Telicity, Specificity, and Complements with a “Partitive Article” in French

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1 Introduction

The aim of this paper is to discuss and analyze French sentences with a *des*-complement (i.e. a complement introduced by the so-called “partitive article” in the plural) and determine how this complement affects the telicity of the situation, that is, the involvement of a culmination or endpoint (cf. De Swart 2006).¹ Historically, the article *des* ‘of.the.PL’ comes from the preposition *de* ‘of’ and the plural definite article *les* ‘the.PL’ (Carlier 2007) but nowadays generally has an indefinite interpretation and not a real partitive one in the sense of a part-whole relation (Storto 2003; Ihsane 2008; Cardinaletti and Giusti 2016a; a.o.).² To illustrate the issue we are interested in, let us consider (1):

- (1) *Marie a mangé des fraises *en une demi-heure / pendant*
 Marie has eaten PA.PL strawberries *in a half-hour / for
une demi-heure.
 a half-hour
 ‘Marie ate strawberries for half an hour.’

One way to distinguish between telic and atelic situations is to use *en*- ‘in’ and *pendant*- ‘for’ temporal adverbials (De Swart 2006; Guéron 2006): the former modify telic situations whereas the latter target atelic situations. In (1), the *pendant*-adverbial is perfectly acceptable with the *des*-complement, whereas the *en*-adverbial is generally considered as bad. On the basis of such data, *des*-NPs are described as unbounded, that is, without a bound or unlimited in some way, in contrast to *plusieurs* ‘several’, for instance, as illustrated in (2) (Kupferman 1979; Bosveld-de Smet 1998, 2004; Roodenburg 2004; De Swart 2006):³

1 The use of the term “situation” is explained in Section 2.1.

2 See also Giusti, this volume for a detailed analysis of several indefinite articles, including the “partitive article”, in Italian and Italo-Romance.

3 We use the label NP for “nominal constituent” and remain agnostic on the presence/absence of further functional layers such as DP.

- (2) *Il a mangé plusieurs gâteaux en / *pendant une heure.*
 he has eaten several cakes in / for an hour
 'He ate several cakes in an hour.'

In the nominal domain, (un)boundedness can be related to different semantic oppositions, such as the singular/plural or the mass/count oppositions (Corver 2015). According to Corblin et al. (2004), it is because *des*-NPs (and the singular *du*-NPs) do not "delimit individual referents" (2004, 19) that *en*-adverbials are out in examples like (1).

The use of temporal adverbials in the English counterpart to (1) suggests that *des*-complements like *des fraises* 'strawberries' are analogous to bare plurals, a well-known parallel (for e.g., see Schurr, this volume, for a usage-based approach of the analogy, but also Dobrovie-Sorin, this volume, for an analysis that shows that bare nouns and *des*-NPs should be distinguished):

- (3) *Mary ate strawberries *in half an hour/for half an hour.*

In (3), the *in*-adverbial is impossible, whereas the *for*-adverbial is fine, showing that the situation is atelic, as the one in (1).

Examples like (1) can, however, become grammatical with an *en*/'*in*'-adverbial as illustrated in (4):

- (4) [Context: Marie is in a hurry because she has an appointment. Since she is hungry, she eats the strawberries on the table very quickly]:
Marie était pressée et a mangé des fraises en 5
 Marie was in.a.hurry and has eaten PA.PL strawberries in 5
minutes.
 minutes
 'Marie was in a hurry and ate some strawberries in 5 minutes.'

Example (4) is acceptable although the nominal complement *des fraises* cooccurs with *en 5 minutes* 'in 5 minutes', which contrasts with (1). Another example with this combination of elements is provided in (5):

- (5) *Pour son dessert, Marie a cueilli des fraises en 10*
 for her dessert Marie has picked PA.PL strawberries in 10
minutes.
 minutes
 'For her dessert, Marie picked some strawberries in 10 minutes.'

In (5), as in (4), the *des*-complement cooccurs with the *en*-adverbial in a grammatical sentence, a pattern also found (and sometimes even preferred in some varieties) in Italian and Italo-Romance (see Cardinaletti and Giusti 2016b, 2018; Giusti, this volume).

In addition to the temporal *in*-adverbial, several diagnostics can be used to show that a situation is telic; one of them is the use of the phrase “it took her/him X minutes/hours to ...” (Dowty 1979):

- (6) a. *Avant de sortir, il a fallu 3 minutes à Marie pour manger*
 before of go.out it has needed 3 minutes to Marie for eat
des fraises.
 PA.PL strawberries
 ‘Before going out, it took Marie three minutes to eat some strawberries.’
- b. *Il a fallu 10 minutes à Marie pour cueillir des*
 it has needed 10 minutes to Marie for pick PA.PL
fraises pour son dessert.
 strawberries for her dessert
 ‘It took Marie ten minutes to pick some strawberries for her dessert.’

In (6), *il lui a fallu 3/10 minutes ...*, which is the French equivalent of “it took her X minutes ...”, is grammatical. This shows that the eventualities of the tested sentences, namely (4) and (5), are telic and, hence, that *des*-NPs may occur in such contexts. French data of this type are not or little discussed in the literature, at least to the best of our knowledge, but need to be explained.⁴ In her work on the aspectual implications of *des*-NPs and other plural indefinites, De Swart (2006), for instance, does not mention such examples.

To account for the acceptability of (4) and (5), one possibility would be to treat the complement *des fraises* on a par with *some strawberries* in English rather than with the bare plural *strawberries* as illustrated in (3): indeed, *some*-NPs may cooccur with the temporal *in*-adverbial, like *des fraises* in (4) and (5). Consider (7):

- (7) *Mary ate some strawberries in half an hour/?for half an hour.*

4 This may depend on the variety of French. The speakers of Swiss French we consulted accept such examples, but judgements may differ (a French colleague does not find these examples completely acceptable).

In (7), the *for*-adverbial is not fully acceptable, in contrast to the *in*-adverbial, showing that the situation is telic. The above discussion thus suggests that the *des*-complement in (1) is analogous to a bare plural in English as both occur in an atelic situation, whereas the *des*-complement in (4) is analogous to a *some*-NP as they both occur in a telic situation. This observation does, however, not explain what exactly affects the (a)telicity of the situation in these examples.

In English, the complements *strawberries* and *some strawberries* in (3) and (7), respectively, clearly differ in that the former is a bare noun, in contrast to the latter. It could thus be argued that it is this difference that has an effect on the (a)telicity of the situation (Verkuyl 1972, a.o.). However, how this “distinctive property” should be formulated is not an easy matter. The idea may be that *strawberries* is “unbounded”, hence incompatible with telicity, whereas *some strawberries* is “bounded”, hence incompatible with atelicity (Verkuyl 1993). Still, in what sense these nominals are (un)bounded is unclear: as evoked above, (a)telicity may be related to various characteristics of a nominal phrase such as the oppositions singular/plural, mass/count, or individuated/non-individuated reference. Furthermore, whatever the explanation is for English, it is not obvious that it extends to French, especially since the constituents *des fraises* in (1) and *des fraises* in (4) are formally identical.

The aim of this paper is to determine what distinguishes the two *des*-complements in (1) and (4) in terms of interpretation and how this difference impacts the telicity of the situation. To do so, we will examine different features of *des*-complements that could lead to telicity and systematically exclude the ones that are not decisive. More precisely, we will evaluate grammatical number and (in)definiteness (Verkuyl 1972), the role of quantitative expressions in the complement (Verkuyl 1972, 1993; Rothstein 2008; Borer 2005) since *des*-NPs are generally associated to an “undetermined” quantity (Milner 1978, a.o.), the notion of quantization often related to the complement in a telic situation, in opposition to cumulative reference (Krifka 1989, 1992), and the mass/count distinction (Bach 1986; Doetjes 1997) in connection to the presence of atoms in the denotation of the complement, before turning to specificity. What we will propose is that the *des*-complements found in telic situations are bounded because they involve a quantity that is known and that this “knowledge” can be formalized in terms of specificity; more precisely we will show that the referent of such specific indefinites can be identified via “referential anchoring” (see Von Stechow 2002a, 2002b, 2011).

This paper is organized as follows. In Section 2, we define the notions we are interested in and report the theoretical background on which we will build

our analysis: in Section 2.1, we present our conception of aspect and (a)telicity and, in Section 2.2, the nominal properties that could affect the (a)telicity of the situation. In Section 3, we develop our analysis, first eliminating the nominal features that cannot be responsible for the telicity of the situation in which a *des*-complement occurs (Section 3.1), and then showing that what distinguishes *des fraises* in (1) from *des fraises* in (4) is specificity, and more precisely “epistemic specificity”. Our claim is that the specific interpretation of these complements is due to a quantity that is known by the subject and that makes their reference quantized (Krifka 1989, 1992). This quantized reference leads to the telicity of the eventuality. Section 4 concludes the paper.

2 Theoretical Background

In this section, we set the scene for our analysis. Since different definitions of aspect and (a)telicity can be found in the incredibly wide literature on the topic, we first define the notions we are adopting, reporting the approaches on which we will build our analysis. In Section 2.1, we clarify what we mean by “aspect” and “(a)telicity”. In Section 2.2, we turn to the role of “quantity” (or absence thereof), that is, the presence/absence of a quantity expression in the nominal phrase, “quantization”, “countability” and “atomicity”, and “specificity” in the difference in telicity observed in Section 1.

2.1 *Aspect and (A)telicity*

Aspect pertains to “different ways of viewing the internal temporal constitution of a situation” (Comrie 1976, 35). Aspect interacts with modality, tense, and argument structure, and is related to the lexicon-syntax interface but also to the syntax-semantics interface. In linguistics, it often refers to two “domains”: the inner/lexical/situation aspect and the outer/grammatical/view point aspect.⁵ The former “focuses on the inherent aspectual properties of the *situations* expressed by lexical verbs (i.e. verb constellations consisting of verbs and their complements)” (Dickey 2016, 339, *italics ours*). Inner aspect is not affected by prospective, (im)perfective and progressive meaning, in contrast to outer/grammatical/view point aspect which involves grammatical categories, often marked by grammatical morphemes. Since in this paper we are mainly interested in the relation between a lexical verb and its complement, we will use the term “situation” (Smith 1997; Dickey 2016) to describe the phenomenon

5 For inner and outer aspect, see Travis 1991. For situation and viewpoint aspect, see Smith 1991.

under discussion. In the next section, we will see, however, that “eventuality description” (or eventuality) is more adequate.

One classification of situation types (also called event classes) widely adopted in the literature is Vendler’s (1957; cf. also Kenny 1963; Dowty 1979). It is based on two diagnostics, namely the possibility for the verb to occur in the progressive and the use of *in*-adverbials to express completion, in other words, telicity. These diagnostics reflect the temporal properties of a situation, that is, whether a situation is durative, dynamic and telic, and result in four types of situations: states, activities, accomplishments, and achievements.⁶ A durative situation has extension in time, whereas a non-durative one does not. A dynamic situation involves the expenditure of energy that results in a change/motion. This change can be defined in terms of heterogeneity in the situation: the situation is not identical from moment to moment. In contrast, homogeneous situations have uniform parts. As for telic situations, they involve an endpoint: the idea is that a predicate (and its complement) expresses a “sense of boundedness”/completion in itself, “by its own lexical meaning” (Verkuyl et al. 2004, 236).

Simplifying the formalization, we can say that states are [-Change] and [+Duration]; activities are [+Change] and [+Duration]; accomplishments are also [+Change] and [+Duration]; achievements are [+Change] and [-Duration]. What distinguishes activities from accomplishments is the property [+/- Telicity] since the former are atelic (*John pushed a trolley*) and the latter telic (*John ate an apple*). Accomplishments are activities leading to a finishing point with a clear change of state: for instance, the situation in *John ate an apple* is finished when the apple is eaten. Since states have no finishing point or natural limitation, they are atelic (*John knows Mary*). As for achievements, they represent transitions between states. For instance, in *John recognized Mary*, there is a “mental switch” when John remembers Mary. The event is over as soon as the result state is established. This means that achievements are telic. In this paper, we will use the terms “(a)telicity” to refer to situations and “(un)boundedness” for nominal phrases.

The above information on the four types of situations is summarized in (8):

(8) a. State	[- Change]	[+ Duration]	[- Telicity]
b. Activity	[+ Change]	[+ Duration]	[- Telicity]
c. Accomplishment	[+ Change]	[+ Duration]	[+ Telicity]
d. Achievement	[+ Change]	[- Duration]	[+ Telicity]

6 See footnote 10 for details on the diagnostic of temporal adverbials.

One way to demonstrate the differences in telicity among the four event categories discussed above is to use *in*- and *for*-temporal adverbials (i.e. *en*- and *pendant*-adverbials in French), as already mentioned: the former modify telic situations whereas the latter target atelic situations. Since *in*-adverbials can be used in situations denoting accomplishments (9a) and achievements (9b), but not with states (9c) and activities (9d), it shows that the situations in the former two are telic, in contrast with the ones in the latter two.⁷ This is corroborated by the use of *for*-adverbials modifying atelic situations: they may occur with states (9c) and activities (9d), but not with accomplishments (9a) and achievements (9b):

- (9) a. *John ate an apple in 10 minutes / *for 10 minutes.*
- b. *John recognized Mary in 10 seconds / *for 10 seconds.*
- c. *John has known Mary *in 10 years / for 10 years.*
- d. *John pushed a trolley *in 10 minutes / for 10 minutes.*

In (9a), *in 10 minutes* indicates the duration of the event. In (9b), *in 10 seconds* refers to the time which elapsed before the change of state. With activities (9d), the *in*-adverbial is sometimes accepted, although it is not the preferred reading, but the situation is then an accomplishment. This is what examples (1) and (4) with the complement *des fraises* '(some) strawberries' illustrate: (1) describes an activity whereas (4) describes an accomplishment, and what distinguishes them is their (a)telicity (see (8b–c)). Since (1) and (4) differ minimally (*Marie (...) a mangé des fraises*) in that they have the same verb form and the same subject, the complement of the verb seems to play a crucial role in the (a)telicity of the situation, an issue discussed in the literature since the 70s (Verkuyl 1972, 1993; Krifka 1989, 1992; Filip 2000; Rothstein 2008).

Verkuyl's (1972, 1993) approach is compositional as it formalizes the relation between the properties of a predicate and its arguments (cf. De Swart 2006, Section 2.2, for a concise summary). Crucially, for Verkuyl, the (a)telicity of a situation does not concern the lexical verb and its complement(s) only; the subject should also be considered (1993, 14). Verkuyl (1972) argues that the telicity of an English tenseless sentence like *Chantal write a letter* is due to the boundedness (see below) of *Chantal* and *a letter*, an idea that also applies to French. Consequently, telicity is "a property of tenseless predication" (Verkuyl

7 Note that a repair reading is available if the adverbial is anchored to the onset of the situation and does not modify the duration of the situation: with such interpretations, the *in*-adverbial can be accepted.

et al. 2004, 236). As for event classes, Verkuyl adopts a system with three categories, namely states, processes, and events (Comrie 1976; Bach 1986, 241). In this classification, states correspond to Vendler's states; processes more or less correspond to Vendler's activities, and events to Vendler's accomplishments and achievements. What distinguishes events from processes and states is that events represent a discrete unit thanks to the interplay between the temporal information provided by the verb and the arguments. Examples (4) and (5) thus represent events in Verkuyl's terminology.

To formalize his approach, Verkuyl (1972, 1993) postulates two parameters, namely the dynamicity (i.e. non-stative status) associated with the verb (parameter A) and the "specified quantity" tied up with the arguments of the verb, that is, complements and subjects, and synonymous to boundedness when the setting is positive (parameter B, which represents the feature [+/- SQA], for +/- specified quantity);⁸ see Section 2.2.1. A positive setting of the feature B (i.e. there is a specified quantity) on an argument implies that the semantic object denoted is a discrete object or a discrete portion of substance (Verkuyl et al. 2004, 239). Feature B is set negatively when there is no "specified quantity", for example with mass nouns in the singular or bare plurals in English (as in (2), which contains a bare plural argument). A telic situation results from positive settings for the features involved (A and B).⁹ If the verb, the complement or the subject have a feature set negatively, atelicity arises. For instance, a stative sentence like *Mary knows the problem* is necessarily atelic because the predicate *know* is stative, and therefore -A, a negative setting which leads to atelicity (whatever the setting of the B feature of the complement). The example *Mary ate two apples* is telic because the predicate *eat* is dynamic (i.e. non-stative) and therefore +A, and because the complement *two apples* is +B, as it represents a specified quantity, namely *two*. Although the analysis was developed for Germanic languages, it also holds for French (Verkuyl et al. 2004, 238).

A simplified version of this formalism is reported in (10): since the role of the subject is not what we are focusing on, all the subjects in (10) are marked +B.

8 More precisely, the feature [+/- SQA] stands for "referring to a specified quantity of A" where A represents the common noun (note that A in this definition differs from the feature [+/-A] mentioned in the text and in (10)).

9 Verkuyl uses the terminology durative vs. terminative for atelic and telic respectively. For consistency, we will stick to the latter two. In his 1993 work, Verkuyl adds one more element: some sentences contain a non-overt participant which can affect telicity. The reason is that some transitive verbs like *move* may combine with a *for*-adverbial although their object represents a "specified quantity" as in *John moved the car for three hours/?in three hours*. This extra participant provides a specified quantity of moving like *to the park or away*.

For the examples under discussion, in particular (1), (4) and (5), this positive setting is justified, since the subjects are proper names, which are +B.

(10)		NP _{subject}	V	NP _{complement}	
a.	State	+B	- A	-/+ B	→ atelic
b.	Process	+B	+ A	- B	→ atelic
c.	Event	+B	+ A	+B	→ telic

The combinations of settings for A and B that are of interest to us are the ones in (10b) and (10c), namely processes (activities) and events (accomplishments/achievements), since what determines (a)telicity here is the different status of the complement: in (10b), the complement is -B (i.e. there is no specified quantity), whereas in (10c), it is +B (i.e. there is a specified quantity). This issue is particularly intriguing for the complements *des fraises* in examples (1) and (4), as these complements are formally identical.

In the approach described above, example (1), which represents a process, can be accounted for if we assume that the *des*-complement is -B (i.e. [-SQA]): the eating process in (1) is not stopped by the [-SQA] information provided by *des fraises*. In other words, nothing delimits the dynamicity expressed by the verb *manger*. Therefore, the sentence has to be interpreted as atelic. A similar example with the predicate *écrire* ‘write’ and the complement *des lettres* ‘letters’ is discussed in Verkuyl et al. (2004, 239). This example is ungrammatical when an *en* / ‘in’-adverbial is added (ibid, 240):

- (11) **Chantal a écrit des lettres en quarante minutes.*
Chantal has written PA.PL letters in fourty minutes

In (11), as in (1), the *passé composé* is used (*a écrit* ‘has written’), the subject is a proper name (*Chantal*) and the *en* / ‘in’-adverbial is ungrammatical.¹⁰ The rea-

10 The *in-* / *for*-temporal adverbials are not *responsible* for the (a)telicity of the eventuality, contrary to what a reviewer suggested to us. Adopting Verkuyl et al. (2004, based on De Swart 1998), we assume that *en-* and *pendant*-adverbials modify the eventuality description in (i) (Verkuyl et al. 2004, 237):
(i) PAST(ASP(Eventuality description))
In (i), ASP is an aspectual operator (i.e. grammatical aspect) which modifies the aspectual information expressed by the “eventuality description” (i.e. by the predicate and its

son is that the internal argument *des lettres* is [-SQA] and, therefore, does not restrict the verb. Whether a *des*-complement and an *en*/'in'-adverbial can cooccur (as in (4)) or not is not mentioned in Verkuyl et al. (2004), although they focus on French, in contrast to Verkuyl in his earlier work. If a *des*-complement and an *en*/'in'-adverbial combine, it implies that the complement in such examples is [+SQA] and delimits the dynamicity of the verb. However, assuming that *des fraises* in (1) is [-SQA] whereas *des fraises* in (4) is [+SQA] is not very helpful: we still would like to know what defines a “specified quantity” and what the “specified quantity” of strawberry is in (4). In other words, the label [+/-SQA] is not self-explanatory; it is further discussed in the next section.

2.2 The Properties of Nominal Complements in (A)telic Sentences

2.2.1 Quantification, Quantities, and Quantization

One aim of Verkuyl's (1972, 1993) work was to determine whether the intuitive notion of “specified quantity” can be captured by the Theory of Generalized Quantifiers (Barwise and Cooper 1981; Keenan and Stavi 1986). In this approach, set theory is the foundation of semantic interpretation, and determiners denote relations between two sets, that is, the set denoted by the verb (phrase) and the set denoted by the noun. For instance, *Three (boy) (dance)* is true if and only if the intersection of the set denoted by *dance* and the set denoted by *boy* has three elements. The semantic contribution of *three* is a cardinality condition imposed on the intersection between the noun denotation and the verb (phrase) denotation. It is this cardinality information which determines the setting of the feature [+/-SQA] introduced in the previous section.

Although Generalized Quantifier theory has been widely adopted and developed in the last thirty years (cf. Westerståhl 2016), it is not unproblematic. We will, however, not review the literature evaluating this approach (cf. e.g., Löbner 2016; Szabolcsi 2016, 325 ff.), but would like to point out that French nominals with a “partitive article” like the plural *des* have been convincingly analyzed as noun phrases that can denote properties (Dobrovie-Sorin and

arguments), like PERF(ective)/IMP(erfective) in Slavic languages for instance, and PAST represents tense. In this analysis, *en/in*-adverbials can only modify the “event description” if it is an event, whereas *pendant/for*-adverbials can only modify the “event description” if it is a state/process. Informally, the temporal adverbials, modify the “event description” once this description is already complete. These adverbials are therefore *diagnostics* that can be used to test if an eventuality is telic or not, and not the cause of the (a)telic interpretation (De Swart 2006; Guéron 2006). The *passé composé*, (i.e. the verb forms in (1) and (4)), composed of the auxiliary *avoir* ‘have’ and the past participle (but different from the English present perfect; cf. the comparative discussion in Molendijk et al. 2004, 299 ff.) is a tense (not an aspect) (Vet 1992, 1999; Martin 1971; De Swart 1998).

Laca 2003) following work by McNally (1995/2004) and Van Geenhoven (1998). Some authors propose that *des*-NPs can be of three different semantic types: they can denote individuals $\langle e \rangle$, be quantificational expressions $\langle \langle e, t \rangle t \rangle$ and property-denoting nominals $\langle e, t \rangle$ (Dobrovie-Sorin and Beyssade 2004, 2012; Ihsane 2008), a position adopted here (see Dobrovie-Sorin, this volume, for an analysis of *des*-NPs as weak existential quantifiers in argument positions). This view is not compatible with the Generalized Quantifier theory but subsumes Kamp's (1981) and Heim's (1982) analyses of indefinites as individual-denoting expressions, on a par with definite noun phrases. In our view, indefinites thus introduce a new individual in the discourse or do not refer (which allows for the quantificational and the property-denoting interpretations), whereas definites refer to an individual already mentioned in the discourse (cf. Brasoveanu and Farkas 2016 for an overview of indefinites). In her classification of French determiners, De Swart (2006) analyzes *des* as indefinite (cf. also Bosveld-de Smet 2004, 43; Corblin et al. 2004, 7), as opposed to quantifying elements. As mentioned above, we do however not oppose indefiniteness and quantification.¹¹

Since not all nominals are quantificational (or quantifying; we will use both terms interchangeably) in our view, we assume that there is a difference between “quantification” and “quantity”: quantification involves operators like *all*, *each*, *every*, whereas quantity is specified by numerals and vague quantity specifications (e.g., *several*, *many*, *much*) (Löbner 2016, 283–284). Since quantificational expressions do not pick out a referent, proportional determiners like *most* also pertain to quantification. The notions of “quantity” and “quantification” are relevant to our discussion because the eventualities with complements containing quantitative expressions and quantifiers, on a par with *des fraises* in (4), are telic as shown in (12):

(12) a.	<i>Mary ate</i>	<i>some strawberries</i>	<i>in 5 minutes</i> / <i>*for 5 minutes.</i>
b.	<i>Mary ate</i>	<i>a lot of strawberries</i>	<i>in 5 minutes</i> / <i>*for 5 minutes.</i>
c.	<i>Mary ate</i>	<i>more than three strawberries</i>	<i>in 5 minutes</i> / <i>*for 5 minutes.</i>
d.	<i>Mary ate</i>	<i>most strawberries</i>	<i>in 5 minutes</i> / <i>*for 5 minutes.</i>
e.	<i>Mary ate</i>	<i>all the strawberries</i>	<i>in 5 minutes</i> / <i>*for 5 minutes.</i>
f.	<i>Mary ate</i>	<i>20 strawberries</i>	<i>in 5 minutes</i> / <i>*for 5 minutes</i>

11 Corblin et al. (2004) show that quantifying noun phrases and indefinites have different properties: indefinite determiners like *un* ‘a’ and numerals are symmetric, whereas quantifiers are not; the scope of indefinites is free, whereas the scope of quantifiers is clause-bound; quantifying noun phrases are inherently distributive, whereas indefinites are not (2004, 13–15). For a discussion of quantifiers and quantities in relation to aspect in Finnish, see Huumo (2020).

All the examples in (12) are fine with an *in*-adverbial but not with a *for*-adverbial; they are therefore telic.

As *des*-NPs are generally not quantifying, one question that arises is whether there is a quantity (as defined above) in their structure. This is relevant because some scholars claim that *any* expression of quantity in the object complement is sufficient for an accomplishment predicate to count as telic (Rothstein 2008). Clearly, there is no overt quantitative expression contained in the *des*-NPs under investigation, but there could be an implicit one (cf. Seržant 2014 on Lithuanian). This is what traditional works imply since they describe nominals with a “partitive article” as involving an “undetermined” quantity (*quantité indéterminée*, Milner 1978, 32; a.o.) or as having “a highly indeterminate sense ... as to the quantity of the entities referred to” (Bosveld-de Smet 2004, 42). That *des*-NPs comprise a “ $\emptyset$ ” quantity in their representation is what Milner (1978, 30) proposes. He treats this quantity on a par with numerals and considers that it designates *un nombre indéterminé d’individus* ‘an undetermined number of individuals’ (ibid). That nominals with a “partitive article” involve a quantity is supported by the fact that they allow modification by adverbials implying some quantity. Consider (13), from Bosveld-de Smet (2004, 46):

- (13) *Ces pommiers donnent des fruits à profusion.*
 these apple.trees give PA.PL fruits in abundance
 ‘These apple trees give fruit in abundance.’

In (13), *des fruits* ‘fruit.PL’ cooccurs with the adverbial *à profusion* ‘in abundance’, a quantity-involving constituent; since such adverbials are used when there is a quantity expressed, it supports the analysis of *des*-complements as nominals containing a quantity; this is because there is no other quantity expression in the example (Dobrovie-Sorin, in this volume, postulates a ‘SOME quantity/plurality’ in the structure of *des*-phrases; cf. also Giusti, this volume, for a discussion of indefinites involving a small quantity in Italian and Italo-Romance). Examples like (13) represent evidence for the presence of a quantity expression in the *des*-NPs and cannot be ignored. The question that arises is whether this “quantitative interpretation” of *des*-NPs will allow us to differentiate the *des*-complement in (1) from the *des*-complement in (4) (see Section 3).

Another way of describing the importance of the complement in the (a)telicity of the eventuality, often reported in the literature, is Krifka’s approach (Krifka 1989, 1992). Krifka (1992) aims at providing an analysis of the characteristics of nominals that affect the properties of eventualities and explores a mechanism of mapping between eventualities and their arguments.

He captures the relations between arguments and eventuality in terms of part-whole (i.e. mereological) relations. He builds his analysis on the part-whole properties of predicates which he relates to the way in which they establish reference. Two of those properties are “cumulativity” (i.e. predicate preservation under sum) and “quantization” (the predicate of the whole does not hold for any of its parts). They are defined below (quoted from Rothstein 2008, her examples (12) and (11), respectively):

(14) a. A predicate *X* is **cumulative** iff:

$$\exists e \exists e' [X(e) \wedge X(e') \wedge \neg e \subseteq e' \wedge \forall e \forall e' [X(e) \wedge X(e') \wedge R(e, e') \rightarrow X(e \cup e')]]$$

“*P* is cumulative if, whenever *e* and *e'* are in *X* and *e* is not part of *e'*, the sum of *e* and *e'* is also in *P*.”

b. A predicate *X* is **quantized** iff:

$$\forall x \forall y [X(x) \wedge X(y) \rightarrow [x \subseteq y \rightarrow x = y]]$$

“A predicate *P* is quantized if, whenever *x* is in *P*, no proper part of *x* is also in *P*.”

Both cumulative and quantized reference are relevant for the (a)telicity of the eventuality: when the predicate of an argument has cumulative reference, the eventuality is cumulative as well, which leads to atelicity; when the predicate of an argument has quantized reference, the eventuality is quantized, which leads to telicity. The meaning of determiners and quantifiers plays a crucial role in determining the reference type of a nominal expression. For instance, bare mass nouns and bare plurals are never quantized but have cumulative reference: since *strawberries* plus *strawberries* is *strawberries*, bare plurals in English have cumulative reference (idem for bare mass nouns). Their reference is also non-quantized since there are proper subparts of *strawberries* that are also *strawberries* (in contrast to *20 strawberries*, since no proper subpart of *20 strawberries* is *20 strawberries*). A problem for the notion of quantization is that some “determiners” (used in a broad sense) contained in the complement lead to a telic reading of the predicate although they are *not* quantized according to the definition provided above. It is the case of *some*, as illustrated in (7)/(12a), or *more than x*, for instance: the reference of the nominal expression *some strawberries* is not quantized because there are subparts of *some strawberries* that are *some strawberries*. Whether the notions of quantized and cumulative reference will allow us to distinguish between *des fraises* in (1) from *des fraises* in (4) is discussed in Section 3.

In this section we have defined several properties of nominal phrases that could play a role in the (a)telicity of an eventuality, in particular “quantity” and

“quantization”. In the next section, we turn to additional properties that may be relevant to account for the data under study here.

2.2.2 Number, Atomicity, and Specificity

Another feature of nominal phrases that could impact the (a)telicity of the eventuality is number, that is, the opposition singular/plural. However, that the number of the complement is not decisive for this issue has been shown by Verkuyl (1993, 71 ff.), who provides the English examples in (15) to support this observation (French counterparts ours; *in*- and *for*-adverbials our addition):

- (15) a. *Judith ate those three sandwiches in 10 minutes / *for 10 minutes.*
 Judith a mangé ces trois sandwiches en 10 minutes / *pendant 10 minutes.
- b. *Judith ate three sandwiches in 10 minutes / *for 10 minutes.*
 Judith a mangé trois sandwiches en 10 minutes / *pendant 10 minutes.
- c. *Judith ate sandwiches *in 10 minutes / for 10 minutes.*
 Judith a mangé des sandwiches *en 10 minutes / pendant 10 minutes.
- d. *Judith ate that sandwich in 10 minutes / *for 10 minutes.*
 Judith a mangé ce sandwich en 10 minutes / *pendant 10 minutes.
- e. *Judith ate a slice of bread in 10 minutes / *for 10 minutes.*
 Judith a mangé une tranche de pain en 10 minutes / *pendant 10 minutes.

In (15a–c), the complements are all plural; however, only (15a) and (15b) are telic, in contrast to (15c). Furthermore, sentences (15a), (15b), (15d) and (15e) are telic; however, the complements in (15a) and (15b) are plural whereas the ones in (15d) and (15e) are singular. These observations, originally based on the English examples, extend to the French counterparts provided, suggesting that whether the complement is singular, or plural does not determine the (a)telicity of the eventuality (but see Section 3.1).¹²

The examples in (15) further show that the (in)definiteness of the complement does not determine the (a)telicity of the eventuality. Verkuyl (1993) draws this conclusion for English: all the examples are telic, since they are grammatical with an *in*-adverbial but not with a *for*-adverbial, except for (15c). Yet, *those three sandwiches* in (15a) and *that sandwich* in (15d) are definite, whereas *three sandwiches* in (15b) and *a slice of bread* in (15e) are indefinite. The same observations extend to the French counterparts of (15a–e). This means that the

¹² We assume that *des*-NPs are plural: see the discussion and the references in De Swart 2006.

(in)definiteness of the complement is not the property affecting the (a)telicity of the eventualities of those examples.

A question that arises is whether specificity, a semantic-pragmatic notion often associated to (in)definiteness, could play a role in the (a)telicity of the eventuality (Baker 1966; Farkas 2002; Von Heusinger 2002a). Although specificity may affect both definiteness and indefiniteness, it is more often linked to indefinite noun phrases than to definite ones (see Von Heusinger 2011 and the references therein). According to Von Heusinger (2002a, 2002b, 2003, 2011), specificity is a multi-dimensional concept associated to many notions, among which scope, epistemic reference, and partitive contrasts. This justifies the distinction between seven types of specificity, such as scopal specificity, epistemic specificity, and partitive specificity, to mention but three (Von Heusinger 2011). The core notion of all seven types of specificity is “referential anchoring” which means that

[t]he referent of a specific indefinite is functionally dependent on some discourse participant or on another expression in the sentence. The anchor must be familiar to speaker and hearer, while the content of the anchoring function must be unfamiliar to the hearer (to distinguish specific indefinites from definites).

VON HEUSINGER 2011, 1054

The function postulated, $f(anchor) = referent$, is a function from the anchor to the referent, where the anchor is not necessarily the speaker; it can be other attitude holders, like the subject (as in one reading of *Paula believes that Bill talked to an important politician*, where the anchor can be *Paula*; Von Heusinger 2011, 1048), or a variable bound by a quantifier, allowing systematic co-variation with the anchor/binder (as in *Every husband had forgotten a certain date—his wife’s birthday*, where the date covaries with husband; Von Heusinger 2011, 1048). This function captures the condition that the referent of the specific indefinite must be a unique individual. In the example *Every husband had forgotten a certain date—his wife’s birthday*, it concerns the assignment between the quantified noun (*husbands*) and the indefinite (*date*) rather than the referential intention of the husband. This analysis is analogous to Fodor and Sag’s (1982) but with some refinements, such as the flexibility around the attitude holder.

In our discussion, we will focus on one type of specificity, namely epistemic specificity illustrated in (16), a translation of Von Heusinger’s examples (3a)–(3b) (2011, 1027), with *des*-NPs instead of singular indefinites and some minor changes:

- (16) a. *Des étudiants du cours de syntaxe ont triché à l'examen. Je les connais: c'est Paul Dupond et Marie Schmidt.*
 PA.PL students of.the course of syntax have cheated at the exam I them know this is Paul Dupond and Marie Schmidt
 'Some students of the syntax class cheated in the exam. I know them. It is ...'
- b. *Des étudiants du cours de syntaxe ont triché à l'examen mais je ne sais pas qui c'est.*
 PA.PL students of.the course of syntax have cheated at the exam but I NEG know not who it is
 'Some students of the syntax class cheated in the exam. But I don't know who it is.'

In (16), the contrast is between the speaker's knowledge about the referent of *des étudiants du cours de syntaxe* 'some students of the syntax class' and the speaker's ignorance.¹³ This is why it is a case of epistemic specificity. That this notion plays a role in our puzzle will be shown in Section 3.

Specificity can be related to the notion of individuation (cf. e.g., Ihsane 2008, 204) and hence to the mass/count distinction: indeed, we assume that mass nouns do not have a set of atoms representing minimal entities in their extension (Bunt's 1985 homogeneity hypothesis), whereas count nouns make atomic denotations available (cf. Link 1983; Chierchia 1998, 2000; Rothstein 2010; Löbner 2016 who considers the mass/count distinction as conceptual and count concepts as integrative, p. 285; but see Rothstein 2010 for a different view, and Doetjes 2012 for an overview of different languages), although it is certainly a simplification to treat the opposition mass/count as binary (Grimm 2012; Lauwers 2019). In other words, we assume that count nouns, in contrast to mass nouns, are atomic, realizing that the complete picture is more complex. This

13 Note that *des*-subjects, like indefinite subjects in general (Givón 1976), are often not possible or do not sound very natural, especially in spoken French where the *il y a* ... 'there is' construction is used (Karssenbergh 2016; Ihsane 2018, a.o.; see Martin, Carvalho and Alexiadou, this volume, for an analysis of bare subjects in Brazilian Portuguese). The lexical material *du cours de syntaxe* 'in the syntax class' specifying *des étudiants* 'students' contributes to the acceptability of the *des*-subject (see footnote 18). In Francoprovençal, the counterparts of *des*-NPs are impossible as subjects (Ihsane 2018; Stark and Gerards, this volume).

is relevant to our discussion because the mass/count distinction is also often associated to (a)telicity (Mourelatos 1978; Hoepelman and Rohrer 1980; Bach 1986; Krifka 1989; Borer 2005). Consider (17):

- (17) a. *John wrote poetry for an hour / *in an hour.*
 b. *John wrote a poem *for an hour / in an hour.*

In (17a), the eventuality is atelic as the grammaticality of the *for*-adverbial shows; in (17b), the eventuality is telic as the grammaticality of the *in*-adverbial shows. The crucial difference between the two examples is that in the former, the complement is a mass noun (*poetry*), whereas in the latter it is a count noun (*a poem*), thus suggesting that the mass/count opposition should be taken into account in the analysis of (a)telicity. The same observation holds for French, where the mass noun phrase *de la poésie* 'poetry' and the count one *un poème* 'a poem' can replace *poetry* and *a poem*, respectively, without changing the grammaticality judgements.

Whether the above-mentioned aspects of the interpretation of the *des*-NPs under discussion shed light on our data is discussed in the next section.

3 Analysis

Examples (1) and (4), representing the puzzle we are examining, are repeated below as (18) and (19), respectively.

- (18) *Marie a mangé des fraises *en une demi-heure / pendant*
 Marie has eaten PA.PL strawberries *in a half-hour / for
 une demi-heure.
 a half-hour
 'Marie ate strawberries for half an hour.'

- (19) [Context: Marie is in a hurry because she has an appointment. Since she is hungry, she eats the strawberries on the table very quickly]:
 Marie était pressée et a mangé des fraises en 5
 Marie was in.a.hurry and has eaten PA.PL strawberries in 5
 minutes.
 minutes
 'Marie was in a hurry and ate some strawberries in 5 minutes.'

In this section, we develop an account for this contrast, building on the notions introduced in Section 2. We first review the properties of the *des*-complements which are not decisive in the differences in telicity illustrated in (1)/(18) and (4)/(19) (Section 3.1) before turning to our proposal which is that epistemic specificity plays a crucial role in this difference (Section 3.2).

3.1 *Number, Atomicity and Quantity*

In Section 2.2.2, we mentioned that number is generally considered not to play a role in the (a)telicity of an eventuality. Whether this conclusion is correct or not for French should however be tested with examples corresponding to (15c) and (19) but containing a complement introduced by the singular *du/de la*:¹⁴ if the grammaticality judgements for such examples were different from the judgements for the data with a plural complement, it could be that the number of the complement plays a role in the (a)telicity of the eventuality, after all. The problem with this is that the singular counterparts of *des*, that is, *du* and *de la*, are also mass, in contrast to *des* which occurs with count nouns, except in a few rare cases like *des épinards* 'spinach'. This means that the two sets of examples—the plural ones, which, in our discussion, are count (*une fraise-des fraises* 'a/one strawberry-some strawberries'), and the singular ones with a mass determiner—differ in at least two dimensions: the number of the complement and the mass/count distinction. Comparing these two sets would therefore not allow us to determine which of these properties (or a combination of the two) is responsible for the observed difference in (a)telicity.

Since our aim here is to solve the puzzle in (18) and (19) and not to study (a)telicity in general, we will concentrate on the complements in those examples: since *des fraises* in (18) and *des fraises* in (19) are both plural and count, we conclude that, in the contexts under discussion, the number of the complement and the mass/count distinction cannot explain the difference in the (a)telicity of the eventuality observed. In the same vein, since *des fraises* in (18) and *des fraises* in (19) are both indefinite (Bosveld-de Smet 2004, 42; see Section 2.2.1 for some references), (in)definiteness is not relevant to solve our puzzle.

In Section 2.2.2, we associated the count interpretation to atomicity. Whether the denotation of *des fraises* in (18) and in (19) contains atoms or not can be tested with examples that isolate one atom:

14 We thank a reviewer for this remark.

- (20) *Marie a mangé des fraises pendant une demi-heure et*
 Marie has eaten PA.PL strawberries for a half-hour and
a trouvé la plus grosse délicieuse.
 has found the more big delicious
 'Marie ate strawberries for half an hour and found the biggest one delicious.'
- (21) [Context: Mary is in a hurry because she has an appointment. Since she is hungry, she eats the strawberries on the table very quickly]:
Marie était pressée. Elle a mangé des fraises en 5
 Marie was in.a.hurry she has eaten PA.PL strawberries in 5
minutes et a trouvé la plus grosse délicieuse.
 minutes and has found the more big delicious
 'Marie was in a hurry. She ate some strawberries in five minutes and found the biggest one delicious.'

In (20) and (21), the sentence [*elle*] *a trouvé la plus grosse délicieuse* '[she] found the biggest one delicious' describes one of the strawberries that Marie ate. In both (20) and (21), it is a natural continuation of the first sentence of the example, showing that *des fraises* is atomic in both (20) and (21), and, therefore that, in our examples, the atomicity of the reference of the complement is not responsible for our puzzle.¹⁵

Let us now turn to the property of "quantity" (as defined in Section 2.2.1) since the presence of a quantity expression in the complement of a sentence may influence the telicity of the eventuality. What is less clear is whether a *non-overt* quantity expression also has such an impact. In connection to the data under investigation, the question is whether *des fraises* in (18) and *des fraises* in (19) differ in their involving a quantity: if *des fraises* in (18) did not contain an implicit quantity expression but *des fraises* in (19) did, the presence vs. absence of such a quantity expression in the complement could explain the difference in telicity of these examples. One way to determine whether a *des*-NP contains

15 A reviewer suggests that this conclusion is not compatible with the property-denoting type, which is (e,t) and does not have individuation. If the *des*-NPs in our examples are not property-denoting, it supports Dobrovie-Sorin's analysis in this volume, in which she proposes that nominals with a "partitive article" in French are not property-denoting in argument positions. If the *des*-complement in (20) did not have atoms in its denotation, the relation between atomicity and countability adopted here would have to be revised.

an implicit quantity expression or not could be to use an overt quantity expression in order to contrast the implicit quantity (Ihsane 2008, 158–159):

- (22) *Marie a mangé des fraises pendant une demi-heure ; mais Marie has eaten PA.PL strawberries for a half-hour ; but pas beaucoup, en fait, parce qu' elle mangeait très lentement. not a.lot in fact because she was.eating very slowly 'Marie ate strawberries for half an hour, but not a lot, in fact, because she ate very slowly.'*
- (23) [Context: Mary is in a hurry because she has an appointment. Since she is hungry, she eats the strawberries on the table very quickly]:
Marie était pressée. Elle a mangé des fraises en 5 Marie was in.a.hurry she has eaten PA.PL strawberries in 5 minutes. Mais pas beaucoup parce que elle n' avait pas le temps. minutes but not a.lot because she NEG had not the time 'Marie was in a hurry. She ate some strawberries in 5 minutes. But not a lot, because she didn't have time.'

In (22) and (23), the use of *mais pas beaucoup* 'but not a lot' aims at giving details about a quantity expression in the sentence preceding it, thus implying that there is a quantity expression in the *des*-complement since there are no other quantities in the sentences. Another way to support the presence of a quantity in (18) and (19) is to add *en quantité* 'in a large amount/quantity' to these examples as observed in Section 2.2.1: *Marie a mangé des fraises en quantité ...* 'Marie ate (some) strawberries in a large quantity'. In the next section, we will propose that the quantity of strawberries in (19) is known to the subject and that this is what differentiates (18) and (19).

We do not think that the quantitative interpretation of the *des*-NPs in (22) and (23) is a conversational implicature (Grice 1989) and thank a reviewer for raising this issue: if it was, the implicit quantity would not be part of the meaning of the nominal constituent, but a pragmatic effect that can be cancelled. If the quantitative interpretation was a conversational implicature, the reasoning would be that *des*-NPs *implicate* a quantity and that this implicature can be cancelled by using "in fact" and "no quantity" (for instance *no/zero strawberry* in our examples). However, this would lead to a contradiction as shown in (24) and (25) and indicated by #:

- (24) #*Marie a mangé des fraises pendant une demi-heure. En Marie has eaten PA.PL strawberries for a half-hour in*

fait, elle a mangé aucune/zéro fraise.

fact she has eaten no/zero strawberry

#‘Marie ate strawberries for half an hour. In fact, she ate no/zero strawberry.’

- (25) [Context: Mary is in a hurry because she has an appointment. Since she is hungry, she eats the strawberries on the table very quickly]:

#Marie était pressée et a mangé des fraises en 5

Marie was in.a.hurry and has eaten PA.PL strawberries in 5 minutes. *En fait, elle a mangé aucune/zéro fraise.*

minutes in fact she has eaten no/zero strawberry

#‘Marie was in a hurry and ate some strawberries in 5 minutes. In fact, she ate no/zero strawberry.’

The above examples show that “a quantity” cannot be cancelled and therefore that the quantitative interpretation is not a conversational implicature.

The above discussion also clearly shows that the complements *des fraises* in (22) and in (23) do not differ in terms of quantity: *mais pas beaucoup* ‘but not many’ and *en quantité* ‘in abundance’ can be added to both (22) and (23), whereas *en fait, ... aucune fraise* ‘in fact, ... no strawberry’ can be added to neither of them. This means that the two complements *des fraises* are similar in that they involve an implicit quantity and, therefore, that this property cannot explain the difference in telicity observed in these examples.

In sum, none of the properties examined in this subsection allow us to solve our puzzle. This is because the *des*-complements under discussion are both indefinite and plural, have individuated reference, and involve an implicit quantity. In the next section, we will show that the reference of the *des*-complements in the telic examples is quantized (as expected but not explained so far) and that specificity plays an important role in the difference in telicity we are investigating.

3.2 *Specificity and Quantization*

The crucial difference between (18) and (19) is that, in the latter, Mary is in a hurry, which limits the number of strawberries she can eat. In the same vein, in (5), the type of dessert Mary will prepare determines the quantity of strawberries she needs. In other words, the quantity of strawberries is “known” in both cases.¹⁶ If this is correct, then (19) is analogous to the example *John swam*

16 The presence of a quantity that is known reminds us of Verkuyl’s (1993) non-overt partic-

in an hour discussed by Dowty (1979, 61):¹⁷ for this example to be acceptable, some contextually given distance (i.e. a quantity of meters) has to be known; otherwise, the *in*-adverbial would not be grammatical. In the same vein, we propose that example (19) is acceptable because the *des*-complement involves a quantity of strawberries that is known, in contrast to the *des*-complement in (18). It is this “known quantity” that is responsible for the boundedness of the complement (see Sections 1 and 2.1)¹⁸ allowing the telic reading (in that sense this quantity would set the [+/-SQA] feature discussed in Section 2.1 on plus). What we would like to capture next is what is meant by “known”. Indeed, this needs to be formalized, and we argue that an analysis in terms of specificity (Section 2.2.2) accounts for this “knowledge”: the fact that Marie knows the quantity of strawberries she ate/picked makes these strawberries specific.

A close examination of (19), with the context “*Mary is in a hurry because she has an appointment. Since she is hungry, she eats the strawberries on the table very quickly*” provided in brackets, may suggest that this example is an illustration of *partitive specificity*, a type of specificity related to familiarity. A constituent may be familiar thanks to presuppositionality or partitivity, for instance (Von Heusinger 2011): since the context provided in brackets in (19) mentions the strawberries, we could conclude that the strawberries that Marie ate are part of this set of already introduced strawberries. However, the preferred interpretation of (19) is not partitive: Marie did not eat some of the strawberries on the table but all of them, suggesting that partitive specificity is not the right notion to account for this example. That (19) is not a case of partitive specificity is supported by the fact that the context in brackets is not necessary to identify the referent of the indefinite complement: (19) is acceptable even if no set of strawberries is mentioned in the context:

ipant affecting telicity. In the example mentioned in footnote 9 (*John moved the car for three hours/?in three hours*), a specified quantity of moving is provided by an extra participant. However, Verkuyl’s example differs from (19) in different ways. In particular, it is unexpectedly fine with a *for*-adverbial, whereas we are discussing complements that are unexpected with *in*-adverbials.

- 17 We are grateful to an anonymous reviewer for this observation, which led us to reorganize some aspects of our analysis and to emphasize the role of this known quantity.
- 18 Bosveld-de Smet (2004) mentions that the semantics of the predicate may have a constraining effect: some *du/des*-subjects may become acceptable when spatio-temporal information is added to the sentence since this information provides spatio-temporal boundaries.

- (26) *Marie était pressée et a mangé des fraises en 5 minutes.*
 Marie was in.a.hurry and has eaten PA.PL strawberries in 5 minutes.
 'Marie was in a hurry and ate some strawberries in 5 minutes.'

Similarly, in (5) repeated as (27), no set of strawberries is introduced in the context, which means that partitive specificity is not at stake:

- (27) *Pour son dessert, Marie a cueilli des fraises en 10 minutes.*
 for her dessert Marie has picked PA.PL strawberries in 10 minutes.
 'For her dessert, Marie picked some strawberries in 10 minutes.'

What we suggest, rather, is that (19)/(26) and (27) are cases of *epistemic specificity* applying to contexts where the "speaker has a referent in mind". However as mentioned in Section 2.2.2, the anchor of the indefinite does not have to be the speaker. It could be the subject of a sentence or another element in the discourse or in a text. To illustrate this, let us consider Von Heusinger's example, from *The Name of the Rose* by Umberto Eco (Von Heusinger 2003, 15):

- (28) [William to Jorge de Burgos about Malachi:] *You probably told him Berengar had been intimate with Severin, and as a reward Severin had given him a book from the Finis Africae.*

In this example, the anchor of the indefinite *a book from the Finis Africae* could, in principle, be the speaker (William), the hearer (Jorge), Malachi, Berengar, or Severin, although the context of the book suggests that it is Berengar (Von Heusinger 2003, 419). In the same vein, we propose that in (19)/(26) and (27) the anchor of the indefinite *des fraises* is *Marie*, the subject of the sentence, who is familiar to both the speaker and the hearer. As for the anchoring function, it can be formulated as "Marie has in mind a set of strawberries whose quantity is known to her because she had little time to eat them as she was in a hurry" for (19)/(26). The same reasoning applies to (27): *des fraises* is anchored by *Marie*, and the anchoring function is "Marie has in mind a set of strawberries, whose number/weight is known to her because it corresponds to the quantity needed for her dessert". In both anchoring functions, the piece of information which is new to the hearer, but known by Marie, is the quantity of strawberries eaten or picked, respectively: this quantity is restricted because Marie was in a hurry or

because the dessert she wants to prepare requires a certain quantity of strawberries. Since what Marie has in mind is a set of strawberries, these strawberries are specific.

As, in (19), the quantity of strawberries is known to Marie, the referent of *des fraises* in this example is bounded, in contrast to the one of *des fraises* in (18). Formally, this means that the reference of the strawberries that are specific is quantized, whereas the reference of the strawberries that are not specific is not quantized (Section 2.2.1). This difference explains why the eventuality in example (18) is atelic (hence the grammaticality of the *for*-adverbial), in contrast to the eventualities in (19)/(26) and (27), which are telic (hence the use of *in*-adverbials). The difference in quantization between the specific and non-specific complements can be explained as follows, starting with *des fraises* (*non-spécifiques*) ‘(non-specific) strawberries’ in (18): if something is *des fraises* (*non-spécifiques*), then some subparts of it will also be *des fraises* (*non-spécifiques*). Hence, the reference of this nominal expression is non-quantized. Since *des fraises* (*non-spécifiques*) ‘strawberries’ plus *des fraises* (*non-spécifiques*) ‘strawberries’ gives *des fraises* (*non-spécifiques*) ‘strawberries’, the reference of *des fraises* (*non-spécifiques*) is cumulative. Accordingly, the non-specific *des fraises* is analogous to the bare plural *strawberries*.¹⁹

The reference of the specific *des fraises* in (19)/(26) and (27) is quantized: when one refers to *des fraises* in these examples, one has in mind the-strawberries-Marie-ate-in-five-minutes-because-she-was-in-a-hurry (known to her but not to the hearer), and, crucially, this implies all of them. If this is correct, then no proper subpart of the-specific-strawberries-Marie-ate-in-five-minutes ... can be the-specific-strawberries-Marie-ate-in-five-minutes ... The reference of *des fraises* in these examples is therefore quantized (like the one of *some-NPs* in their strong interpretation).²⁰ How about the “cumulative” property? At first sight, we could think that *des fraises spécifiques/specific strawberries* plus *des fraises spécifiques/specific strawberries* is *des fraises spécifiques/specific strawberries* and that, therefore, their reference type is cumulative. However, it seems to us that the reasoning is more complex. Indeed, the-specific-

19 The non-specific *des fraises* is hence also similar to the *some-NPs* described as problematic for Krifka’s analysis (Section 2.2.1) in the sense that their reference is non-quantized. It is, however, different from these *some-NPs* because the latter are fine with *in*-adverbials (recall (7)), in contrast to non-specific *des-NPs*. This probably explains the translation issue which arises with *des-NPs*: it is often difficult to determine whether their counterpart in English is a bare noun or a *some-NP*.

20 *Some* can be weak or strong (Milsark 1977). That the weak/strong distinction can be treated on a par with the non-specific/specific difference is not new (see McNally 2020; cf. also Von Heusinger 2011).

strawberries-Marie-ate-in-five-minutes-because-she-was-in-a-hurry plus the specific-strawberries-Marie-**picked**-in-ten-minutes-to-prepare-some-dessert is *not* the-specific-strawberries-Marie-ate-in-five-minutes-because-she-was-in-a-hurry *nor* the-specific-strawberries-Marie-**picked**-in-ten-minutes-to-prepare-some-dessert. This means that the reference of *des fraises* (*spécifiques*) is not cumulative.

The difference between specific and non-specific noun phrases can be tested with the use of pronouns since the so-called partitive pronoun (also called quantitative pronoun) *en* in French cannot replace specific noun phrases (Ihsane 2013, where we use the term S-referential, for Speaker's reference, not the term specific). If the difference between (18) and (19) is due to the (non-)specificity of the complements involved as suggested here, it predicts that *en* should be ungrammatical in (19) but fine in (18). That this is borne out is shown in (29) and (30), respectively. The examples are turned into short dialogues to avoid ambiguity:

- (29) [Context: Mary is in a hurry because she has an appointment. Since she is hungry, she eats the strawberries on the table very quickly].

Speaker A: *Tu sais, Marie a mangé des fraises en 5 minutes! Elle était hyper-pressée.*
 you know Marie has eaten PA.PL strawberries in 5 minutes she was very.much.in.a.hurry
 'You know, Marie ate some strawberries in 5 minutes! She really was in a hurry.'

Speaker B: *J'ai vu! Elle *en/les a mangées très vite.*
 I=have seen she PART/them has eaten very fast
 'I saw that! She ate them very fast.'

- (30) Speaker A: *Tu sais, hier, Marie a mangé des fraises pendant une demi-heure!*
 you know yesterday Marie has eaten PA.PL strawberries for a half-hour
 'You know, yesterday, Marie ate strawberries for half an hour!'

Speaker B: *C'est vrai, je l' ai vue, elle en/*les a mangé pendant une demi-heure.*
 it is true I her have seen she PART/them has eaten for a half-hour
 'It's true. I saw her; she ate strawberries for half an hour.'

In (29), the pronoun *en* ‘of.them’ is not possible, and the definite pronoun *les* ‘them’ has to be used in the intended meaning. For the pronoun *en* to be felicitous, it would have to denote a subpart of the strawberries or any strawberries, none of which is the meaning of (19). In (30), the judgements are reversed: *en* is grammatical whereas *les* is not. This is expected as *des fraises* ‘strawberries’ in (30) means *any strawberries* and does not refer to some strawberries whose referent is identified, in contrast to *des fraises* in (29). This confirms that *des fraises* in (30) is not specific and that, in (29), it is not non-specific, otherwise *en* would be grammatical. The anaphoric pronoun *les* in (29) is taken “as a means for disambiguation between a specific and a non-specific reading”, although this “test can only be illustrative” since anaphoric pronouns are licensed in different contexts (Von Heusinger 2011, 1031).²¹ These examples confirm that there is a difference in specificity between the complements *des fraises* in (29) and (30).²²

That specific and non-specific constituents are replaced by different pronominal elements is supported by the crosslinguistic analysis in Sleeman and Ihsane (2020): in this research, we investigated the German and Dutch constructions that correspond to the diverse uses of the French partitive pronoun *en* and developed an analysis accounting for the similarities/differences between these languages in relation to the presence/absence of the partitive pronoun (using the terminology in Ihsane 2013). The data at the heart of the paper were collected in a Grammaticality Judgment Test taken by native speakers of French, Dutch and German. The results of the work were formalized in the model developed in Ihsane (2013) mentioned above and show that in German, for instance, *welch-* is preferred for non-specific constituents.

In sum, we propose that the *des*-complements that are grammatical in a telic eventuality involve a “known” quantity and are specific. As a result, the reference of these complements is quantized. Since the referent of these nominals is known by the subject, we have argued that the type of specificity represented is epistemic specificity.

21 A reviewer also noted that the use of anaphoric pronouns was not conclusive, and we thank them for this observation.

22 Note that we are not claiming that all the complements of telic sentences are specific, but only that specificity is a feature that can lead to a telic reading, in particular with *des*-complements.

4 Conclusion

In this paper, we have tackled an issue little discussed in the literature, namely the grammaticality of *des*-complements, usually associated to atelic eventualities, in telic sentences. To understand the role of the complement in the (a)telicity of the eventuality, we have investigated several features of the *des*-complements involved and shown that they do not play a decisive role, except for specificity which can be related to quantization. More precisely, we have shown that, in our examples, the grammatical number of the complement, the mass/count opposition and the atomicity of its reference cannot trigger the telic interpretation of our puzzling data. To account for the data, we have proposed that the telic examples involve a “known” quantity which leads to quantization, and that “known” can be formalized in terms of specificity. Thus, in telic eventualities, the *des*-complement is specific, whereas in atelic eventualities, it is non-specific. Building on Von Heusinger’s (2000a,b, 2003, 2011) work, we have argued that the type of specificity represented is epistemic specificity and that the referent of such specific indefinites can be identified via referential anchoring, a mechanism involving a function from an anchor to the referent: in our examples with the specific *des*-complements, the anchor is the subject of the sentence. The content of the function contains some information not available to the hearer, namely the quantity of strawberries eaten or picked by the subject of the sentence as she was in a hurry or preparing her dessert, respectively.

One question which arises is whether the analysis of specific *des*-NPs proposed in this paper has repercussions on the syntactic structure of these constituents (for a syntactic analysis of nominals with a “partitive article”, see Gerards and Stark, this volume, and also Dobrovie-Sorin, this volume, on *des*-NPs). One option could be to adopt Campbell’s (1996) proposal that, in languages like English which lack NP-raising, a null operator is merged in the specifier position of the Determiner Phrase, the projection generally hosting articles, as shown in (31) (adapted from Aboh 2002, 6):

$$(31) \text{ } [_{DP} \text{ Op}_i \text{ } [_{D^0} \text{ det } [_{FP} \text{ } [e]_i \text{ N}]]]$$

The operator in (31) sits in the highest projection of the nominal structure and relates this constituent to its referent in the discourse. Such an analysis could extend to the epsilon operator postulated by Von Heusinger (2000). This operator was, however, interpreted as a choice function, an analysis which evolved into the referential anchoring approach presented and adopted here. In this perspective, there could be a different operator in the position of Op in (31)

which would be interpreted as a function $f(anchor) = referent$ which assigns a referent to the indefinite.

Another line of analysis could be to adopt Fodor and Sag's (1982) view that the indefinite article is lexically ambiguous and elaborate on it, postulating different feature hierarchies for indefinite articles. For instance, in our examples, *des* could spell out a hierarchy of features when it is non-specific and another hierarchy of features, certainly richer, when it is specific (cf. Gebhardt 2009). This would be analogous, to some extent, to the nanosyntactic approach developed by Starke (2001, 2014); cf. also Baunaz et al. (2019).

A third possibility would be to assume that specificity is encoded in a discrete projection of the nominal structure. In earlier work, we proposed that specificity (i.e. what we called S(peaker's)-reference in Ihsane 2008; see Section 3.2) is encoded in the highest functional projection of the nominal structure, that is, in a syntactic functional layer specialized for specificity. Accordingly, we labeled this projection S(peaker) Reference. In (32), we have replaced this projection with a Specificity Phrase, reflecting the analysis developed here:

(32) [Specificity Phrase [Quantificational Phrase [Property Phrase ...]]]

The nominal structure in (32) represents the three semantic types *des*-NPs may belong to, namely $\langle e \rangle$ (specific), $\langle \langle e, t \rangle t \rangle$ (quantificational) and $\langle e, t \rangle$ (property-denoting); see Section 2.2.1. One argument we provided for this structure is the use of the pronoun *en*, reported in the previous section (cf. Ihsane 2013). The idea is that pronouns replace different layers of the nominal structure and that *en* cannot replace the Specificity Phrase in (32) since it cannot pronominalize specific complements; it can only replace lower layers of the nominal structure.

A layered nominal structure like (32) seems costly because it implies two different structures for specific and non-specific nominal phrases like *des fraises* in (19) and *des fraises* in (18), respectively. However, besides theory internal justifications, a cross-linguistic perspective may support a complex structural analysis. Although there are no sets of articles that are specific vs. non-specific in Indo-European languages, there are many other languages which mark specificity morphologically or lexically (Von Heusinger 2002a, 254 who cites Lyons 1999, 59). The morphological realizations of specificity in various languages may be difficult to account for with a structure comprising only a Determiner Phrase: for instance, the case marking on specific nominals in Turkish, which involves a definite article *bir* and a case suffix (Lewis 1967; Kornfilt 1997, a. o.), or the combination of two other elements to express specificity (Von Heusinger

2011) could require more than one position in the nominal structure. For reasons of space and time, we leave the question open and will address it in future work.

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References

- Aboh, Enoch. 2002. "Snowballing movement and generalized pied-piping." Talk given at Triggers, Tilburg University, October 24–26.
- Bach, Emmon. 1986. "The Algebra of Events." *Linguistics and Philosophy* 9, no. 1: 5–16.
- Baker, Leroy, C. 1966. *Definiteness and Indefiniteness in English*. Unpublished Master's Thesis. University of Illinois.
- Barwise, Jon, and Robin Cooper. 1981. "Generalized quantifiers and natural language." *Linguistics and Philosophy* 4, no. 2: 159–219.
- Baunaz, Lena, Karen de Clercq, Liliane Haegeman, and Eric Lander, eds. 2019. *Exploring Nanosyntax. Oxford Studies in Comparative Syntax*. New York: Oxford University Press.
- Borer, Hagit. 2005. *In Name Only. Structuring Sense*, vol. 1. Oxford: Oxford University Press.
- Bosveld-de Smet, Leonie. 1998. *On mass and plural quantification: The case of French des/du-NPs*. PhD Diss., Institute for Logic, Language and Computation, Universiteit van Amsterdam.
- Bosveld-de Smet, Leonie. 2004. "Towards a uniform characterization of noun phrases with *des* or *du*." In *Handbook of French Semantics*, edited by Francis Corblin and Henriëtte De Swart, 41–54. Stanford, CA: CSLI Publications.
- Brasoveanu, Adrian, and Donka F. Farkas. 2016. "Indefinites." In *The Cambridge Hand-*

- book of Formal Semantics*, edited by Maria Aloni and Paul Dekker, 238–266. Cambridge: Cambridge University Press.
- Bunt, Harry C. 1985. *Mass terms and model-theoretic semantics*. Cambridge: Cambridge University Press.
- Campbell, Richard. 1996. "Specificity Operators in SpecDP." *Studia Linguistica* 2: 161–188.
- Cardinaletti, Anna, and Giuliana Giusti. 2016a. "The Syntax of the Italian Determiner *dei*." *Lingua* 181: 58–80. <https://doi.org/10.1016/j.lingua.2016.05.001>.
- Cardinaletti, Anna, and Giuliana Giusti. 2016b. "Indefinite Determiners across Italo-Romance Varieties: Optionality and Variation." Talk given at the International Workshop *Partitivity and Language Contact*, Zurich, 25–26 November 2016. (http://www.rose.uzh.ch/dam/jcr:202f4ea2-700f-451c-a0aa-9dee0b76fc84/Cardinaletti_Giusti_Handout.pdf).
- Cardinaletti, Anna, and Giuliana Giusti. 2018. "Indefinite Determiners: Variation and Optionality in Italo-Romance." In *Advances in Italian Dialectology*, edited by Diego Pescarini and Roberta D'Alessandro, 135–161. Language and Linguistics E-Books Online. doi:10.1163/9789004354395_008.
- Carlier, Anne. 2007. "From Preposition to Article. The Grammaticalization of the French Partitive." *Studies in Language* 31, no.1: 1–49. doi: 10.1075/sl.31.1.02car.
- Chierchia, Gennaro. 1998. "Reference to Kinds Across Languages." *Natural Language Semantics* 6, no. 4: 339–405. doi: <https://doi.org/10.1023/A:1008324218506>.
- Chierchia, Gennaro. 2000. "Mass nouns, vagueness and semantic variation." *Synthese* 174: 99–149.
- Comrie, Bernard. 1976. *Aspect*. Cambridge: Cambridge University Press.
- Corblin, Francis, Iléana Comorovski, Brenda Laca, and Claire Beyssade. 2004. "Generalized quantifiers, dynamic semantics, determiners." In *The Cambridge Handbook of Formal Semantics*, edited by Maria Aloni and Paul Dekker, 3–22. Cambridge: Cambridge University Press.
- Corver, Norbert. 2015. "(Un)boundedness across Syntactic Categories." *Theoretical Linguistics*, 41, no. 3–4: 151–165.
- De Swart, Henriëtte. 1998. "Aspect shift and coercion." *Natural language and linguistic theory* 16: 347–385.
- De Swart, Henriëtte. 2006. "Aspectual implications of the semantics of plural indefinites." In *Non-definiteness and plurality*, edited by Svetlana Vogeleeer and Liliane Tasmowski, 161–189. Amsterdam: John Benjamins.
- Dickey, Stephen. 2016. "Lexical and grammatical aspect." In *The Routledge Handbook of Semantics*, edited by Nick Riemer, 338–353. London: Routledge.
- Dobrovie-Sorin, Carmen. This volume. "Negation, *des*-Indefinites in French and Bare Nouns across Languages."
- Dobrovie-Sorin, Carmen, and Claire Beyssade. 2004. *Définir les indéfinis*. Paris: CNRS Editions.

- Dobrovie-Sorin, Carmen, and Claire Beyssade. 2012. *Redefining indefinites*. Springer Science & Business Media.
- Dobrovie-Sorin, Carmen, and Brenda Laca. 2003. "Les noms sans déterminant dans les langues romanes." In *Les langues romanes. Problèmes de la phrase simple*, edited by Danièle Godard, 235–281. Paris: CNRS Editions.
- Doetjes, Jenny. 1997. *Quantifiers and selection. On the distribution of quantifying expressions in French, Dutch and English*. PhD Diss., Holland Institute of Generative Linguistics, Leiden University.
- Doetjes, Jenny. 2012. "Count/mass distinctions across languages." In *Semantics: An International Handbook of Natural Language Meaning*, edited by Claudia Maienborn, Klaus Von Heusinger and Paul Portner, 2559–2580. Berlin, New York: de Gruyter.
- Dowty, David. 1979. *Word meaning and Montague grammar*. Dordrecht: Reidel.
- Eco, Umberto. 1980. *Il nome della rosa*. Milano: Bompiani.
- Eco, Umberto. 1994. *The name of the rose*. With a postscript by the author. Translated from the Italian by William Weaver. San Diego, New York, London: Harcourt Brace & Company.
- Farkas, Donka. 2002. "Specificity distinctions." *Journal of Semantics* 19: 1–31.
- Filip, Hana. 2000. "The Quantization Puzzle." In *Events as Grammatical Objects*, edited by Carol Tenny and James Pustejovsky, 39–96. Stanford, CA: CSLI Publications.
- Fodor, Janet D., and Ivan A. Sag. 1982. "Referential and quantificational indefinites." *Linguistics and Philosophy* 5, 355–398.
- Gebhardt, Lewis. 2009. *Numeral classifiers and the structure of DP*. PhD Diss., Northwestern University.
- Gerards, David Paul, and Elisabeth Stark. This volume. "Why 'Partitive Articles' Do Not Exist in (Old) Spanish."
- Giusti, Giuliana. This volume. "A Protocol for Indefinite Determiners in Italian and Italo-Romance."
- Givón, Talmy. 1976. "Topic, pronoun, and grammatical agreement." In *Subject and topic*, edited by Charles N. Li, 151–188. New York: Academic Press.
- Grice, Paul. 1989. *Studies in the way of words*. Cambridge, MA: Harvard University Press.
- Grimm, Scott. 2012. *Number and Individuation*. PhD Diss., Stanford University.
- Guéron, Jacqueline. 2006. "Generic sentences and bare plurals." In *Non-definiteness and plurality*, edited by Svetlana Vogelee and Liliane Tasmowski, 219–234. Amsterdam: John Benjamins.
- Heim, Irene R. 1982. *The Semantics of Definite and Indefinite Noun Phrases*. PhD Diss., University of Massachusetts Amherst, published in 1989 by Garland, New-York.
- Hoepelman, Jakob, and Christian Rohrer. 1980. "On the Mass-Count Distinction and the French Imparfait and Passé Simple." In *Time, Tense, and Quantifiers*, edited by Christian Rohrer. Tübingen: Niemeyer.

- Huumo, Tuomas. 2020. "Layers of (un)boundedness: The aspectual-quantificational interplay of quantifiers and partitive case in Finnish object arguments." In *Shades of Partitivity: formal and areal properties*, edited by Tabea Ihsane and Elisabeth Stark. Special Issue in *Linguistics* 58, no. 3: 905–936.
- Ihsane, Tabea. 2008. *The Layered DP in French. Form and Meaning of French Indefinites*. Amsterdam, Philadelphia: John Benjamins.
- Ihsane, Tabea. 2013. "On Pronominalization in French and the Structure of Nominal Expressions." *Syntax* 16, no. 3: 217–249. <https://doi.org/10.1111/synt.12003>.
- Ihsane, Tabea. 2018. "Preverbal Subjects with a partitive article: The case of Franco-provençal in the Aosta Valley." Talk given at SLE 51, Workshop *Preverbal Indefinite Subjects*, Estonia: Tallinn University.
- Kamp, Hans. 1981. "A theory of truth and semantic representation." In *Formal methods in the study of language*, edited by Jeroen Groenendijk, Theo Janssen and Martin Stokhof, 277–322. Amsterdam: Mathematical Centre.
- Karssenbergh, Lena. 2016. "French *il y a* clefts, existential sentences and the focus-marking hypothesis." *Journal of French Language Studies*: 1–26.
- Keenan, Edward L., and Jonathan Stavi. 1986. "A semantic characterization of natural language determiners." *Linguistics and Philosophy* 9, 253–326.
- Kenny, Anthony. 1963. *Action, emotion, and will*. London: Routledge and Kegan Paul.
- Kornfilt, Jacqueline. 1997. *Turkish*. London: Routledge.
- Krifka, Manfred. 1989. "Nominal Reference, Temporal Constitution and Quantification in Event Semantics." In *Semantics and Contextual Expression*, edited by Renate Bartsch, Johan Von Benthem and Peter Van Emde Boas, 75–115. Dordrecht: Foris.
- Krifka 1992. "Thematic relations as links between nominal reference and temporal constitution." In *Lexical matters*, edited by Ivan Sag and Anna Szabolcsi, 29–53. Stanford, CA: CSLI Publications.
- Kupferman, Lucien. 1979. "L'article partitif existe-t-il?" *Le français moderne* 47: 1–16.
- Lauwers, Peter. 2019. "Plurality without (full) countability: on mass-like categories in lexical plurals." Submitted to CUP.
- Lewis, Geoffrey. 1967. *Turkish Grammar*. Oxford: Clarendon.
- Link, Godehard. 1983. "The Logical Analysis of Plural and Mass Terms: A Lattice Theoretical Approach." In *Meaning, Use and Interpretation of Language*, edited by Rainer Bäuerle, Christoph Schwarze and Arnim Von Stechow, 302–323. Berlin: de Gruyter.
- Löbner, Sebastian. 2016. "The semantics of nominals." *The Routledge Handbook of Semantics*, edited by Nick Riemer, 283–301. London: Routledge.
- Lyons, Christopher. 1999. *Definiteness*. Cambridge: Cambridge University Press.
- Martin, Robert, ed. 1971. *Temps et aspect. Essai sur l'emploi des temps narratifs en moyen français*. Paris: Éditions Klincksieck.

- Martin, Fabienne, Janayna Carvalho, and Artemis Alexiadou. This volume. "Predicates of Personal Taste and Pancake Sentences in Brazilian Portuguese and French."
- McNally, Louise. 1995. "Bare plurals in Spanish are interpreted as properties." In *Proceedings of the 1995 CSSLI Conference on Formal Grammar*, edited by Glyn Morrill and Richard Oerhle, 197–212.
- McNally, Louise. 2020. "Strong and Weak Nominals." In *The Wiley Blackwell Companion to Semantics*, edited by Daniel Gutzmann, Lisa Matthewson, Cécile Meier, Hotze Rullman and Thomas Ede Zimmerman. Oxford: Wiley.
- Milner, Jean-Claude. 1978. *De la syntaxe à l'interprétation*. Paris: Editions du Seuil.
- Milsark, Gary. 1977. "Peculiarities of the Existential Construction in English." *Linguistic Analysis* 3: 1–29.
- Molendijk, Arie, Henriëtte De Swart, Carl Vettters, Andrée Borillo, Myriam Bras, Anne Le Draoulec, Laure Vieu, Henk Verkuyl and Co Vet. 2004. "Meaning and Use of Past Tenses in Discourse." In *Handbook of French Semantics*, edited by Francis Corblin and Henriëtte De Swart, 271–308. Stanford, CA: CSLI Publications.
- Mourelatos, Alexander. 1978. "Events, Processes and States." *Linguistics and Philosophy* 2: 415–434.
- Roodenburg, Jasper. 2004. *Pour une approche scalaire de la déficience nominale: La position du français dans la théorie des "noms nus."* LOT Dissertation, Series 99.
- Rothstein, Susan. 2008. "Telicity, Atomicity and the Vendler Classification of Verbs." In *Theoretical and Crosslinguistics Approaches to the semantics of Aspect*, edited by Susan Rothstein, 43–77. Amsterdam: John Benjamin.
- Rothstein, Susan. 2010. "Counting and the Mass/Count Distinction." *Journal of Semantics* 27, no. 3: 343–397.
- Schurr, Hagay. This volume. "Bound To Be? Bare and Partitive-Marked Noun Phrases in Romance Languages and the Emergence of Prominence-Conditioned Patterns."
- Seržant, Ilja, A. 2014. "The independent partitive genitive in Lithuanian." In *Grammatical Relations and their Non-Canonical Encoding in Baltic*, edited by Axel Holvoet and Nicole Nau, 257–299. Amsterdam, Philadelphia: John Benjamins.
- Sleeman, Petra, and Tabea Ihsane. 2020. "Convergence and divergence in the expression of partitivity in French, Dutch, and German." In *Shades of Partitivity: formal and areal properties*, edited by Tabea Ihsane and Elisabeth Stark. Special Issue in *Linguistics* 58, no. 3: 767–804.
- Smith, Carlota. S. 1991. *The parameter of Aspect*, vol. 43 of *Studies in Linguistics and Philosophy*. Dordrecht: Kluwer.
- Smith, Carlota. S. 1997. *The Parameter of Aspect*. 2nd edition. Dordrecht: Kluwer.
- Stark, Elisabeth, and David Paul Gerards. This volume. "'Partitive Articles' in Aosta Valley Francoprovençal—Old Questions and New Data."
- Starke, Michal. 2001. *Move dissolves into merge: A theory of locality*. PhD Diss., University of Geneva.

- Starke, Michal. 2014. "Towards an elegant solution to language variation: Variation reduces to the size of lexically stored trees." In *Linguistic Variation in the Minimalist Framework*, edited by Carme Picallo. Oxford Scholarship Online. DOI: 10.1093/acprof:foso/9780198702894.001.0001.
- Storto, Gianluca. 2003. "On the status of the partitive determiner in Italian." In *Romance Languages and Linguistic Theory 2001: Selected Papers from Going Romance 2001*, edited by Josep Quer, Jan Schroten, Mauro Scorretti, Petra Sleeman and Els Verheugd, 315–330. Amsterdam: John Benjamins.
- Szabolcsi, Anna. 2016. "Varieties of quantification." In *The Routledge Handbook of Semantics*, edited by Nick Riemer. London: Routledge.
- Travis, Lisa. 1991. "Inner Aspect and the Structure of VP." Ms. McGill University.
- Van Geenhoven, Veerle. 1998. *Semantic incorporation and indefinite descriptions*. Stanford, CA: CSLI Publications.
- Vendler, Zeno. 1957. "Verbs and times." *The Philosophical Review* 66: 143–160.
- Verkuyl, Henk. 1972. *On the compositional nature of the aspects*. Dordrecht: Kluwer.
- Verkuyl, Henk. 1993. *A theory of aspectuality*. Cambridge: Cambridge University Press.
- Verkuyl, Henk, Co Vet, Andrée Borillo, Myriam Bras, Anne Le Draoulec, Arie Molendijk, Henriëtte De Swart, Carl Vettters and Laure Vieu. 2004. "Tense and aspect in sentences." In *Handbook of French Semantics*, edited by Francis Corblin and Henriëtte De Swart, 271–308. Stanford, CA: CSLI Publications.
- Vet, Co. 1992. "Le passé composé: contextes d'emploi et interprétation." *Cahiers de Praxématique* 19: 37–59.
- Vet, Co. 1999. "Le passé simple, le passé composé et les règles d'interprétation discursive." In *L'emprise du sens, structures linguistiques et interprétations*, edited by Marc Plénat, Michel Aurnague, Anne Condamines, Jean-Pierre Maurel, Christian Molinier and Claude Muller, 323–336.
- Von Heusinger, Klaus. 2000. "The reference of Indefinites." In *Reference and Anaphoric Relations*, edited by Klaus Von Heusinger and Urs Egli, 247–265. Dordrecht: Kluwer.
- Von Heusinger, Klaus. 2002a. "Specificity and definiteness in sentence and discourse structure." *Journal of Semantics* 19, 245–274.
- Von Heusinger, Klaus. 2002b. "Relative Specificity." In *Sinn & Bedeutung VI. Proceedings of the Sixth Annual Meeting of the Gesellschaft für Semantik*, edited by Katz Graham, Sabine Reinhard and Philip Reuter, 115–131. University of Osnabruck.
- Von Heusinger, Klaus. 2003. "Cross-linguistic Implementations of Specificity." In *Meaning through Language Contrast, vol. 2*, edited by Katarzyna M. Jaszczołt and Ken Turner, 405–421. Amsterdam, Philadelphia: John Benjamins.
- Von Heusinger, Klaus. 2011. "Specificity." In *Semantics: An International Handbook of Natural Language Meaning, vol. 2*, edited by Klaus Von Heusinger, Claudia Maienborn and Paul Portner, 1025–1058. Berlin: de Gruyter.

Westerståhl, Dag. 2016. "Generalized quantifiers." In *The Cambridge Handbook of Formal Semantics*, edited by Maria Aloni and Paul Dekker, 207–236. Cambridge: Cambridge University Press.