we cannot say that we have ever done half or whole of listening to music, in contrast to having done half or whole of mowing the lawn.¹³ This contrast comes close to the distinction between activities and accomplishments in Vendler's classification in (76). This means Hulk and Cornips's restriction to incremental verbs would seem to be somewhat overly restrictive, in that it is difficult to account for the cases of true activity verbs that Fagan cites as undergoing middle formation in English. Consider *this piano plays easily*: *play a piano* is an activity, not a delimited event measured out by how it affects the piano. (Also, as we will see in the next subsection, in Dutch and German it is possible to form middles of some verbs that do not have a direct object at all, which consequently cannot fall under this classification.)

Be that as it may, the point Hulk and Cornips want to make is that the reflexive element can turn a non-delimited event into a delimited one. They argue that the reflexive “has the effect of presenting the situation expressed by the predicate as involving a transition” (p. 212). This has the effect that the predicate now complies with the above-mentioned criterion of being delimited, so that it is eligible for middle formation. Hulk and Cornips present minimal pairs from Standard Dutch and a dialect spoken in the southern province of Limburg, Heerlen Dutch. In contrast to Standard Dutch (and English), Heerlen Dutch uses the reflexive element *zich* in middles. It turns out that Heerlen Dutch, like French, allows middles of some verbs which in standard Dutch do not undergo the process. Hence, this might be attributed, as it is by Hulk and Cornips, to the aspectual effect the reflexive is supposed to have on the predicate. The relevant examples are given in (89–90):

(89)		Standard Dutch
	*Frans verwerft gemakkelijk.	
	a. French acquires easily	

(89)	b.	*French acquires easily.	
		Frans verwerft zich gemakkelijk.	Heerlen Dutch
	c.	French acquires REFL easily	
		Le français s'acquiert facilement.	French
d.	the French REFL-acquires easily		

(90)		*Dat herkent gemakkelijk.	Standard Dutch
	a.	that recognizes easily	
	b.	*That recognizes easily.	
		Dat herkent zich gemakkelijk.	Heerlen Dutch
	c.	that recognizes REFL easily	
		A quoi ça se reconnaît un flic belge?	French
		at what that REFL recognizes a cop belgian	
	d.	'How do you recognize a Belgian cop?'	

The reflexive cannot turn just any predicate into a delimited one, however. Apparently, for some events it is impossible altogether to construe them as a transition, and thereby as delimited. Such predicates do not undergo middle formation even in languages in which the construction contains a reflexive. Hence, as Hulk and Cornips note, it cannot be said that the 'affectedness' condition simply does not apply to languages like French and Heerlen Dutch (cf. [Zubizarreta 1987](#) ; [Cinque 1988](#)). There still are aspectual restrictions on middle formation in French (see (91)) and Heerlen Dutch (see (92)) too (examples from [Hulk and Cornips 1998](#)):

(91)		*Les pommes, ça s'aime beaucoup.
		the apples, that REFL likes a lot
	a.	'Apples are very nice.'
		*Ça se hait partout.
		that REFL hates everywhere
	b.	'People hate that everywhere.'

(92)		*Die antwoorden weten zich gemakkelijk.
	a.	those answers know REFL easily
		*Zo'n dingen haten zich vreselijk.
	b.	such things hate REFL terribly

Although the contrast between standard Dutch and Heerlen Dutch is very suggestive, the proposal that the presence of a reflexive element affects the aspectual characteristics of a

predicate in such a way that it becomes possible to make a middle from it is not without its problems either. One problem that presents itself is constituted by German. Like Heerlen Dutch, German uses reflexive *sich* in middles. Nevertheless, according to [Fagan \(1992\)](#), in German more or less the same aspectual restrictions on middle formation hold as those operative in English, rather than the more liberal ones of French. Compare (93) (from [Wagner 1977](#) and [Fagan 1992](#)) with (91) and (92):

(93)		*Diese Krankheit erkennt sich nicht leicht.
	a.	this illness recognizes REFL not easily
		*Deine Unsicherheit bemerkt sich unschwer.
	b.	your uncertainty notices REFL easily
		*Der Kirchturm sieht sich leicht trotz des Nebels. ¹⁴
	c.	the church tower sees REFL easily despite the mist

Conversely, though less clearly for reasons we will see directly, it might be that there are languages that do not use a reflexive in middles but which are nevertheless more liberal in their choice of eligible verbs than English, Dutch, and German. In particular, languages that lack a special marker or morphology not only in middles (like English, etc.), but also in passives seem to be more like French/Heerlen Dutch in this respect. For instance, in a number of (heavily deflected) creole languages like Negerhollands (with Dutch-based lexicon), examples like the following are possible (see [Bruyn and Veenstra 1993](#)):

(94)	Am sal graf mi am.	Negerhollands
	he will bury with him	
	'He will be buried with him.'	(Bruyn and Veenstra 1993 : 65)

Of course, as in languages with reflexive-marked passives (), the question here is whether such sentences are truly ambiguous between a passive and a middle.¹⁵ At least in the case of Sranan (another such creole), it appears that sentences of this types are ambiguous and do have both a middle and a passive reading (Lilian Adamson, p.c.).¹⁶

Another problem for restricting middle formation to predicates with a 'delimiter' object, at least if this were to be regarded as a universal constraint, is the existence of languages with impersonal middles, that is, middles formed from verbs that do not take an object argument (). This will be discussed in more detail in the next subsection.

6.2 Properties of the grammatical subject/logical object

The 'classical' restriction concerning the properties the grammatical subject/logical object must have in order for a middle to be well-formed is the following:

(95)	Affectedness condition:
	The logical object/grammatical subject in a middle must be affected by the action expressed by the middle verb.

We have already seen a particular implementation of this condition in the previous subsection, where we discussed proposed aspectual restrictions on middle formation. Recall that [Hulk and Cornips \(1998\)](#) argue that (95) is really a condition on the aspect a VP must have in order for middle

formation to be possible. (In particular, the VP must express an event that is delimited and 'measured out' by the object.) However, the condition has also been put forward in more general terms: only when the properties of the thing denoted by the logical object argument are affected by the action denoted by the verb is middle formation supposed to be possible.

[Jackendoff \(1990b\)](#) supplies the following test to distinguish affected objects ('Patients' in his terms) from non-affected ones. Take a transitive sentence of the type XP V YP. If this fits into the frame 'what happened to YP was XP V YP' or into the frame 'what XP did to YP was (XP) V YP', then YP is a Patient. So the difference in acceptability between (96) and (97) indicates that the object arguments of verbs like *invade* and *destroy* are Patients, whereas the object arguments of verbs like *know* and *recognize* are not:

(96)	a.	What happened to Afghanistan was both the USSR and the US invaded it.
	b.	What the Russians and the Americans did to Afghanistan was destroy it.

(97)	a.	#What happened to the answer was everybody knew it.
	b.	#What the tourists did to the Eiffel Tower was recognize it.

The condition in (95) can hence be restated more concisely as follows:

(98)	Affectedness condition:
	A middle verb must have a Patient argument.

A condition like (98) was originally proposed to account for a difference between verbal passives and passive nominals. Whereas virtually any object can be promoted to subject in the former, the latter is restricted by an affectedness condition on this argument ([Anderson 1977b](#)):

(99)	a.	Afghanistan was invaded by the USSR and by the US.
	b.	Afghanistan was destroyed by the USSR and by the US.
	c.	The answers to most of the exam questions were known in advance.
	d.	The spy was not recognized even by his mother.

(100)	a.	Afghanistan's invasion by the US
	b.	Afghanistan's destruction by the US
	c.	*the answer's knowledge by the students
	d.	*the spy's recognition by the secret service

Now, as noted by [Jaeggli \(1986a\)](#) and others, a similar restriction appears to apply to middle formation. For instance, the contrast in (100) can be replicated with (type I) middles:

(101)	
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(101)	a.	Defenseless countries invade easily (said by one aggressor to another).
	b.	Defenseless cities destroy easily (said by one bomber to another).
	c.	*Simple answers know easily (said by one student to another).
	d.	*Security staff recognizes easily (said by one thief to another).

Given that this condition is a more general version of the one in (88), we have also already encountered some potentially problematic data, even if we leave out of consideration that languages with type II middles are more flexible in how to comply with it (recall the French–English contrast). In fact, it would seem that, in its general form in (98), it is relatively easy to think of counter-examples even in languages like English. Consider, for example, the following examples (see also [Hale and Keyser 1986](#) ; [Fagan 1988](#)):

(102)	a.	Greek does not translate easily.	
	b.	Zulke stukken zingen lekker.	Dutch
		such pieces sing nicely	
	c.	Das Buch liest sich leicht.	German
the book reads REFL easily			

Neither of these cases complies with the affectedness condition: you cannot say ‘what he did to Greek was translate it’ or ‘what happened to the piece was the choir sang it.’

As already hinted at, another problem for the affectedness condition on middles, at least as a universal condition, is formed by impersonal middles in Dutch and German. Consider the following examples:

(103)	a.	Het werkt lekker met een muziekje op.	Dutch
		it works nicely with a music-DIM on	
		‘It is nice to work with some music on.’	
	b.	Het loopt prettig op deze schoenen.	Dutch
		it walks comfortable on these shoes	
		‘These are comfortable shoes to walk in.’	

(104)	a.	Es lebt sich gut als Sekretärin in Bonn.	German
		it lives REFL well as secretary in Bonn	(Brinker 1969 : 9)
	b.	Über dumme Fehler schimpft sich es leicht	German
		about dumb mistakes grumbles REFL it easily	(Fagan 1992 : 44)

The pronoun in subject position in such cases is, of course, in no way affected by the action expressed by the verb. This expletive-like element, though it may function as grammatical

argument (see [Bennis 1986](#)), is not referential at all, let alone referring to some affected entity.

As already discussed in , Dutch has yet another variant of middle in which an unexpected entity appears in subject position, namely what seems to be an adjunct rather than an argument of the verb (cf. [Hoekstra and Roberts 1993a](#) ; [Ackema and Schoorlemmer 1994](#)). For example, next to (103b), (105) is also possible:

(105)	Deze schoenen lopen prettig.
	these shoes walk comfortably

Middles of this type, too, are productive. Some more examples are given in (106):

(106)	a.	Deze naalden breien lekker.
		these needles knit nicely
	b.	Deze stoel zit prima.
		this chair sits fine
	c.	De snelweg rijdt makkelijker dan de binnenstad.
		the highway drives easier than the inner city

The grammatical subjects here correspond to adjuncts in the active non-middle counterparts of these sentences (see (107)). Note that these are PP-adjuncts and that the preposition is not realized when the adjunct is promoted to subject under middle formation in (106):

(107)	a.	Ze breit altijd met deze naalden.
		she knits always with these needles
	b.	Ze zit altijd in dezelfde stoel.
		she sits always in the same chair
	c.	Ze rijdt liever op de snelweg dan in de binnenstad.
		she drives preferably on the highway than in the inner city

So it seems clear that the grammatical subjects in (106) are not Patient arguments of the verb (compare #*what happened to the needles was she knit with them*, #*what she did to the chair was sit in it*, etc.). Indeed, they do not appear to be arguments of the verb at all, given their apparent adjunct status in (107). Though they are genuine counter-examples to the affectedness condition, there is a snag here, however. It turns out that you cannot just promote any adjunct to subject in a Dutch middle. Compare (106) with (110), for example. It is possible to make impersonal middles from the active examples in (108), as illustrated in (109), but adjunct middle formation is not felicitous now:

(108)	a.	Ze breit altijd met een muziekje op.
		she knits always with a music-DIM on
		Ze zit altijd voor de tv.

(108)	b.	she sits always in-front-of the tv
		Ze rijdt altijd met grote haast.
	c.	she drives always with great hurry

(109)		Het breit lekker met een muziekje.
	a.	it knits nicely with a music-DIM
		Het zit het beste voor de tv.
	b.	it sits the best in-front-of the tv
		Het rijdt niet prettig met grote haast.
	c.	it drives not comfortably with great hurry

(110)		*Een muziekje breit lekker.
	a.	a music-DIM knits nicely
		*De tv zit het beste.
	b.	the tv sits the best
		*Grote haast rijdt niet prettig.
	c.	great hurry drives not comfortably

The question, then, is what the difference is between the subjects/logical adjuncts in (106) and those in (110). It might be that the difference is spurious, and that it is just less straightforward to think of a sensible interpretation for the missing preposition in (110) than it is in (106). This is more or less the line [Kerstens \(2000\)](#) takes. According to Kerstens, any adjunct can become subject in a middle. Hence, he would presumably argue that the examples in (110) really are fine, although they may be pragmatically odd. On the other hand, [Ackema and Schoorlemmer \(1994\)](#) argue that there is a syntactic difference between the sources of (106) and (110), residing in a different status of the PPs in (107) and (108). According to Ackema and Schoorlemmer, in the former case the PPs are not adjuncts at all, but rather arguments of the verb.

There are several tests to distinguish argumental PPs from adjunct PPs (see [Hornstein and Weinberg 1981](#) ; [Baker 1988a](#) ; [Neeleman 1997](#) ; among others). For example, according to Hornstein and Weinberg, preposition stranding in English is allowed only with argumental PPs, not with adjunct PPs. At least colloquial Dutch allows for P-stranding (though it is considered substandard by some speakers), and the same distinction seems to apply here. Compare, for example, (111) with (112):¹⁷

(111)		Welke naalden breide je mee?
	a.	which needles knitted you with
		Welke stoel zat je in?
	b.	which chair sat you in
		Welke weg reed je op?
	c.	which road drove you on

(112)		?*Welk muziekje breide je mee?
	a.	which music knitted you with
		?*Welke tv zat je voor?
	b.	which tv sat you in-front-of
		?*Hoeveel haast reed je mee?
	c.	how-much-hurry drove you with

Another test is whether or not the PP can be extracted from a weak island: arguments are extractable from such islands; true adjuncts are not (see [Chomsky 1986a](#) ; [Cinque 1990c](#) ; [Rizzi 1990b](#)). Let us see how the PPs in question behave when extracted from an indirect question (a *wh*-island). Although the contrast is not always very clear, in general there does seem to be a contrast, with the PPs splitting along the same lines again:

(113)		??Met welke naalden vroeg je wie er breide?
	a.	with which needles asked you who THERE knitted
		??In welke stoel vroeg je wie er zat?
	b.	in which chair asked you who THERE sat
		??Op welke weg vroeg je wie er reed?
	c.	on which road asked you who THERE drove

(114)		?*Met welke muziek vroeg je wie er breide?
	a.	with which music asked you who THERE knitted
		?*Voor welke tv vroeg je wie er zat?
	b.	in-front-of which tv asked you who THERE sat
		*Met hoeveel haast vroeg je wie er reed?
	c.	with how-much hurry asked you who THERE drove

If these tests, and the rather shaky judgments on examples like this, can be considered reliable enough, then this would indicate that the examples in (106) are derived from sources which have an argumental PP rather than a true adjunct. If so, Dutch does not have real adjunct middles. Rather, what seems to happen in ‘adjunct’ middle formation is that an argument that is normally expressed as a PP loses its P when promoted to subject in a middle. Barring a few exceptions, PPs do not make good subjects (see [Neeleman 1997](#) for discussion), so it seems what happens here is that the argument is stripped of its P specifically to make it an eligible subject.

The process by which a PP loses its P and is turned into a direct argument of the verb is reminiscent of so-called applicatives in some languages (e.g., Bantu languages like Kinyarwanda and Chimwi:ni). In applicatives, too, a dependent of the verb that is usually expressed as a PP is turned into a direct NP argument. In this case, the process is marked by special morphology on the verb, an applicative morpheme. An example from Kinyarwanda is given in (115) (from [Baker 1985a](#) : 400 – as can be seen from the glosses, the applicative is very similar to the English dative alternation, though it applies to more types of arguments):

(115)		Umugabo y-oohere-je ibaruwa kw'iiposita.
	a.	man send letter to-post-office
		Umugabo y-oohere-je-ho iposita ibaruwa.
	b.	man send-APPLIC post-office letter

According to [Baker \(1988a\)](#), an applicative morpheme is in fact the preposition of the PP in the (a) example, now incorporated into the verb. Baker shows that this process of P-incorporation is possible only from argumental PPs, not from adjunct PPs (as expected, given that adjuncts are strong islands; cf. [Huang 1982a](#)). Given that adjunct middle formation in Dutch seems to be sensitive to this same distinction, a process similar to applicative appears to take place here. There is of course a clear difference: no overt reflex of the preposition is present on the verb in Dutch adjunct middles. It is absolutely impossible to express the P:

(116)		*Deze naalden mee-breien/breien-met prima.
	a.	these needles with-knit/knit-with fine
		*Deze stoel in-zit/zit-in lekker.
	b.	this chair in-sits/sits-in nicely

[Ackema and Schoorlemmer \(1994\)](#) therefore propose that in Dutch P-incorporation does not take place in syntax, as in Kinyarwanda, but at the level of Conceptual Structure (cf. [Jackendoff 1990b](#)); i.e., before projection to syntax (to two separate syntactic heads) takes place.

In short, it seems that when 'promotion to subject' in middles takes place (impersonal middles aside), only arguments can be so promoted. Then there is language variation as to whether an applicative-like process is available that can turn argumental PPs into argumental DPs and thus into potential grammatical subjects.

In fact, not every DP argument can always be promoted to subject under middle formation, not even when it would be of the right type semantically (so when it is a bona fide Patient, or a delimiter, or something similar). In particular, middle formation turns out to give bad results when a verb takes more than one internal argument. In other words, it is sensitive to the following condition:

(117)	Anti-double object condition:
	Verbs in a double object construction do not undergo middle formation.

Consider a verb like *sell*, which can optionally take a second internal argument, namely a Goal, next to its Patient argument. This verb forms perfectly acceptable middles (as in (118b)), but when the Goal argument is present in a double object construction, middle formation is not possible any more (as shown in (118c)). Note that middle formation is equally impossible when the Goal argument rather than the Patient is promoted: see (118d) (cf. [Kayne 1982](#)):

(118)	a.	I sold (the linguists) the books.
	b.	Such books sell well.

(118)	c.	*Such books sell linguists well.
	d.	*Linguists sell such books well.

It seems fair to say that this restriction is still ill understood (but see [Everaert 1990b](#), [Ackema and Schoorlemmer 1994](#), [Hulk and Cornips 1998](#), [Zwart 1998](#), [Kerstens 2000](#) , and [Steinbach 2003](#) for some suggestions).

Another proposed restriction on the grammatical subject is one that we have taken for granted so far, but which is certainly not trivial: it must be an argument of the middle verb:

(119)	Argument sensitivity:	
	The grammatical subject of a middle (if present) must be an argument of the middle verb.	

That this is not trivial can be seen when we consider the grammatical subject in passives, for which this condition does not hold. Thus, exceptionally, case-marked subjects of some infinitival complements can become the grammatical subject of the matrix verb under passivization, but not under middle formation:

(120)	a.	He was believed to be a rich man.
	a'.	*He believes to be a rich man easily. (*on middle reading)
	b.	She was expected to win the race.
	b'.	*She expects to win the race only with difficulty. (*on middle reading)

This concludes the syntactic restrictions on the subject (the logical object) of the middle verb.

A final generalization that has been proposed is a semantic one again. This a restriction on what this argument should not be, rather than what it should be, for it to be promotable under middle formation:

(121)	Anti-effectedness condition:	
	The subject in a middle should not be an effected object of the verb.	

This restriction has been proposed by [Zwart \(1998\)](#) , who derives it from an incompatibility between the syntactic structure he proposes for middles and the one in which verbs with effected objects occur. The notion ‘effected’ should not be confused with the notion ‘affected’ in (95). An effected object is one that comes into existence by the action denoted by the verb. So verbs like *build*, *paint*, *write*, and *knit* can take an effected object, as the Dutch examples in (122) illustrate:

(122)	a.	Bob bouwde een nieuw huis.
		Bob built a new house
	b.	Bob schilderde een landschapje.
		Bob painted a landscape-DIM

(122)		Bob schreef een detectiveroman.
	c.	Bob wrote a detective novel
		Bob breide een nieuwe trui.
	d.	Bob knitted a new sweater

The house in (122a) comes into existence as a result of the building. Similarly, the picture is created by the painting, the novel by the writing, and the sweater by the knitting. Note that, looking at it from an aspectual point of view, this is a subcase of Vendler's class of accomplishments, or, in [Tenny's \(1987\)](#) terms, these are subcases of the aspectual type in which the object 'measures out' the event described by the verb. That means the condition in (121) seems to be in opposition to both Fagan's aspectual condition in (77) and the one proposed by [Hulk and Cornips \(1998\)](#) (see (88)). Nevertheless, the following examples appear to indicate that middle formation is indeed impossible with verbs with an effected object:

(123)		??Dit huis bouwt niet makkelijk.
	a.	this house builds not easily
		?*Dit schilderij schildert gemakkelijk.
	b.	this painting paints easily
		?M'n nieuwe boek schrijft niet gemakkelijk.
	c.	my new book writes not easily
		?*Deze trui breidt moeilijk.
	d.	this sweater knits difficult

Note, however, that examples like this are independently ruled out by another restriction on middle formation we have already encountered, one that seems to be necessary next to other conditions one might want to propose anyway (see also the next subsection). This is the 'responsibility' condition in (83), which states that the subject of a middle "must have properties such that it can be understood to be responsible for the action expressed by the predicate". The subjects in (123) cannot possibly comply with this restriction, precisely because they only come into existence as a result of that action.

This interfering factor can be neutralized by using generic arguments as subjects (logical objects). A specific house that comes into being as a result of some building action cannot have any properties before it is finished (i.e., before it actually is that specific house) which could make it responsible for building being difficult.¹⁸ However, a generic class of (a particular type of) houses certainly can have properties such that building a house of that type is difficult. As it turns out, examples like (123) are fine with generic subjects:

(124)		Dat soort huizen bouwt niet makkelijk. (said by one builder to another)
	a.	that kind houses builds not easily
		Zo'n landschapje schildert gemakkelijk.
	b.	such-a landscape-DIM paints easily
		Dat soort flutromannetjes schrijft gemakkelijk.
	c.	that kind dross-novel-DIM-PLUR writes easily

(124)	Zulk soort truien breit niet moeilijk.
	d. that kind sweaters knits not difficult

On the whole, we have seen that, at least cross-linguistically, various types of constituent can become the subject of a middle. An attempt to capture the restrictions on middle formation by invoking a particular condition concerning properties of this element is therefore likely not to work for all instances of middles. Nonetheless, it remains to be explained why, although there are other possibilities, the ‘affected object’ seems to be the prototypical thing to get promoted to subject in a middle. In the next subsection we will see that this might be a side effect of a condition about what properties the logical subject argument must have for middle formation to be possible.

6.3 Properties of the logical subject

Just as there is a ‘classic’ condition on the grammatical subject of a middle, namely the affectedness condition discussed in the previous subsection, there also is a ‘classic’ condition on the logical subject (i.e., the suppressed argument), namely that it be an Agent ([Abraham 1986](#) ; [Pitz 1987](#) ; [Roberts 1987](#)):

(125)	Agentivity condition:
	The logical subject in a middle must be an Agent.

Consider again the contrast between the possible middles in (126) and the impossible ones in (127):

(126)	a.	Bureaucrats bribe easily.
	b.	That book reads well.
	c.	Greek does not translate easily.

(127)	a.	*The Eiffel Tower sees easily.
	b.	*The answer knows easily.
	c.	*Spies don't recognize easily.

It seems clear that, whether or not other conditions are capable of capturing this distinction, it (also) follows from (125). Useful tests that indicate whether or not an argument is an Agent in the relevant sense are the possibility of using agent-oriented adverbials like *intentionally* or *on purpose*, and use of the ‘what XP did to YP’ frame (see), in which XP is an Agent.¹⁹ These tests indicate that the subject argument of *bribe*, *read*, and *translate* are Agents, whereas the subject arguments of *see*, *know*, and *recognize* are not:

(128)	a.	The Mafia boss intentionally bribed the bureaucrats.
	b.	What Mary did was read a good book.
	c.	What Harry did was translate a Greek text.

(129)	a.	#The tourist intentionally saw the Eiffel Tower.
	b.	#What most of the students did was know the answer.
	c.	#James Bond intentionally recognized the other spy.

Nevertheless, [Fagan \(1992\)](#) argues that (125) fails to be general enough, for both English and German. She gives an example from German of a verb which appears to have a very non-Agent-like subject argument, but which is nevertheless attested to form a middle, namely *sterben* ‘die’:

(130)	So schnell stirbt es sich nicht.	
	thus quickly dies it REFL not	
	‘One doesn’t die that quickly.’	(Brinker 1969 : 9)

This example is remarkable for another reason, namely that *sterben* is an unaccusative verb in German, which means an internal rather than an external argument has been suppressed. Such verbs do not usually undergo middle formation. In Dutch, too, the same verb, *sterven*, can marginally occur as a middle, as in (131) (from [Ackema and Schoorlemmer 1994](#)):

(131)	??Het bejaardenhuis sterft rustiger dan het slagveld.	
	the old-people-home dies more-quietly than the battlefield	

The example has a similar status to examples of passives formed from unaccusatives (on which, see [Everaert 1986b](#); [Zaenen 1993](#)); that is to say, it has an ‘intentionally playing with language’ effect with somewhat jocular overtones. This same effect in fact holds of the German example in (130), as well as of other constructed examples of middles from unaccusatives (thanks to Susi Wurmbrand for discussion of the German data):

(132)	a.	?Een judomat valt beter dan een betonnen vloer.	Dutch
		a judomat falls better than a concrete floor	
	b.	?In Schiphol kommt es sich leicht an.	German
		in Schiphol arrives it REFL easily PARTICLE	

What is crucial is that such examples have precisely the same status as an active example in which the verb in question is deliberately used agentively in contrast to its normal usage, giving rise to the ‘funny’ effect:

(133)	☹ Grootvader stierf opzettelijk te vroeg om het testament nog te kunnen laten veranderen.	
	Grandfather died on-purpose too early to the testament still to can let change	
	a.	‘Grandfather intentionally died too early (for us) to have the testament changed.’
	☹ Wat de minister van buitenlandse zaken steeds doet is te laat arriveren	

(133)	what the minister of foreign affairs constantly does is too late arrive
	b. 'What the minister for foreign affairs constantly does is arrive too late.'

Hence such examples are not counter-examples, but rather seem to give extra support to the agentivity condition: it is possible to construct them to the same extent that it is possible to use the verbs in question agentively.

However, counter-examples to (125) in the other direction are rather more easy to come by. That is to say, there are cases in which a verb that does have an Agent for its subject argument nevertheless cannot undergo middle formation. Fagan cites the following examples from English and German (the latter from [Wagner 1977](#)):

(134)	a. *The finish line reaches easily.
	b. *This wall hits easily.
	c. *That dog kicks easily.

(135)	*Mit der Bundesbahn kommt es sich leicht zur vorgesehenen Zeit an.
	with the national-railway arrives it REFL easily at-the planned time
	a. PARTICLE
	*Dieses Ziel erreicht sich nicht leicht.
b. this goal reaches REFL not easily	

Concerning these, we must first remark that (134b) and (135a) do not seem to have implicit Agent arguments in the relevant sense (i.e., Actor arguments in Jackendoff's sense; see note 19): #*What the car did was hit the wall*, #*Sue and Mary intentionally arrived on time*. The former does have an agentive use, however (*John hit Bill on purpose*), and at first sight middle formation is not much better in this use (??*Bill hits easily*; although there is a movie in which Humphrey Bogart states "*I don't slap that easily*").

However, it seems these examples are again independently ruled out by the responsibility condition in (83), which, as noted, appears to be needed next to whichever other conditions on middle formation might hold. (As noted in , Fagan, too, explicitly argues that it is needed alongside the aspectual condition in (77).) Consider the example in (134a): a finish line cannot have any properties that make reaching it easy. (The distance between start and finish line can be such that reaching the finish line is easy – but that distance is not a property of the finish line. A crooked finish line is not easier or more difficult to reach than a straight one, nor a white one easier to reach than a red one, etc.) Examples with (the agentive use of) verbs like *hit* and *kick* appear to improve considerably when a generic subject is used (see (136)), as it is more easy to imagine a class of things having properties which make it easy or difficult to hit/kick them than an individual object (compare also the previous subsection on effected objects), indicating that (83) is responsible for the deviance of at least (134b, c).

(136)	a. Big dogs kick more easily than little ones. (said by one utter bastard to another)
	b. Quick opponents do not hit easily. (said by one boxer to another)

There is a close relation between the agentivity condition on the logical subject in (125) and the affectedness condition on the grammatical subject in (95) (and as we have seen, in turn there is a close relation between this affectedness condition and the aspectual conditions on middle formation in terms of the *Aktionsart* that the active VP counterpart to the middle must have; see (77) and (88)).

Many verbs that have an Actor/Agent for their subject argument will have a Patient for their object argument.

This brings up the question of whether the agentivity condition and the affectedness condition are just two sides of the same (perhaps aspectual) coin, or whether one takes precedence over the other. [Ackema and Schoorlemmer \(1994\)](#) argue that the agentivity condition must take precedence, since it can explain some exceptions to the affectedness condition, as we have encountered them in . These are repeated below:

(137)	a.	Greek does not translate easily.	
	b.	Zulke stukken zingen lekker.	Dutch
		such pieces sing nicely	
c.		Das Buch liest sich leicht.	German
		the book reads SICH easily	

These cases are formed from verbs that take an Actor as their first argument, but a non-Patient as their second one ('What Harry did was translate Greek', #'What happened to Greek was Harry translated it'; 'What the choir did was sing Handel's *Messiah*', #'What happened to Handel's *Messiah* was the choir sang it'; etc.). Their well-formedness therefore indicates that (95) is a consequence of (125) in combination with the fact that many Actor-verbs also take a Patient, rather than the other way around.

More importantly, perhaps, is that cases for which (95) cannot be relevant, namely impersonal middles in German and Dutch (see) – that is, middles of verbs with an apparent non-argument as grammatical subject – still must comply with (125). As Ackema and Schoorlemmer show for Dutch, the same distinction between Actor-taking verbs and non-Actor-taking verbs is relevant for impersonal middle formation on the basis of intransitives:

(138)	a.	Jan werkte opzettelijk zonder overall.
		Jan worked on-purpose without overall
	a'.	Het werkt prettig in zo'n overall.
		it works comfortably in such overalls
	b.	Marie liep opzettelijk de verkeerde kant op.
		Marie walked on-purpose the wrong way to
	b'.	Het loopt prettig op deze schoenen.
		it walks comfortably on these shoes
	c.	Carolien zat opzettelijk op de verkeerde plaats.
		Carolien sat on-purpose on the wrong seat
	c'.	Deze stoel zit niet lekker.
		this chair sits not comfortably

(139)	a.	#De zwerver stonk opzettelijk naar alcohol.
		the tramp stank on-purpose to alcohol
		*Het stinkt gemakkelijk zonder je tanden te poetsen.

(139)

a.	it stinks easily without your teeth to brush
	#De oorlogsveteraan trekkebeende opzettelijk.
b.	the war-veteran limped on-purpose
	*Het trekkebeent niet gemakkelijk over grote afstanden.
b'.	it limps not easily over great distances
	#Marie vergiste zich opzettelijk.
c.	Marie erred REFL on-purpose
	*Het vergist zich vlug in ingewikkelde situaties.
c'.	it errs REFL quickly in complicated situations

Let us make a short summary of where we stand at this point concerning the restrictions on middle formation. The first thing to note is that these restrictions differ significantly from language to language, to the point that, as argued by [Authier and Reed \(1996\)](#), some constructions that have been termed middles because of their form might be more properly labeled as a type of passive (see also). At least for type I middles it can be said that, when looking at which verbs can occur in the construction, there seems to be some sort of core type. The core type is a verb that takes an Actor for its logical subject and a Patient for its logical object, which in its active use forms a VP with these arguments that, aspectually speaking, expresses a delimited event or accomplishment.

Nevertheless, there can be exceptions with respect to all three separate factors that play a role here (the presence of an Actor argument, a Patient argument, the expression of a delimited event). Middle formation is sometimes possible when one of these factors is not complied with, and it is sometimes impossible even when all of them are. At least some of these exceptions are captured by a separate condition on the middle verb's grammatical subject/logical object argument, namely that it must be possible to hold it responsible for the action denoted by the middle verb.

6.4 Comparison with passive and lassen-middles

We have discussed similarities and differences between middles, passives, and so-called *lassen*-middles already in . Now that we have seen which restrictions appear to apply to (type I) middle formation (with all due caution because of the exceptions we have also seen), it is useful to come back to this issue, to put it in sharper relief as it were.

Here are the various restrictions that have been claimed to hold of middle formation, as we discussed them in the previous subsections, in a row:

(140)

	Aspectual condition:
a.	Only (transitive) activities and accomplishments undergo middle formation.
	Responsibility condition:
b.	The grammatical subject of a middle (if present) must have properties such that it can be understood to be responsible for the action expressed by the predicate.
	Delimited event condition:
c.	Only verbs with a logical object argument that delimits the event expressed by the predicate can undergo middle formation.
	Affectedness condition:

(140)	d.	A middle verb must have a Patient argument.
		Anti-double object condition:
	e.	Verbs in a double object construction do not undergo middle formation.
		Argument sensitivity:
	e.	The grammatical subject of a middle must be an argument of the middle verb.
		Anti-effectedness condition:
	g.	The subject in a middle should not be an effected object of the verb.
		Agentivity condition:
	h.	The logical subject in a middle must be an Agent (Actor).

Let us see how the constructions that appear to be similar to middles fare on these. First consider passives. These in fact comply with not one of these restrictions. Thus, achievements are often expressed by unaccusative verbs, which cannot be passivized for independent reasons ([Perlmutter 1978](#) ; [Burzio 1986](#) ; [Zaenen 1993](#)), but in other cases they can undergo passivization as readily as accomplishments and activities (see (141a–b)). A number of statives, too, can be passivized (as in (141c–d)):

(141)	a.	The spy was not recognized by anybody.	
		Op 23 januari werd eindelijk de top bereikt.	Dutch
	b.	on 23 January was finally the top reached.	
	c.	Cecilia Bartoli's voice is universally loved.	
		Dat wordt door veel mensen niet getolereerd.	Dutch
	d.	that is by many people not tolerated	

The grammatical subject in a passive need not have properties which can make it responsible for the action expressed by the verb:

(142)	a.	The new Saramago can be bought in any good bookshop.	
		Het voorstel werd uitvoerig besproken in het parlement.	Dutch
	b.	the proposal was elaborately discussed in the parliament	

These same examples show that verbs with non-delimiting, and non-Patient, objects can be passivized. Double object constructions usually allow for passivization, although there is language variation as to which object can be promoted to subject. Thus, in standard English only the IO can be promoted, in Dutch only the DO, whereas in Norwegian either one can be promoted ([Afarli 1992](#)):

(143)	a.	Mary was given some books.	
		Die boeken werden Marie tegen een spotprijs aangeboden.	Dutch

(143)

b.	those books were Marie against a cheap-price offered	
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We have already discussed the fact that passives do not comply with Argument Sensitivity: see (120). The grammatical subject in a passive can also be an effected argument:

(144)	a.	This picture was painted by Picasso.	
		Toen werden er minder huizen gebouwd dan nu.	Dutch
	b.	then were there fewer houses built than now	

Finally, the logical subject argument, which can be expressed in a *by*-phrase in passives, can be virtually any type of argument. It need not be an Agent (or Actor):

(145)	a.	The Eiffel Tower could be seen in the distance.	
		De herrie werd gelaten door het publiek ondergaan.	Dutch
	b.	the noise was resignedly by the audience undergone	

Consider next so-called *lassen*-middles (cf.). In some respects this construction behaves just like the middle (it is presumably for this reason that the construction has been termed a middle in the first place). Typically, for example, the grammatical subject must obey the responsibility condition; see (147) below. Let us see how *lassen*-middles fare on the list of proposed restrictions in (140).

First, the only aspectual class of verbs that seems to resist *lassen*-middle formation are states – achievements are fine:

(146)		De roodgestreepte buikschuiver laat zich gemakkelijk herkennen aan zijn rode strepen. (accomplishment verb)	Dutch
		the red-striped bellyslider lets REFL easily recognize on his red stripes	
	a.	‘The red-striped bellyslider is easily recognizable by its red stripes.’	
		*Anne-Sofie laat zich makkelijk bewonderen. (state verb)	Dutch
		Anne-Sofie lets REFL easily admire	
	b.	‘It is easy to admire Anne-Sofie.’	

As noted, *lassen*-middle formation is restricted by the responsibility condition:

(147)		*De nieuwe Saramago laat zich moeilijk kopen.	Dutch
		the new Saramago lets REFL difficult buy	
	a.	‘It is difficult to buy the new Saramago.’	
		?*Zo’n voorstel laat zich niet gemakkelijk bespreken.	Dutch
		such-a proposal lets REFL not easily discuss	
	b.	‘It is not easy to discuss such a proposal.’	

The logical object/grammatical subject need not be a delimiter or Patient argument:

(148)		Deze piano laat zich moeilijk bespelen.	Dutch
		this piano lets REFL difficult play	
	a.	‘This piano is difficult to play on.’	
		Zo’n daad laat zich moeilijk verklaren.	Dutch
		such-a deed lets REFL difficult explain	
	b.	‘Such a deed is difficult to explain.’	

Lassen-middle formation is also possible from double object constructions in Dutch. Interestingly, it seems that in contrast to what happens in passives, it is the IO rather than the DO that gets promoted to subject:

(149)		*Boeken laten zich bezwaarlijk dat soort mensen verkopen.	Dutch
		books let REFL problematically that sort people sell	
	a.	‘It is problematic to sell books to such people.’	
		?Dat soort mensen laat zich bezwaarlijk boeken verkopen.	Dutch
		that sort people let REFL problematically books sell	
	b.	‘It is problematic to sell books to such people.’	

Lassen-middle formation is not possible from ECM verbs, apparently showing its argument sensitivity (see (150a)). However, for rather ill-understood reasons, not even passive is possible from ECM verbs in Dutch and German (see (150b); cf. [Bennis and Hoekstra 1989](#)). So in this respect there is no difference between these constructions:

(150)		*Zo’n man laat zich makkelijk liedjes horen zingen.	Dutch
		such-a man lets REFL easily songs hear sing	
	a.	‘It is easy to hear such a man sing songs.’	
		*Kaatje werd een liedje horen zingen.	Dutch
		Kaatje was a song heard sing	
	b.	‘Kaatje was heard singing a song.’	

It seems effected objects do not make very good grammatical subjects in *lassen*-middles (perhaps in contrast to true middles – see (124)):

(151)		?*Dat soort truien laat zich moeilijk breien.	Dutch
	a.	that sort sweaters lets REFL difficult knit	
		?*Zo’n soort boek laat zich gemakkelijk schrijven.	Dutch
	b.	such sort book lets REFL easily write	

Finally, where it concerns the logical subject, *lassen*-middles behave like passives rather than middles. This argument can be expressed in a *by*-phrase, and need not be an Agent/Actor:

(152)		Deze componist laat zich inspireren door de schilderkunst.
		this composer lets REFL inspire by the fine-arts
	a.	‘This composer draws his inspiration from the art of painting.’
		Het begrip ‘subject’ laat zich door postmodernisten begrijpen als ‘individu.’
		the notion ‘subject’ lets REFL by postmodernists understand as ‘individual’
	b.	‘The notion of “subject” is understood by postmodernists as “individual.” ’

We may conclude that *lassen*-middles are similar to middles in the kind of semantics they express: they are generic statements, ascribing a property to the grammatical subject. Presumably as a result of this, a number of similar restrictions apply to *lassen*-middles and true middles. However, in other respects the *lassen*-middles are more like passives, which might indicate that syntactically they are unlike real middles. This brings us to the question of what the proper analysis of middle formation is, and whether or not this motivates a syntactic difference with passives.

7 Possible analyses

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7.1 Preliminary: what is a middle in the first place (again)?

To repeat an important point, the proper analysis of middles crucially depends on what is included in the category ‘middle’ and what is not. If we define the category semantically, every construction that expresses the same type of semantics that an English sentence like *this books reads easily* expresses qualifies as a middle. In that case, constructions with different syntax will fall under this rubric, both cross-linguistically and within a single language.

Above, we have seen that middles in French potentially have different syntactic properties from those in English. Similarly, given a semantic definition *lassen*-middles would fall under the same class as ‘true’ middles in Dutch and German, but we have also seen that, syntactically speaking, this construction deviates in a number of respects from the plain middles. It is a very interesting question in its own right what causes this variation in the way the ‘middle semantics’ can be expressed. In this section, however, we will consider what the proper syntactic analysis of individual middle constructions is. We will focus on type I middles. Given that type II middles behave very much on a par with passives syntactically, we might assume, following [Authier and Reed \(1996\)](#) and [Lekakou \(2002\)](#), that, syntactically, they *are* passives. Without further discussion, we will assume that in passives the object is promoted to subject by an instance of A-movement, and that the logical subject is still present syntactically (it may be assigned to the participial morphology, for instance; see [Jaeggli 1986a](#) ; [Baker et al. 1989](#)).²⁰ Alternatively, type II middles must be assumed to have the syntax of type I middles. See for details of this discussion.

7.2 Two types of analysis

Let us consider, then, how to analyze type I middles; that is, middles in which the verb appears in its active form and without any special morphology. Very roughly, two types of analysis can be distinguished.

According to one analysis, there is no significant difference in the way the verb projects its arguments in an active construction, a passive, or a middle. Only the type of element that receives the external argument is different: in an active sentence this is a subject DP, in a passive and a middle it is an empty pronominal argument which does not end up in the surface subject position. This position is subsequently filled by moving the object, which has received the verb's internal theta-role, to this position. In other words, in this approach middles are analyzed just like passives; the differences between the two constructions then follow from their different semantics. Such an analysis was proposed by [Keyser and Roeper \(1984\)](#), and has been developed in various detailed ways, notably by [Hoekstra and Roberts \(1993a\)](#) and [Stroik \(1992a\)](#). In (153) the analysis Hoekstra and Roberts would assign to a middle like *bureaucrats bribe easily* is given; in (154) the analysis Stroik would assign to it:

(153) [_{IP} bureaucrats_i [_{VP} pro [_{V'} bribe t_i easily]]]

(154) [_{IP} bureaucrats_i [_{VP} [_{VP} [_{V'} bribe t_i easily]] PRO]]

In both analyses it is assumed that the object is promoted to subject by an instance of A-movement. Both analyses also assume the verb assigns its external theta-role to an empty pronoun in the syntactic structure. The only difference (which we will not go into here) is that Hoekstra and Roberts assume this pronoun is an instance of *pro* (an empty subject of the type that occurs in finite clauses in pro-drop languages like Italian) in VP-internal subject position, whereas Stroik assumes it is an instance of PRO (an empty subject of the type that occurs in infinitival clauses) in VP-adjoined position.

In the second type of analysis it is assumed that the way the verb's arguments are projected syntactically is different in middles, compared to the way they are projected in active and passive clauses. Such approaches presuppose that at the semantic level of representation at which the verb's argument structure is defined, operations are defined that can affect the way these arguments are projected syntactically.²¹ (For various approaches along these lines, see [Williams 1981a](#); [Di Sciullo and Williams 1987](#); [Grimshaw 1990](#); [Jackendoff 1990b](#); [Reinhart 2000b](#)). What happens in a middle, then, is that the verb's highest theta-role (the role for the logical subject) is not assigned in syntax at all, and that the role for the logical object is assigned directly to the syntactic subject. According to this type of analysis, of which instances can be found ([Fagan 1988, 1992](#); [Roberts 1987](#); [Ackema and Schoorlemmer 1994](#)), the middle *bureaucrats bribe easily* would be analyzed as in (155). (To keep the comparison with (153–154) clear, it is assumed in (155) that subjects in English are merged in a VP-internal position and undergo A-movement to spec-IP to check their case features – but the point is that the logical object argument is projected as a subject directly, not as an object.)

(155) [_{IP} bureaucrats_i [_{VP} t_i [_{V'} bribe easily]]]

Thus, we see that the two types of analysis differ on two main points, concerning the status of the logical subject argument and of the logical object argument. The points of contention are:

(156) What happens to the verb's logical subject theta-role?

Answer of the 'syntactic' account of middles: it is assigned to an empty pronoun in syntax.

Answer of the 'argument structure' account: it is not assigned syntactically.

(157) How can the element that receives the logical object theta-role become the grammatical subject?

Answer of the 'syntactic' account: the verb's logical object theta-role is assigned regularly to a

DP in object position, and this DP undergoes A-movement to subject position.

Answer of the ‘argument structure’ account: the verb's logical object theta-role is promoted from an internal theta-role to the external theta-role.

It is important to note that these two properties of these analyses are really independent of one another.²² It is imaginable, for instance, that the object is promoted to subject by A-movement in syntax while the logical subject is not represented syntactically. We will therefore discuss these issues separately.

7.3 Is the logical subject syntactically present?

Like black holes in astronomy, invisible syntactic elements can be detected indirectly, by the effect they have on their environment. If an empty subject argument is present in syntax, we expect it to have syntactic effects; if it is not, no such effects should be observable. For example, the empty subject *pro* assumed to be present in finite clauses in pro-drop languages like Italian lets itself be detected by the effect it has on the agreement on the verb: *parl-o* ‘talk’ is only possible in the presence of a first person singular subject, *parl-a* ‘talk’ only in the presence of a second person singular subject, and so on. The question is then whether we can detect a potentially present empty logical subject argument.

We will discuss four different types of argumentation that have been put forward to argue for the syntactic presence of the logical subject in a middle.

7.3.1 ‘Classic’ agent identifiers

At least for passives, it seems we can identify a syntactically present logical subject. There are some ‘classic’ arguments for this.

It turns out that an Agent argument uniquely licenses some other syntactic elements. Examples of such elements are agent-oriented adverbs, purpose clauses (where the PRO subject of the purpose clause is controlled by the logical subject argument of the passive verb; see [Chomsky 1981](#) ; [Manzini 1983b](#) ; [Jaeggli 1986a](#)), and of course *by*-phrases, which overtly express the relevant argument.²³ Relevant examples of these agent-diagnostics are given in (158):

(158)	a.	The boat was sunk on purpose.
	b.	The boat was sunk <i>ec_i</i> [PRO _i to collect the insurance].
	c.	The boat was sunk by the enemy.

In this respect, middles differ from passives:

(159)	a.	*Such texts translate easily deliberately.
	b.	*Such texts translate easily to win the Translator's Prize.
	c.	*Such texts translate easily by an experienced translator.

However, there are also some phenomena that indicate syntactic activity by the logical subject argument in middles. For example, secondary predicates predicating over the logical subject are sometimes acceptable in a middle:

(160)	a.	Physics books read poorly when drunk.	
		Dat soort artikelen leest gemakkelijker met een slok op.	Dutch
		that sort articles reads easier with a drink up	
	b.	‘That sort of article is easier to read when drunk.’	

Possibly related to this is the fact that, as observed by [Stroik \(1992a\)](#), certain gerundive adjuncts are acceptable in middles with an understood subject that appears to be controlled by the middle verb's logical subject argument (examples from Stroik):

(161)	a.	Most physics books read poorly [even after [PRO reading them several times]].
	b.	Bureaucrats bribe best [after [PRO doing them a favor or two]].

Hence, as opposed to control into purpose clauses, control of the logical subject into such gerund clauses is possible. The question is then whether the type of control that occurs in these examples necessitates the syntactic presence of the controller or not. This matter will be the topic of the next subsection.

7.3.2 Control

There are two types of control, usually termed ‘obligatory control’ and ‘non-obligatory control’ (cf. [Chomsky 1981](#) ; [Bresnan 1982c](#) ; [Manzini 1983b](#) ; [Bouchard 1984](#) ; [Koster 1987](#) ; [Landau 2000](#) ; [Wurmbrand 2002](#)). In certain syntactic environments, the empty subject of an infinitive needs to be controlled by a syntactic constituent in a c-commanding position, so-called ‘obligatory control’. In other syntactic environments, there can also be a syntactic controller, but in this case it need not c-command the PRO subject of the infinitive. This kind of control is referred to as ‘non-obligatory control’. In cases of non-obligatory control there need not be a syntactic controller at all, and PRO can have arbitrary reference. In this second type of environment, PRO can also be controlled by a non-syntactically realized, so-called ‘implicit’, argument of the matrix verb. A good example of this is dative control, as discussed by [Rizzi \(1986a\)](#) and [Roepers \(1987a\)](#) . They note that, in contrast to a direct object controller ([Bach 1979](#)), a dative controller can be freely omitted in English:

(162) John shouted/said/gave the order (to Bill) [PRO to leave].

If the dative argument of verbs like *shout* is left implicit, it can nevertheless function as a controller. Crucially, as shown by [Rizzi \(1986a : 550–551\)](#), there are reasons to believe that implicit dative controllers of this type are not syntactically represented as an empty *pro*. Rizzi shows that implicit dative objects in English differ from empty direct objects in Italian (which he argues should be represented as *pro*) in not being able to function as antecedent in a binding relation. He concludes from this that “the understood dative . . . does not correspond to a structurally represented position” (1986a: 551). This means that control by an implicit, not syntactically realized, argument is possible in principle. According to [Koster \(1987\)](#) , the only infinitivals whose PRO subject must be obligatorily controlled in English are argumental infinitivals that resist a *for*-complementizer. If this is correct, it would mean that the subject PRO of the adjunct gerunds in (161) need not be controlled by a syntactically present c-commanding antecedent, but can be controlled by an implicit argument as well. This is corroborated by the observation that a typical implicit argument like the Experiencer argument of adjectives like *difficult* or *cooperative* can also control this subject, as is shown in (163) (from [Ackema and Schoorlemmer 1995](#)).²⁴

(163)

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(163)	a.	Most physics book are very difficult [even after [PRO reading them several times]].
	b.	Bureaucrats usually are more cooperative [after [PRO doing them a favor or two]].

In short, whether or not examples like (161) indicate the syntactic presence of the logical subject argument depends on whether the type of control they involve requires the syntactic presence of the controller. It is doubtful that they involve obligatory control.

7.3.3 Binding

In contrast to some control relations, anaphoric binding relations always require the antecedent to be syntactically present. A stronger argument could, therefore, be made if the logical subject argument could also function as the antecedent in a binding relation.

[Stroik \(1992a\)](#) argues that, indeed, the middle verb's logical subject can act as antecedent in a binding relation. In particular, it seems that it can bind anaphors that occur in the grammatical subject/logical object:

(164)	a.	Books about oneself never read poorly.
	b.	Letters to oneself compose quickly.

Although on the surface there is no c-command relation between the *pro* or PRO that is supposed to receive the verb's logical subject theta-role and the grammatical subject, such a c-command relation obtains before the object moves to subject position in an analysis like that in (154):

(165)	[_{IP} [_{VP} [_{VP} [_{V'} compose letters to oneself _i quickly]] PRO _i]] →
	[_{IP} letters to oneself _i [_{VP} [_{VP} [_{V'} compose t _i quickly]] PRO]]

[Belletti and Rizzi \(1988\)](#) have shown on the basis of Binding facts with experiencer verbs in Italian that A-moved elements can optionally reconstruct for Binding purposes. Put differently, Condition A of the Binding Theory can be satisfied both before and after A-movement. Thus, the *oneselfs* contained in the surface subjects in (165) can be bound by the empty pronoun representing the logical subject in the underlying representation of these sentences.

In turn, [Ackema and Schoorlemmer \(1995\)](#) argue that, in examples like (164), the anaphoric elements need not be bound at all. In general, anaphoric elements that are contained inside larger NPs behave like logophoric elements, which do not need a syntactic antecedent. [Pollard and Sag \(1992\)](#) and [Reinhart and Reuland \(1993\)](#) argue that only co-arguments of a predicate are subject to the conditions imposed by the Binding Theory. Hence, if an anaphoric element is contained within such an argument, rather than constituting an argument itself, it escapes Binding Principle A. In that case, it can occur in a position in which its apparent antecedent does not c-command it (as in (166a), from [Jackendoff 1972](#)) or in which no such antecedent is even present (in (166b), from [Ross 1969b](#)):

(166)	a.	The picture of himself that John saw in the post office was ugly.

(166)

b.	Physicists like yourself are a godsend.
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According to Ackema and Schoorlemmer, the same holds for the examples in (164) as well. They point out that the same NPs, containing the same anaphoric elements, can occur in the subject position of a VP headed by a (non-middle) unergative verb, in other words by a verb that does not have a suppressed/empty/implicit argument in any case:

(167)

a.	Books about oneself cause headaches.
b.	Letters to oneself usually stink.

This means that the data in (164) are inconclusive with respect to the question about the syntactic presence of the implicit argument of the middle verb. If the argument of the middle verb is itself a licensed anaphoric element, we may conclude that an indivisible syntactic binder is present. However, such cases are impossible, as shown by (168):

(168) *Yourself photographs easily.

This example does not show the *non*-presence of the logical subject argument either, because anaphors cannot occupy nominative positions anyway (see the Icelandic examples discussed in [Maling 1984](#) ; [Everaert 1986b](#)). This independent explanation for the ungrammaticality of (168) makes it impossible to judge whether the subject is a bound anaphor, and therefore whether an invisible binder should be assumed in this sentence.

All in all, we conclude that this piece of evidence for a syntactically active logical subject is flawed.

7.3.4 For-phrases

Another empirical argument for the syntactic presence of the logical subject argument that [Stroik \(1992a\)](#) puts forward is quite straightforward: it seems this argument can be expressed overtly after all, namely as a *for*-phrase (similar, then, to the *by*-phrase in passives). Some examples are given in (169):

(169)

a.	No Latin text translates easily for Bill.	
b.	?Die stoel zit niet lekker voor opa.	Dutch
that chair sits not comfortably for grandpa		
‘That is not a comfortable chair for granddad.’		

Judgments about such sentences tend to diverge. Some speakers find *for*-phrases in middles odd, in both English and Dutch (the question mark in (b) reflects our own judgments). However, let us focus on the issue of whether, for those speakers that accept them, *for*-phrases are the overt realization of the logical subject argument of the middle verb. There are alternative possibilities. For example, [Hoekstra and Roberts \(1993a\)](#) assume that the *for*-phrase is an Experiencer argument of the adverb (*easily* in (169a), *lekker* in (169b)). This is somewhat hard to maintain in general, however, since *for*-phrases can also be present when there is no adverb (when the modal semantics is only expressed by negation or a modal verb, for example):

(170) (?)That Ancient Greek text won't translate for Bill.

However, the *for*-phrase could also be an adjunct that expresses the experiencer that is induced by the modal semantics associated with the construction as a whole (see [Zribi-Hertz 1993](#) ; [Ackema and Schoorlemmer 1995](#)). In general, it appears that in active sentences with similar modal semantics, similar *for*-phrases can occur, as illustrated in (171).²⁵ Since every argument of the verbs in (171) is already syntactically expressed, at least in these cases the Experiencer *for*-phrase cannot be an argument of the verb:

(171)	a.	As both of those spells do not cost anything in material components, she may cast these things easily for herself.
	b.	In counseling, he was not able to express feelings easily for himself.
	c.	He was surprised the arrangements went so smoothly for himself, his wife, and four children.

[Stroik \(1999\)](#) addresses this issue and presents an interesting argument for the assumption that in middles like (169) the *for*-phrase is really an argument of the verb. It is based on [Reinhart and Reuland's \(1993\)](#) assumption, mentioned above, that only co-arguments of a predicate enter into binding relationships. In particular, it is based on Reinhart and Reuland's version of Condition B of the Binding Theory, which reads as follows:

(172)	Condition B:
	A reflexive semantic predicate is reflexive-marked.

Stroik's argument is as follows. In an example like (173) below, the logical subject argument and the logical object argument seem to refer to the same entity, so that the predicate is reflexive:

(173) Mary photographs easily only for *her/herself.

In this case the *for*-phrase needs to contain a reflexive-marking element, namely a *self*-anaphor. This appears to be unexpected in case the *for*-phrase is not an argument but an adjunct, since in that case it cannot reflexive-mark the predicate – only arguments of the predicate can. If it were an adjunct, the reflexivity of the predicate would be unlicensed, in violation of Condition B in (172).

There is a difficulty with this argument, however. It tries to establish that the *for*-phrase is an argument of the middle predicate, but it appears that in order for it to go through it must presuppose precisely that: only when the *for*-phrase is an argument do we know for sure that the middle predicate is in fact reflexive in (173). It is not a priori clear that we are dealing with a reflexive predicate here. To us, the semantics of the example seems to indicate that this is not so, as the proper meaning of (173) would appear to be ‘an arbitrary person photographing Mary is only easy for Mary herself’, rather than ‘Mary photographing Mary is only easy for Mary herself’. If the predicate is indeed non-reflexive it may not be reflexive-marked (as stated by Condition A of Reinhart and Reuland's Binding Theory: a reflexive-marked predicate is reflexive). In that case, the *for*-phrase in fact must be an adjunct rather than an argument (since it should not reflexive-mark the non-reflexive predicate), and the *self*-anaphor it contains must be logophoric (see above).

At least for Dutch, it can be shown that the *self*-form in examples like (173) is indeed logophoric, not anaphoric. In contrast to English, where *himself* can be either anaphoric or logophoric, the third person reflexive in Dutch has a different form in the two uses. When it is anaphoric it has the form *zichzelf* ‘ZICH-self’; when it is logophoric it has the form *hemzelf/haarzelf* ‘himself/herself’ (cf. [Anagnostopoulou and Everaert 1999](#) : 115–116). It turns out that, insofar as *voor*-phrases are acceptable in Dutch middles in the first place, it is the logophor that can occur here, while the anaphor leads to unacceptable results:

(174)	?Marie fotografeert alleen gemakkelijk voor
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(174)		haarzelf.
	a.	Marie photographs only easily for herself
	b.	?*Marie fotografeert alleen gemakkelijk voor zichzelf.

(175)		?Dit model schildert alleen voor hemzelf gemakkelijk.
	a.	this model paints only for himself easily
	b.	*Dit model schildert alleen voor zichzelf gemakkelijk.

There is a distinction with passives again. In passive *by*-phrases the anaphor rather than the logophor is used when the predicate is reflexive, which indicates this phrase is indeed the overt expression of the suppressed argument here:

(176)		Marie werd door ?*haarzelf/zichzelf gefotografeerd.
	a.	Marie was by herself/REFL-self photographed
		Rembrandt werd regelmatig door ?*hemzelf/zichzelf geschilderd.
	b.	Rembrandt was frequently by himself/REFL-self painted

If the *for*-phrase is not an argument in (173), this leaves open the question of why the bare pronoun *him* cannot be used in it just as well as logophoric *himself*. We will not offer an account of this here, but it is presumably related to the focus that *only* induces on the relevant phrase. Compare the following cases in which an adjunct containing a pronominal element receives a similar focus reading:

(177)	a.	John _i allows Bill to drink from the flask only after himself _i /*him _i
	b.	Mary _i reads books with herself _i /*her _i on the cover only.

This concludes the discussion of the empirical arguments that have been given for the presence of the logical subject argument in type I middles.

7.3.5 A conceptual argument and conclusions

A conceptual argument for the syntactic presence of the logical subject in middles has also been put forward, the most explicit form of which can be found in [Hoekstra and Roberts \(1993a\)](#). The argument is one of the ‘Occam's Razor’ type. In general, it is better, because more explanatory, in theory construction to assume less than to assume more. Therefore, it is better to do without rules or principles that can manipulate a verb's argument structure. It is simpler to assume a verb always projects its arguments in the same way in syntax (compare [Baker's 1988a](#) Uniformity of Theta Assignment Hypothesis). If so, there is no way that the logical subject argument is not projected in a middle too.

Of course, Occam's-Razor-type arguments only go through if all else in the two theories compared is equal. This is not the case here, however. Almost inevitably, there is a cost to not assuming there are operations on argument structure, namely having to assume there are empty

subjects in finite clauses in non-pro-drop languages like English and Dutch. [Hoekstra and Roberts \(1993a\)](#) give an account of why this element can be licensed in these languages in restricted circumstances only. In this account they extend case theory so as to include a special *pro*-licensing inherent accusative case (alongside structural accusative case) in English and Dutch. This means that the two approaches do not make more vs. fewer assumptions; rather, they make different assumptions. One elaborates on the theory dealing with how arguments are projected in syntax; the other elaborates on the theory dealing with how syntactically projected arguments are licensed. It is not a priori clear which one should be enriched and which one should be cut down on.

We conclude that the evidence brought forward to show that the verb's logical subject argument is syntactically present in type I middles is not convincing. It may well be that type II middles differ from type I middles in precisely this respect (see above).

7.4 How is the logical object promoted to subject?

In theories assuming there is no place for operations affecting the way a verb's basic argument structure is realized syntactically, the middle verb's logical object argument must be merged as an object. That it ends up as the surface subject must therefore be a consequence of syntactic movement, namely the well-known 'raising to subject' type of A-movement that has also been argued to occur in passives ([Chomsky 1981](#) ; [Jaeggli 1986a](#)), with unaccusative verbs ([Burzio 1986](#)), and from the complement of so-called 'raising' verbs ([Chomsky 1981](#)). Under this view, then, middles are seen as another instance of such unaccusative constructions.

In theories in which operations can be defined over argument structures such that a verb does not project the same arguments in the same way in every instance, promotion of an internal argument to an external argument can be seen as the result of such an operation. [Williams \(1981a\)](#) indeed proposes that there are general Externalize(X) operations, where X is some designated argument. [Roberts \(1987\)](#) proposes that the logical object argument of the middle verb ends up as its grammatical subject as a result of an Externalize(Theme) operation applying to the argument structure of the middle verb. In this scenario, the logical object argument is merged directly as an external argument, in the subject position. As a result, the middle is not an unaccusative, but rather an unergative construction.

As [Hoekstra and Roberts \(1993a\)](#) point out, however, any rule of the type Externalize(X), with X a particular type of argument, is unlikely to capture the full range of data. Various types of argument can become the subject in a middle, not only Themes (as in (178a)) but also Locations (as in (178b)) or Experiencers (as in (178c)):

(178)	a. Hay loads easily.
	b. This truck loads easily.
	c. Children scare easily.

An analysis in terms of Externalize(X) also does not extend to impersonal middles as they occur in Dutch and German, and presumably also not directly to adjunct middles as they occur in Dutch (see).

[Ackema and Schoorlemmer \(1994\)](#) argue that, nevertheless, the relevant data are not incompatible with approaches in which the logical object is merged as an external argument. For this to be possible, the property of being an external argument must not be regarded as a designated property of a particular argument in the verb's argument structure, as in [Williams's \(1981a\)](#) original conception. Instead, argument structures as a whole can have the property that one of the arguments they contain must be projected as an external argument.²⁶ The one that is normally projected as such is the one that is highest on some thematic hierarchy (cf. [Baker 1988a](#) ; [Grimshaw, 1990](#) ; [Jackendoff 1990b](#)). According to Ackema and

Schoorlemmer, the defining property of a (type I) middle is that precisely this argument receives arbitrary interpretation and is not projected syntactically. They suggest that in case the a-structure is marked as having to project one of its arguments externally, the argument that is the next one down on the thematic hierarchy automatically becomes the external argument (see also [Bouchard 1984](#)).

This approach can be extended to impersonal middles and adjunct middles, as follows. If the Actor/Agent is suppressed, intransitive verbs have no other argument left that can be merged as a DP subject. If the a-structure nevertheless contains the instruction that there should be an external argument, a language may have either or both of two last resort strategies. One is to insert a dummy external argument, resulting in an impersonal middle. The other is to turn a PP argument into a DP argument, eligible for being a subject, before projection to syntax takes place. (This is effected by an applicative-type operation; see .) This results in an adjunct middle. This, of course, does not account for why these constructions are limited to certain languages only.

As far as the theory goes, then, both approaches can account for promotion of the logical object. Recall that under the ‘move the object to subject position’ approach, middles are expected to pattern with unaccusative constructions, whereas under the ‘pick the next argument after the suppressed one as external argument’ approach, middles are expected to pattern with unergative constructions. [Ackema and Schoorlemmer \(1995\)](#) argue that, at least for Dutch, the data seem to indicate that middle verbs behave like unergatives. We will mention two of the clearer pieces of data here.

A first difference between unergatives and unaccusatives in Dutch concerns their choice of auxiliary in the perfect tense. As in Italian, unergatives take the cognate of *have*, namely *hebben*, as perfect auxiliary, whereas unaccusatives take the cognate of *be*, namely *zijn* (cf. [Perlmutter 1978](#) ; [Burzio 1986](#)):²⁷

(179)	a.	Ze hebben/*zijn gelopen/gefietst/gezwommen/gedineerd.
		they have/are walked/cycled/swum/dined
	b.	Ze *hebben/zijn gearriveerd/gevallen/gestorven/ontsnapt.
		they have/are arrived/fallen/died/escaped

Middles uniformly take *hebben*:

(180)	a.	Dit soort vlees heeft/*is altijd gemakkelijk gesneden.
		this type meat has/is always easily cut
		‘This type of meat has always been easy to cut.’
	b.	Deze trui heeft/*is altijd gemakkelijk gewassen.
		this sweater has/is always easily washed
		‘This sweater has always been easy to wash.’

Second, unaccusatives but not unergatives allow their past participle to function as an attributive modifier of a noun:

(181)	*de gelopen/gefietste/gezwommen/gedineerde mensen
-------	--

(181)	a.	the walked/cycled/swum/dined people
		de gearriveerde/gevallen/gestorven/ontsnapte mensen
	b.	the arrived/fallen/died/escaped people

Middles again pattern with unergatives in not being able to occur as a prenominal past participle:

(182)	a.	*het altijd gemakkelijk gesneden vlees
		the always easily cut meat
		'the meat that has always been easy to cut'
	b.	*de altijd lekker gelopen schoenen
		the always comfortably walked shoes
		'the shoes that have always been nice to walk in'

If such data tell us anything about whether the argument of the verb is an external one or an internal one (cf. note 27), then middles in Dutch are part of the class of verbs whose argument is external. (Note, again, that there may be language variation in this respect, and that possibly type II middles as they occur in Romance and Slavic are different.)

Another type of evidence that might decide between the two views was already briefly mentioned in . A-movement of NPs to subject position is not restricted to arguments of the verb whose subject position they fill. For example, the subject of the complement to a verb like *believe* (an 'Exceptionally Case Marked' subject) can be raised to the matrix subject position in a passive:

(183)	a.	I believe [John to be a fool].
	b.	John _i is believed [t _i to be a fool] by everyone.

If promotion to subject is the result of an operation over the argument structure of the middle verb, then of course an element that is not part of that argument structure cannot be thus promoted.

In contrast to passives, middle verbs appear to disallow promotion of an element that is an argument in their complement rather than being an argument of the middle verb itself.

Compare (183b) and (184):²⁸

(184) *John believes to be a fool easily.

[Hoekstra and Roberts \(1993a\)](#) argue that there is a class of examples in which a non-argument of the verb is promoted to subject, namely resultative constructions. They argue that in such constructions the internal argument of the verb is a Small Clause (SC). The second DP in the clause then is not an object of the verb, but the subject of the secondary predicate in this SC (see (185)). Nevertheless, such DPs can become the subject of a middle (see (186)):

(185)	a.	Mary hammered [_{SC} the metal flat].

(185)	Jan maakte [_{SC} de kwast schoon].	Dutch
	John made the brush clean	
	b. 'John cleaned the brush.'	

(186)	a. Such metal hammers flat easily.	
	Deze kwast maakt gemakkelijk schoon.	Dutch
	b. this brush makes easily clean	

The strength of such arguments, of course, depends on the strength of the syntactic analysis according to which the promoted DP is or is not an argument of the middle verb. Thus, not everyone would agree that ECM subjects are not arguments of the matrix verb (see, e.g., [Bierwisch 1990](#)), thus making the impossibility of promoting them in a middle no argument for the a-structure approach. Similarly, but to opposite effect, it has been argued that the second DP in (185) is an argument of the verb as well as of the secondary predicate (see [Carrier and Randall 1992](#); [Neeleman and Weerman 1993](#); [Neeleman 1994a](#); [Williams 1980, 1994](#)), so in that case the possibility of promoting it to subject is not an argument for the A-movement approach.

8 Conclusion

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As we have seen, when we define 'middle' as a particular type of semantics, then languages vary considerably in the syntactic means they use to express this semantics. At least, it seems safe to conclude that the constructions that have been put into the rubric 'middle' in various languages differ significantly in their syntactic properties. The question is whether this language variation can be connected to other properties of the languages. In other words, we should wonder why in Dutch and English a middle verb, in contrast to a passive, does not show any special morphology or other marker indicating that we are dealing with a middle; why in German, French, and Serbian a reflexive is used; and why in French and Serbian but not in German this makes the construction identical to one type of passive. This interesting issue has not been addressed very often yet, though see [Hulk and Cornips \(1998\)](#) and [Lekakou \(2004\)](#) for some suggestions. There is certainly a lot more to be said about middles.

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1 A note on the terminology used here: when it is important to distinguish between the verb when it is used in the particular non-active mood under discussion here, and the complete construction in which such a verb is used, we will use the term 'middle verb' for the former and 'middle sentence' (or 'middle construction') for the latter. Where this distinction is not relevant, we will simply use 'middle' to refer to both.

2 It might be argued that the *s*-passive really is a true passive, in which case the impossibility of derivatives from unaccusative verbs is predicted and the construction would

not bear on the issue at hand. It does not, however, take ordinary passive morphology. This is exactly equivalent to the status of other type II middles, which are almost indistinguishable from passives except morphologically.

3 Note that adding a time adverbial to a generic sentence is possible without necessarily affecting its generic character. Consider a clause with an individual-level predicate like *resemble*. It is perfectly feasible to add *yesterday* to such a clause without this turning the clause into an episodic one. Consider example (i):

(i) Yesterday Frida resembled her grandfather.

If Frida has had cosmetic surgery since yesterday, (i) makes perfect sense. The same holds for middles. One can add a time adverbial to *bureaucrats bribe easily* without this meaning that middles (of type I) lose their genericity; for example, *bureaucrats bribed easily last year, but since the anti-corruption campaign they don't any more*.

4 There is also considerable speaker variation in how good *for*-phrases in middles are considered to begin with, but we will ignore this here.

5 The existence of such cases is used by [Fagan \(1992\)](#) to argue for a lexical derivation of all middles in French. However, by this argument the same should be true for reflexive-marked passives, because some reflexive-marked passives also have special, non-compositional semantics, as the following example from [Fagan \(1992 : 145\)](#) shows:

(i) Cela ne peut pas se payer.

that not can not REFL pay

‘That cannot be had for money.’

We think that basically any syntactic construction can give rise to lexicalized instances (cf. [Jackendoff 1996](#)).

6 [Authier and Reed \(1996\)](#) claim that in Canadian French, episodic middle sentences obligatorily take *by*-phrases. Even if we follow their argument that this pleads for a unitary approach to the passive and the middle readings, it seems a very unlikely generalization, given that neither French nor related languages show this pattern in ordinary passives. We expect to find at least an equally passive variant of such a clause in which the *by*-phrase can be left out, and probably also a stative variant of such a middle which also allows a *by*-phrase. In any event, such a correlation is not valid cross-linguistically, since, for example, Russian reflexive-marked passives with *by*-phrases can only be statives ([Gerritsen 1990](#)).

7 Perhaps unexpectedly, some examples of this with type I middles are in fact acceptable: see .

8 A similar phenomenon can be found in Norwegian, where the middle-like *s*-passive can be found in control structures, but the morphological passive cannot, as illustrated in the following examples ([Øystein Nilsen, p.c.](#)):

	Denne suppa må spises kald.
(i)	this soup must eat-S cold
	*Denne suppa må bli spist kald.
(ii)	this soup must be eaten cold

9 Treating the restriction as one on animacy is not possible for Italian, since it is

unproblematic to have an animate subject in Italian type II middles also when they have the middle reading:

	Quell'uomo politico ha il vantaggio di potersi corrompere facilmente.	
(i)	this politician has the advantage of be-able-REFL bribe easily	(Cinque 1988: 562)

10 An interesting question, then, is whether we can predict which languages will use reflexive-marked passives to express the middle and which will use the active. According to [Lekakou \(2002\)](#), it can be made to follow that if a language has imperfective aspectual morphology available to make generic sentences, it will have type II middles; otherwise it will have type I middles.

11 These classes really express VP-aspect, in that properties of the object are relevant in determining in which class a certain expression belongs (see [Tenny 1987](#) ; [Verkuyl 1972, 1993](#)). It might hence seem to be more appropriate to refer to this approach as one based on *Aktionsarten* rather than verb aspect, but since the latter is how Fagan refers to the approach herself, we will keep it under this rubric.

12 The 'if present' clause must be added because of the existence of impersonal middles (see), which do not have a subject. Obviously, this shows that (83) cannot be taken to be an absolute condition on all middle formation.

13 That in practice you stop listening to music after a while is not described by *listen to music* itself. This predicate is not delimited; it does not have an inherent end-point (readers who do not see this are advised to listen to Wagner's *Parsifal*).

14 Interestingly, [Hulk and Cornips \(1998\)](#) note that *see* is a verb which in Heerlen Dutch, too, is not eligible for middle formation (**De Eiffeltoren ziet zich gemakkelijk*; compare with (87)), making it not entirely comparable to French after all. We might speculate that this 'in-between' status of Heerlen Dutch is due to pressure from Standard Dutch, with its restricted aspectual possibilities for verbs to undergo middle formation; see [Cornips \(2000\)](#) for interesting sociolinguistic research and relevant data with respect to this issue.

15 Compare also [Verrips \(1996\)](#), where it is shown that Dutch L1 learners go through a stage in which a construction that is clearly a passive rather than a middle is not marked morphologically.

16 For Negerhollands this cannot be ascertained directly any more, since the language is extinct.

17 The preposition *met* 'with' changes its form to *mee* when stranded.

18 In normal usage, though, *this house* can also refer already to the unfinished thing, and that thing can have properties which make the continuation of the building difficult. Presumably because of this, the example really does not seem so bad to us at all.

19 This test is from [Jackendoff \(1990b\)](#), where the relevant argument is termed Actor. The distinction Jackendoff makes between two tiers at Conceptual Structure, a thematic tier and an action tier, allows him to distinguish the highest argument at the action tier, termed Actor, from the highest argument at the thematic tier, termed Agent. The latter is a general Cause argument which can but need not be an Actor (cf. also [Grimshaw 1990](#), [Levin and Rappaport Hovav 1994](#), and [Reinhart 2000b](#) for somewhat comparable proposals, worked out differently). [Ackema and Schoorlemmer \(1994\)](#) argue that the relevant argument for the condition on the logical subject in middle formation is the Actor in Jackendoff's sense, not the Agent/Cause.

20 But see [Di Sciullo \(1990\)](#) for an analysis of middles in Italian that goes against this assumption.

21 It is sometimes argued that two different types of such levels and/or two different types of such operations should be distinguished (see, for instance, [Spencer and Sadler 1998](#) ; [Aranovich and Runner 2001](#)), but our discussion does not hinge on this.

22 To illustrate that partitioning into these two types of analysis is necessarily simplifying things somewhat, [Massam \(1992\)](#) proposes an interesting analysis of middles in which the verb's internal theta-role is assigned regularly to object position, but in which there nevertheless is no A-movement to subject position. This is possible because Massam assumes that the DP we see in subject position is really a non-thematic element, which functions as antecedent for an empty pronoun in object position. Hence, Massam would assign the *bureaucrats bribe easily* example the following structure (where 'ec' stands for the appropriate empty category, according to Massam an empty reflexive pronoun):

(i) [_{IP} bureaucrats_i [_{VP} \bar{V} bribe ec_i easily]]

The same analysis is proposed by [Steinbach \(2003\)](#) for German middles (for discussion see also [Lekakou 2004](#)).

23 However, it should be noted that, certainly where purpose clauses are concerned, the claim that these must be licensed by an Agent argument has not gone unchallenged; see, for instance, [Grimshaw \(1990\)](#) .

24 At least, there does not seem to be an independent reason to assume that in English the Experiencer argument of such psych-adjectives is syntactically present. [Tóth \(2000\)](#) argues that in Hungarian this type of argument must be syntactically represented.

25 A reviewer remarks that the *for*-phrases in middles differ from experiencer *for*-phrases. Thus, she or he finds there is a contrast between (i) and (ii):

(i) No Latin text translates easily for Bill.

(ii) It happened much too quickly for me.

According to the reviewer, the *for*-phrase in (ii) is an experiencer adjunct that can be paraphrased as 'from X's perspective'. In contrast, the *for*-phrase in (i) can only be interpreted as the logical subject of *translate*, according to the reviewer: she or he totally rejects a paraphrase 'from Bill's perspective, no Latin text translates easily' for this example. In our view, this paraphrase expresses exactly what (i) means. A syntactic difference between the two *for*-phrases does exist, but not the one intended by the reviewer. Rather, the *for*-phrase in (ii) is an argument of the degree word *too*, whereas the one in (i) is an adjunct to the verb.

26 There is a lively debate on whether this property can be reduced to some semantic property of the predicate and, if so, what the proper semantic property is in this respect. For various views see [Borer \(1994\)](#) ; [Levin and Rappaport Hovav \(1994\)](#) ; Van [Hout \(1996\)](#) ; [Reinhart \(2000b\)](#) ; and the papers in [Alexiadou et al. \(2004\)](#) .

27 It should be noted here that there is disagreement in the literature on whether the different choice of auxiliary is connected to a syntactic difference between unergatives and unaccusatives (taking an external or an internal argument). Several authors have argued that auxiliary selection is related to semantic differences between the two classes of verbs alone (see, for instance, Van [Valin 1990](#) ; [Zaenen 1993](#) ; and [Lieber and Baayen 1997](#)). [Fagan \(1992\)](#) argues that this holds for German as well and that syntactic unaccusativity in fact does not exist in this language. However, others argue that the differences between unergatives and unaccusatives do reflect a syntactic distinction in the languages under discussion (see, for example, [Burzio 1986, 2000](#) ; and other papers in [Reuland 2000](#)). Specifically with respect to

auxiliary selection see ([Hoekstra 1986b, 1999](#) ; [Vikner and Sprouse 1988](#) ; [Ackema 1999](#)). Finally, it is also possible that in constructions like (180) it is the auxiliary *hebben* itself that undergoes middle formation (!), which would presumably also void the argument. An analysis along these lines is developed by [Kerstens \(2000\)](#)).

28 [Ackema and Schoorlemmer \(1995\)](#)) also mention the impossibility of promoting an idiom chunk to subject in a middle, vs. the possibility of doing this in a passive:

	a.	Advantagei was taken t _i of John.
(i)	b.	*Advantage takes easily of naive customers.

However, it seems clear that (ib) is impossible for independent semantic reasons: it does not make sense to make a generic statement ascribing some property to an idiom chunk.

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