


ARTICLE

À nouveau and de nouveau in spoken and written French

Malte Rosemeyer 

Albert-Ludwigs-Universität-Freiburg; from 1 October 2021: FU Berlin
Email: malte.rosemeyer@gmail.com

(Received 21 April 2020; revised 30 April 2021; accepted 05 May 2021; first published online 07 September 2021)

ABSTRACT

This paper analyzes the alternation between the near-synonymous French adverbials *à nouveau* and *de nouveau* ‘again’, which has received scarce attention in the literature. While previous descriptions assume that both adverbials are used to express that an eventuality is repeated, it is shown that *de nouveau* and *à nouveau* differ systematically with respect to their preferred usage contexts. On the basis of combined results from a questionnaire that tests speakers’ intuitions and a probabilistic analysis of the alternation between the two adverbials in corpus data, *à nouveau* is shown to be more likely to express a repetitive meaning, whereas *de nouveau* is more likely to express a restitutive meaning, i.e. the return to a previous state of affairs. The analysis also suggests that due to its status of an innovative variant that is gradually displacing *de nouveau*, *à nouveau* is less restricted regarding its usage contexts. Finally, a significant difference between the two variants is found regarding modality, in that the use of *à nouveau* is more likely in written language, whereas the use of *de nouveau* is more likely in spoken language.

1. INTRODUCTION

In Modern French, there is variation between two adverbials that express the meaning ‘again’, and which formally only differ in their preposition: *à nouveau* ‘lit. to new’ and *de nouveau* ‘lit. of new’ (1).

- (1) *Jeanne court {à/de} nouveau.*
‘Jeanne runs again.’

While dictionaries frequently list the two adverbials as synonymous, the scarce linguistic literature on this topic has pointed out possible differences in their use. In particular, the Académie française maintains that the adverbials express different types of iteration: whereas *de nouveau* is used for unmarked repetition, *à nouveau* could be paraphrased as ‘in a completely different manner’, as in example (2).

- (2) *Après avoir examiné de nouveau toutes les hypothèses, elle décida d'étudier à nouveau le problème.*
 'Having examined all of the hypotheses again, she decided to analyze the problem from a new perspective.'
 (<https://www.laculturegenerale.com/de-nouveau-a-nouveau-difference/>,
 retrieved 11 April 2020)

This proposed pattern is surprising in the light of the comparative and typological literature on 'again' expressions, which establish a fundamental metonymy between repetitive readings (an event is repeated) and restitutive readings (a state is restored) (e.g., Wälchli, 2006). From this perspective, the presence of restitutive readings would be expected. Indeed, both *à nouveau* and *de nouveau* can assume such restitutive readings (3).¹

- (3) a. *Pour que le soleil brille à nouveau sur les rives du lac.*
 'So that the sun shines again over the shores of the lake.'
 (2002-04-20, apud CEFC)
- b. *Si nous priorisons la gestion plutôt que l'électoratisme, les Français auront de nouveau confiance en la politique.*
 'If we prioritize administration over electoralism, the French people will again have faith in politics.'
 (cmr-polititweets-c002-tei-v1, apud CEFC)

Apart from Grevisse and Goosse (2008) and a qualitatively-minded paper by Camus (1992), no empirical data regarding the opposition between *à nouveau* and *de nouveau* have been adduced, and there is a complete lack of quantitative analyses on this phenomenon. The present paper aims at filling this lacuna in French linguistics. By combining data from a perception experiment and corpus data from spoken and written French, the analysis demonstrates that the opposition between *à nouveau* and *de nouveau* is at least to some extent governed by the difference between repetitive and restitutive readings, in that the use of *à nouveau* is more likely in contexts typical of repetitive readings, whereas the use of *de nouveau* is more likely in contexts typical of restitutive readings. Due to its status as the innovative variant, which is gradually displacing *de nouveau*, the use of *à nouveau* is found to be more specialized. In contrast, *de nouveau* can be used in a wider range of contexts; for instance, it is more likely to be used for discourse-connective functions that might derive from a historical pragmaticalization process. Finally, the analysis also shows a difference between *à nouveau* and *de nouveau* in terms of the spoken/written dimension.

This article is structured as follows. Section 2 describes previous research, introduces the hypotheses studied in this paper and identifies contextual predictors of the repetitive/restitutive opposition. Section 3 introduces the corpus data and describes the operationalization of the predictor variables. Section 4

¹The examples in (3) are taken from the CEFC corpus, which will be introduced in Section 3 below.

summarizes the results from the questionnaire study, which serve to confirm the relevance of these contextual predictors for the description of the repetitive/restitutive opposition. In Section 5, these contextual predictors are then used to analyze the alternation between *à nouveau* and *de nouveau*. The article closes with a discussion of the relevance of these results in Section 6.

2. *À/DE NOUVEAU* AND THE REPETITIVE/RESTITUTIVE DISTINCTION

This section summarizes the results from previous research, establishes the working hypothesis that the alternation between *à* and *de nouveau* is governed by the difference between repetitive and restitutive readings as well as register and the difference between spoken and written language (Section 2.1), and spells out the predictions generated by these hypotheses (Section 2.2).

2.1 *Previous studies and hypotheses of this study*

French iterative expressions form a complex system and can have different readings (repetitive, frequentative, habitual etc., see Gosselin, 2013, pp. 25–28). Whereas repetitive iteration can be paraphrased as “a process is repeated at least once”, frequentative and habitual iteration are unspecified as to the number of times the process is repeated. ‘Again’ adverbials such as *à nouveau* and *de nouveau* are clearly instances of repetitive iteration, where the eventuality is repeated exactly once.² Gosselin (2013: 28–29) additionally distinguishes between non-presuppositional and presuppositional iteration. ‘Again’ adverbials and other repetitive expressions such as *X fois* (‘X times’) differ in that whereas a sentence such as (4a) is used to assert that the event happened several times, (4b) only asserts the repetition of the event as such, thereby triggering a presupposition that the state-of-affairs in question has been instantiated previously. This difference can easily be demonstrated by considering the effect of negating the proposition; in (5b), the negation has scope over the repetition, whereas the presupposition that Jeanne went to school at some point in the past is not affected. In other words, (5b) is not compatible with a possible world in which Jean did not go to school previously. In contrast, the adverbial *trois fois* is not a presupposition trigger. Consequently, the use of (5a) is compatible with a possible world in which Jean did not go to school at all.³

- (4) a. *Jeanne est allée à l'école trois fois.*
 ‘Jeanne went to school three times.’
 b. *Jeanne est allée à l'école à nouveau.*
 ‘Jeanne went to school again.’

²I will use the term “eventuality” to denote both events and states, in line with the formal semantic literature.

³One anonymous reviewer remarked – correctly, in my view – that the most natural interpretation of (5a) is a context in which Jeanne went to school more than three times, i.e. a context in which (5a) is followed by a sentence such as *Elle y est allée beaucoup plus* ‘She went there a lot more (often)’. However, this observation does not contradict the fact that the continuation *En effet, elle n’y est jamais allée* ‘In fact, she never went there’ is at least possible.

- (5) a. *Jeanne n'est pas allée à l'école **trois fois**.*
 'Jeanne did not go to school three times.'
 b. *Jeanne n'est pas allée à l'école à **nouveau**.*
 'Jeanne did not go to school again.'

In addition to *à nouveau* and *de nouveau*, Gosselin (2013: 28) lists the following expressions of presuppositional repetitive iteration: the prefix *re-*, the adverbs *encore* 'again, yet' and *déjà* 'already', and the adverbials *une fois de plus* 'another time', *pour la troisième fois* 'for the third time' etc.

While presuppositional repetitive expressions such as *re-* (Mok, 1980; Amiot, 2002; Jalenques, 2002; Apothéloz, 2005; Apothéloz, 2007; Mascherin, 2007; Vatrican, 2018; Lauwers, Van den Heede and Tobback, 2019) and *X fois* (Blanche-Benveniste, 1998; Molendijk, 2001; Theissen, 2011) have been studied in detail, the alternation between *à nouveau* and *de nouveau* has not received much attention. Authors frequently treat the two adverbials as interchangeable expressions. For instance, both Gosselin (2013: 28) and Benazzo and Andorno (2017), a study on the acquisition of iterative expressions in L2 French, collapse *à* and *de nouveau*, which would seem to imply that the two adverbials are considered synonyms.

The dictionary of the Académie française claims that *à nouveau* can be paraphrased as 'a second time and in a different manner', whereas *de nouveau* simply means 'another time' (<https://www.dictionnaire-academie.fr/article/DNP0748>, retrieved 14 April 2020). They consequently argue that their sentence in (6) is wrong, in that *à nouveau* should be used. From this perspective, both *à nouveau* and *de nouveau* would express repetitive meanings, the sole difference being that *à nouveau* licenses the further presupposition that while the repeated event has led to the same outcome, the event itself was realized in a different manner.

- (6) *Ce travail est manqué, il faut le faire **de nouveau**.*
 'This work has not been done properly, it's necessary to redo it.'
 (<https://www.dictionnaire-academie.fr/article/DNP0748>, retrieved 14 April 2020)

Example (6) seems quite artificial in Modern French. Grevisse and Goose (2008: 1263), in their corpus of literary texts, fail to find evidence for the relevance of the difference between modified and simple repetition readings for the opposition between the two adverbials, and note that "[l]'usage des auteurs n'a pas suivi cette distinction artificielle".

Indeed, linguistic research on 'again' expressions does not specifically address such modified repetition readings and instead typically analyzes 'again' adverbials in terms of repetitive and restitutive readings (Kamp and Rossdeutsch, 1994, p. 191; von Stechow, 1996; Beck and Snyder, 2001; Fabricius-Hansen, 2001; Wälchli, 2006; Tovená and Donazzan, 2008). As already mentioned in the discussion of the examples in (4), in the repetitive reading, 'again' denotes that the state-of-affairs described by the clause is instantiated for what is at least the second time. In contrast, in a restitutive reading, 'again'

asserts that a referent acquires a property for what is at least the second time. Usually, this reading involves a process whose direction runs counter to that of a previous process undergone by the referent, such that the referent is returned to the previous state. This previous state is frequently viewed as “normal” or “default”.

Consider, for instance, example (7) from actual corpus data. This example is ambiguous between a repetitive reading (‘DIY stores will open again’) and a restitutive reading (‘DIY stores will be open again’). The repetitive reading could be paraphrased as ‘the event of opening is repeated’, whereas the restitutive reading could be paraphrased as ‘the state of being open is repeated’. In other words, the restitutive reading denotes not the repetition of an event, but the restoration of a state that previously held for the subject *les magasins de bricolage*.

- (7) *Ce dimanche, les magasins de bricolage peuvent à nouveau ouvrir.*

‘This Sunday, DIY stores can open again.’

(cmr-polititweets-c007-tei-v1, apud CEFC)

Repetitive and restitutive readings differ in terms of their presuppositional structures. Thus, in the restitutive reading, there is a presupposition that the referent has been in that state previously. For instance, in their restitutive readings, example (8) presupposes that the Parisian teachers have been on strike before and example (9) presupposes that the domestic price has been strictly aligned with the global price before. Note that these interpretations also seem to imply the normality of this state (e.g., Parisian teachers are *expected* to be on strike).⁴

- (8) *Lundi 4 février, une partie des enseignants parisiens seront de nouveau en grève contre le projet de l’académie.*

‘On Monday, 4 February, a group of Parisian teachers will strike again against the project by the Academy.’

(1_M_N_040202, apud CEFC)

- (9) *A partir de 1982, le prix intérieur est à nouveau strictement aligné sur le prix mondial [...]*

‘From 1982 onwards, the domestic price is again strictly aligned with the global price’

(geop_13, apud CEFC)

In restitutive readings, there is no presupposition that the specific process by which the property is acquired has been instantiated before. For instance, in (9) the domestic and global prices could have been aligned right from the

⁴In terms of Camus’ (1992) analysis, which will be presented below, these assumptions of normality represent the authors’ subjective perspectives on how the world is expected to be (Parisian teachers are on strike, domestic and global prizes are aligned). As correctly pointed out by one of the anonymous reviewers, these assumptions of normality are also highly contextual: it is not normal for teachers to be on strike, but it is normal for teachers to be on strike when they are being mentioned in the media and in conversations and become a subject of debate.

start. Crucially however, the restitutive reading entails that a specific previous process, situated in time between the original state and the resultant state, has led to the change of state in the referent (cf. Rosemeyer 2016). In (9), the alignment of the domestic and the global prices is due to a previous process that caused the resultant state, namely an alignment process.⁵

The idea that the alternation between *à nouveau* and *de nouveau* might be at least partially governed by the repetitive-restitutive distinction seems to be in line with the only full-length analysis of this alternation on the basis of empirical data, namely Camus (1992). Camus (1992) analyzes the distribution of the two adverbials in a corpus of diverse text types and shows that their use is not always interchangeable. He claims that *à nouveau* always has a temporal, i.e. repetitive, meaning: “avec *à nouveau*, il ne s’établit de relation entre e_i et e_j que dans le temps” (Camus, 1992: 20, where e_i refers to the original and e_j to the repeated event). In contrast, when *de nouveau* is used, the second event e_j is construed as the reference point of the relation between e_i and e_j (Camus, 1992: 21). Consider Camus’s (1992: 21–22) description of example (10), taken from Simone de Beauvoir’s *Une mort très douce*, in which the narrator describes how she visited her mother again in the hospital.

- (10) *Elle avait changé de visage; son teint était jaune et un pli boursouflé descendait sous l’œil droit, le long de son nez. Cependant, il y avait de nouveau des fleurs sur toutes les tables.*

‘Her face had changed; her skin was colored yellow and a bloated crease ran down from beneath her right eye along her nose. However, there were flowers on all of the tables again.’

The first sentence in (10) indicates that whereas the narrator’s mother was doing well the last time she was visited by the narrator, this time her health condition has deteriorated. However, the use of *cependant* ‘however’ establishes a contrast between this perception and the content of the second sentence because the flowers on the tables indicate that the patient is healthy enough to be visited (Camus, 1992: 22). *De nouveau* thus indicates that contrary to the narrator’s expectations, a state of affairs considered normal by the narrator, i.e. that there are flowers on the tables, was restored. According to Camus, it is this subjectivity that defines the use of *de nouveau*: “*de nouveau* implique en tout état de cause le point de vue d’un sujet sur la répétition” (Camus, 1992: 21). In Camus’ view, using *à nouveau* in example (10) would lead to a “détachement” de la narratrice vis-à-vis de l’état de choses rapporté, interprétation très peu probable dans le contexte large” (Camus, 1992: 22).

Camus himself seems to imply that this subjective interpretation of *de nouveau* is ultimately derived from the restitutive value of *de nouveau*. Thus, he suggests that in example (11), taken from the translation of a science fiction novel about time travel, “ e_j (*la jauge de puissance remonta de nouveau*) annule le procès précédant (*l’aiguille de la jauge de puissance tomba à zéro*)” (Camus, 1992: 22, italics in the original).

⁵The fact that the relationship between the process leading to the resultant state and the resultant state is an entailment is proven by the inconsistency of sentences such as *The domestic prize is again aligned with the global prize, but no alignment process has taken place.*

The restitutive reading emphasizes the viewpoint of the subject, namely the time traveler, who has effected the change in the power gauge.

- (11) *La jauge de puissance remonta **de nouveau** et cette fois, le temporomètre descendit le long de la ligne des siècles.*
 ‘The power gauge went up again and this time, the tempometer went down along the line of centuries.’

The crucial point here is that Camus’ analysis highlights an implicature resulting from the restitutive interpretation of *de nouveau*, namely the categorization of the original state of affairs as “normal” or “default”, which was already brought up in the discussion of examples (8) and (9) above. This implicature is closely associated with the perspective of the subject referent. Both in examples (10) and (11), the protagonists view the original states (there are flowers on the tables, the power gauge is up) as default states. Such an assessment can however only be made from a subjective perspective, which explains Camus’ interpretation of the opposition between *à nouveau* and *de nouveau*.

In his paper on the French prefix *re-*, Apothéloz (2007) operates with a similar distinction, claiming that “quand RE- produit un lexème à valeur annulative, celle-ci est toujours un « retour à l’état primaire », et pas seulement un « retour à un état antérieur »” (Apothéloz, 2007: 150). However, the return to “primary” or “default” state is necessarily a return to a previous state, too. Due to this entailment, I believe that it is problematic to differentiate between two readings restitutive₁ (return to a previous state) and restitutive₂ (return to a default state) when discussing ‘again’ adverbs and rather assume that restitutive₂ is based on an implicature that can be derived from restitutive₁.

In summary, Camus’ (1992) results can be interpreted as a first step towards formulating the hypothesis that the opposition between *à nouveau* and *de nouveau* is at least partially governed by the difference between repetitive and restitutive readings. In particular, the use of *à nouveau* is expected to be more likely in contexts denoting repetition, whereas the use of *de nouveau* should be more likely in contexts denoting restitution.

À nouveau and *de nouveau* also differ with respect to their historical development. While *de nouveau* is attested in Old and Middle French, *à nouveau* is an innovative variant that is only documented from the 19th century onwards (Grevisse and Goosse, 2008: 1263). Figure 1 visualizes the development of the usage frequencies of the two adverbials in the FRANTEXT corpus (ATILF - CNRS & Université de Lorraine, 2020), from 1500 to 2019 (5095 texts, about 245,5 million words). The data from FRANTEXT confirm that *de nouveau* is the older variant. While its usage frequency stagnates between 1500 and about 1750, it increases exponentially after 1750, reaching a plateau between 1950 and 2019. In contrast, the use of *à nouveau* is marginal between the beginning of the 19th century, when it starts experiencing a rapid rise in usage frequency that persists all the way to 2019. In doing so, it also rises gradually in terms of frequency relative to *de nouveau*. Before 1890, *à nouveau* is never used in more than 10 percent of the cases, whereas after 1990, it reaches about 43 percent.

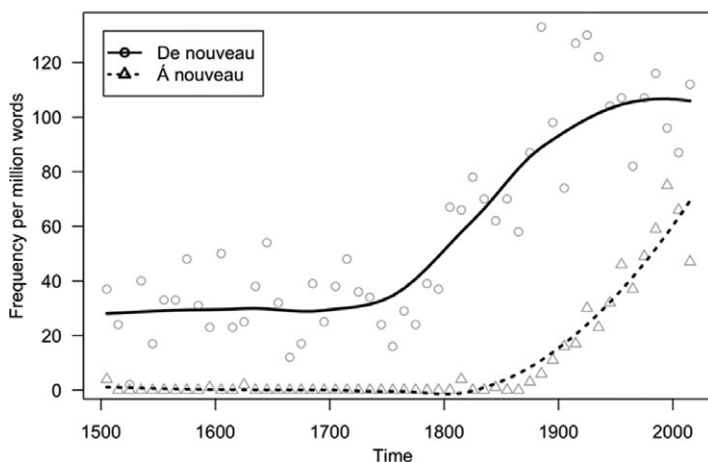


Figure 1. Historical development of the usage frequencies of *de nouveau* ($n = 23,239$) and *à nouveau* ($n = 6,341$), normalized by one million words, in FRANTEXT. Shaded dots/triangles represent mean normalized usage frequencies in 10-year periods between 1500 and 2019, whereas the lines represent results from local polynomial regression models.

If *de nouveau* and *à nouveau* are in any sense synonymous, the results from Figure 1 would thus imply that *à nouveau* is starting to replace *de nouveau*. This might amount to a case of semasiological cyclicity (Hansen, 2014, 2018), where two etymologically related forms “repeatedly develop [...] similar context-level functions from a similar point of departure at the content level” (Hansen, 2018, p. 130). Crucially, Hansen’s work demonstrates that the renewal of the expression of meanings such as ‘[as of] now’ is not abrupt. For instance, despite the fact that it is the descendant of Latin *iam*, Old French *ja* did not just copy its function (Hansen, 2014). Rather, *ja* started out with a rather reduced range of functions and came to gradually acquire the entire spectrum of functions that can be found in Latin *iam* independently from its predecessor. Taken together, this change can be described as a change from temporal to discourse-structuring, i.e. strongly pragmatic, readings.

In the present case, if *à nouveau* is indeed starting to replace *de nouveau*, we would expect *à nouveau* to gradually displace the use of *de nouveau* from certain usage contexts, starting out from rather specific contexts. This consideration leads to a second hypothesis that will be investigated in this paper, namely that in comparison to *de nouveau*, the usage contexts of *à nouveau* should be more restricted because *à nouveau* has only recently begun encroaching on the functional domain of *de nouveau*. Additionally, we might expect differences between *à* and *de nouveau* in terms of register (formal vs. informal situations) and medial orality (spoken vs. written language), in that the more innovative variant *à nouveau* might be more frequent in informal registers and spoken language (see Rosemeyer, 2019).

2.2 Contextual indicators of repetitive and restitutive readings

Most of the examples involving *à* and *de nouveau* adduced until now are ambiguous between a repetitive and a restitutive reading. This ambivalence derives from a fundamental metonymy between these two readings, which can sometimes, but not always, be resolved when considering the extended context. At the beginning of Section 2.1, it was argued that repetitive ‘again’ asserts the repetition of an event, presupposing that the same event has happened before. In contrast, restitutive ‘again’ asserts the repetition of a state, which entails the existence of a previous event reversing the previous state. Consequently, both the repetitive and restitutive reading presuppose or entail the existence of a previous event, which is why in combination with predicates that lead to a resultant state, ‘again’ can receive either a repetitive or restitutive reading.

As a simple example, consider (12), taken from the newspaper *L’Est Républicain*. The author first claims that 50 percent of the Israeli forces have withdrawn from the Palestine territories, but have now reentered. The sentence involving *à nouveau* can be interpreted as both repetitive (the process leading to the presence of Israeli forces in Palestinian territory has happened again) or restitutive (Israeli forces are back in Palestinian territory). This is simply an issue of which component of the complex semantics of ‘enter’ (the event of entering or the resultant state of being inside) is taken to be asserted.

- (12) *La paix ne passe-t-elle pas par un retrait des forces israéliennes des territoires? On s’est déjà retiré à 50 %. Aujourd’hui, toutes les villes et villages palestiniens ne sont pratiquement plus dans des territoires israéliens. Si nous sommes entrés à nouveau c’est en raison du terrorisme.*

‘Will peace only come if the Israeli forces retreat from the [Palestinian] territories? We have already withdrawn 50 percent [of our forces]. Today, practically none of the Palestinian cities and villages remain in the Israeli territories. If we have reentered [the Palestinian territories] it’s because of the terrorism.’

(2002-04-21, apud CEFC)

Even if the extended co-text is considered, the metonymy between the repetitive and restitutive readings makes an evaluation of examples such as (12) in terms of this opposition difficult. Although a repetitive reading is favored, this does not make a restitutive reading impossible. The same holds for almost all examples that have been presented in this paper until now. Any annotation of sentences of *à nouveau* and *de nouveau* regarding the difference between repetitive and restitutive readings will be highly subjective and unreliable.⁶ This calls for an indirect approach to the analysis of the opposition between the two adverbials, as opposed to case-by-case annotation.

⁶As a matter of fact, the three anonymous reviewers of this paper pointed out in many cases how examples that I originally considered to only express a repetitive or restitutive reading could also be interpreted in terms of the opposed reading.

Fortunately, the existing semantic literature on ‘again’ expressions has identified contextual predictors of the two readings, which can be used as indicators in a distributional analysis. First, stative predicates appear to be more prone to expressing restitutive readings than dynamic predicates, and especially activity predicates, because the possibility of a restitutive reading hinges on whether or not the assertion of a repetition has scope over a state. Thus, with activities such as *run* in (13a), use of ‘again’ adverbials leads to a repetitive interpretation. Note that the use of the present perfect substantially reinforces the repetitive reading (see below for details). In contrast, stative predicates modified by ‘again’ usually lead to a restitutive interpretation. For instance, Tovena and Donazzan claim that in their example (13b)

there is an eventuality which is an occurrence of a state of being angry experienced by Mary and that an analogous state for the same experimenter held at a previous time (Tovena and Donazzan, 2008: 100)

In other words, (13b) asserts the repetition of the previous state of Mary’s being angry.⁷ One crucial aspect in the creation of this restitutive reading is Tovena and Donazzan’s mechanism of ‘lumping’, by which “information on its boundaries become available and the internal structure is neglected”, because without lumping, the state could not be interpreted as having a beginning nor an end, which is a prerequisite for the repetition of the state.

- (13) a. *Mary has run again.*
 b. *Mary is currently angry again.* (Tovena and Donazzan, 2008: 100)

However, stativity is not a precondition for restitutive readings. A restitutive interpretation can also derive from non-stative predicates, especially when these predicates carry information about the resultant state of the repeated event e_1 . This applies to telic change of state verbs, whether intransitive or transitive, as demonstrated by (14). Such telic change of state verbs are composed of two semantic components, the event e_1 (e.g. sitting down) and a state resulting from the event (being seated), caused by e_1 . As was already mentioned in the discussion of example (12), with such predicates, ‘again’ adverbials modify either the event, leading to a repetitive reading, or the resultant state, leading to a restitutive reading.⁸ Consequently, a sentence such as (14a) can express either an eventive reading (‘when she (had) sat down’) or a stative-resultative reading (‘when she was sitting’). The difference between the non-stative and stative versions of these sentences is that “the process gives us an indication of how the asserted state has come about, i.e. of how it has been restituted” (Tovena and Donazzan, 2008, p. 101).

⁷One anonymous reviewer proposed that (13b) is unlikely to be interpreted as restitutive on the basis of the assumption that this would suggest that being angry is Mary’s natural state. As described in Section 2.1, I believe that the “naturalness” of the original state in restitutive ‘again’ is not part of the semantics of restitution, but rather an implicature.

⁸In Section 3 it will be argued that it is more appropriate to describe these states resulting from the event as *target states*. Until this distinction is motivated, I will however maintain the term *resultant state*.

- (14) a. *Quand elle s'est assise à nouveau au bord de la scène, cette fois de l'autre côté, on a retenu son souffle.*
 'When she had sat down at the edge of the stage again, this time on the other side, we held our breath.'
 (1_M_C_120302, apud CEFC)
- b. *J'ai apposé à nouveau l'avertissement R3R [...]*
 'I have re-affixed the R3R warning'
 (cmr-wikiconflits-ogm_discu-tei-v1, apud CEFC)

As also mentioned in Tovena and Donazzan (2008: 101), the same applies to degree achievements such as (15), the sole difference being that the restituted state need not be exactly identical but rather in the same approximate range ('it is dark again'); again, both a repetitive and restitutive interpretation are possible.

- (15) *La lumière baisse de nouveau.*
 'The light is fading again.'
 (M. Duras, *L'Éden Cinéma*, 1977, apud FRANTEXT)

Finally, activity predicates are tricky in Romance languages such as French because, when inflected for imperfective aspect, they can be interpreted both as punctual events or habits (see example (1), repeated here as (16)). Whereas the punctual event interpretation leads to a repetitive meaning ('Jeanne is running again'), the habitual interpretation actually represents a restitutive meaning ('Jeanne has taken up the habit of running again').

- (16) *Jeanne court à nouveau.*
 Repetitive: 'Jeanne is running again'
 Restitutive/habitual: 'Jeanne has taken up the habit of running again'

This ambiguity disappears to a great degree when the event is construed as bounded, as in (17), where the verb receives perfective aspect and no restitutive reading is possible. This would predict that in addition to predicate type, verbal aspect is another indicator of the opposition between repetitive and restitutive readings of *de nouveau* and *à nouveau*.⁹

⁹As noted by one of the anonymous reviewers, it is still possible to imagine contexts in which an example such as (17) might be interpreted as restitutive, such as the following:

- (i) *Jeanne a eu un grave accident à l'âge de 16 ans. Elle a dû arrêté la course (comme pratique sportive). Mais les médecins qui se sont occupés d'elle l'ont très bien soignée, et après six mois, Jeanne a couru à nouveau. (au sens: 'a repris la pratique sportive de la course').*
 'At the age of 16, Jeanne had a serious accident. She had to stop running (as a sport). But the doctors who took care of her treated her very well, and after six months, Jeanne ran again.' (in the sense: "has resumed the sport of running").

This comment demonstrates that the indicators of the difference between repetitive and restitutive readings discussed in this section are just proxies, i.e. merely contextual indicators of discursive mechanisms of meaning construction.

- (17) *Jeanne a couru à nouveau.*
 ‘Jeanne ran again.’

A further indicator of the repetitive/restitutive distinction is the use of temporal adverbs or adverbials that position the event in time. For instance, in (18), the use of the adverbial *ce matin* suggests a repetitive reading.

- (18) *Ce matin, Jeanne court à nouveau.*
 ‘Jeanne is running again this morning.’

As was noted in von Stechow (1996) for German, the repetitive/restitutive opposition is also influenced by word order; in transitive subordinate clauses, placement of *wieder* ‘again’ after the object allows for both a repetitive and a restitutive reading, whereas placement of ‘again’ before the object only allows for the repetitive reading. Von Stechow claims that this difference in interpretation results from changes in the syntactic scope of *wieder*. The same situation might apply to French clauses, as shown in example (19). Due to the fact that in (19a) *de nouveau* modifies the entire clause, the clause can receive both a repetitive and a restitutive reading. In contrast, in the invented example (19b), a repetitive reading seems preferred because in this example, *de nouveau* only modifies the event as such, namely *tendit la main*.

- (19) a. *puis il tendit la main de nouveau [...]*
 ‘then he held out his hand again’
 (J.-P. Sartre, *La Mort dans l'âme*, 1949, apud FRANTEXT)
 b. *puis il tendit de nouveau la main*
 ‘then he held out his hand again’

In contrast to German, French also allows fronted ‘again’ adverbials. Intuitively, fronting of *à* or *de nouveau* seems to lead to a repetitive reading (see 20), which can be explained in terms of the notion of resumptive preposing (Cinque, 1990, pp. 88–89). Thus, “the fronted constituent [...] contains an anaphoric element that creates a textual connection with a discourse antecedent” (Leonetti, 2017, p. 908). The anaphoricity of fronted ‘again’ adverbials resides in that, as in fronted comparatives (Leonetti, 2017: 909–910), the eventuality that is repeated must be retrieved from the previous co-text. It is due to this requirement that fronted *à* or *de nouveau* seem more likely to express a repetitive than a restitutive reading; in particular, this syntactic constellation instructs the hearer to go back into the previous context and retrieve a previous occurrence of the same event. In line with the hypothesis that *à nouveau* is more likely to express repetitive readings, we would consequently expect its use to be more likely in fronting contexts.

- (20) *De nouveau, il tendit la main.*
 ‘He held out his hand again.’

The same discourse-connecting effect applies in examples that do not denote the repetition of the eventuality referred to by the predicate. Consider, for instance,

example (21), in which the sentence introduced with *de nouveau* serves to corroborate a hypothesis introduced earlier by the author ('alcohol and cold together are doubly fatal'). The adverb links the present sentence to a previous assessment by the author. Like (20), the sentence expresses a repetitive reading; it however differs from (20) with respect to the nature of the repeated eventuality. In (21), the hearer needs to infer that the repetition is not meant to modify the meaning of the eventuality expressed by the predicate, but rather the speech act level. Just like other French temporal adverbs in the left clause periphery, such as *maintenant* (see Hansen, 2018, pp. 138–139), in such contexts *à* and *de nouveau* consequently have a pragmatic meaning and can maybe even be described as discourse markers.

Hansen (2018) claims that *maintenant* and its older variants *or* and Latin *nunc* started out with a temporal meaning and came to acquire pragmatic discourse-connecting functions gradually over time. The same pragmaticalization process can be hypothesized to have taken place in examples such as (21), where *de nouveau* has extended its scope beyond the proposition of the sentence.¹⁰ This diachronic perspective leads to a second, competing hypothesis regarding the influence of fronting on the alternation between *à nouveau* and *de nouveau*; in particular, given that *de nouveau* is the older variant, it would be more likely to have developed such functions than *à nouveau*.

(21) **De nouveau**, c'est sans doute le mélange léthal d'alcool et de froid
qui aura été doublement fatal.

'In this case, too, the deadly mixture of alcohol and cold must have proven doubly fatal.'

(1_H_N_130103, apud CEFC)

Summing up, if the alternation between *à nouveau* and *de nouveau* is indeed governed by the type of iterative reading, we would expect the alternation to be sensitive to the contextual predictors described in this section. In particular, the use of *de nouveau* would be expected to be particularly likely with predicates that describe states or events leading to a resultant state, imperfective aspect, and less likely with temporal adverbs that describe the temporal position of the eventuality, and in transitive clauses in which the adverb precedes the object.

3. DATA

In this section, I describe the data extraction process (Section 3.1) and annotation procedures (Section 3.2).

3.1. Data extraction process

All tokens of *à nouveau* and *de nouveau* were extracted from the multimodal *Corpus d'Etude pour le Français Contemporain* (ORFEO, 2020, henceforth CEFC).

¹⁰Pragmaticalization can be defined as a subtype of grammaticalization processes which specifically leads to the creation of pragmatic meanings with a low degree of syntactic integration (Diewald, 2011).

Table 1. Operationalization of the variable PREDICATE TYPE

Level	Stative (sub)eventuality	Agentive subject	Telic
State	yes (state)	no	no
Activity	no	yes	no
Change	yes (target state)	yes/no	yes
Manipulation	no	yes	yes
Experience/Punctual	no	yes/no	no

The CEFC is made up from 15 corpora of spoken French (mostly conversations and sociolinguistic interviews, about 4 million words) and six corpora of written French (novels, press texts, scientific texts, and texts from the web and sms, about 6 million words). The resulting $n = 883$ tokens were restricted to texts and recordings after the 20th century, leading to the exclusion of all data from novels. Moreover, duplicates, verbless clauses (see 22) and one case with unclear syntax were deleted. These data homogenization procedures led to a final corpus of $n = 505$ tokens of *à nouveau* and *de nouveau*, which are distributed almost evenly ($n_{\text{à nouveau}} = 253$, $n_{\text{de nouveau}} = 252$).

(22) spk2: *Maintenant j'habite à Montreuil.*

'I now live in Montreuil.'

spk1: *Maintenant à nouveau Montreuil... d' accord.*

'Montreuil again now... alright.'

(Younes_Belkacem_H_59_Mo, apud CEFC)

3.2. Data annotation procedures

The data were coded manually in terms of the contextual predictors whose relevance was established in Section 2.

3.2.1 Predicate type

The variable PREDICATE TYPE operationalizes the predicate type expressed by the clause. The operationalization followed the four criteria summarized in Table 1, namely whether the predicate implies a resultant state for the subject or object, or whether the subject is agentive. This led to a classification that tried to refine Vendler's (1967) original typology of predicate classes. Thus, while the levels "State" and "Activity" correspond to Vendler's original definition, three additional classes were defined, which cannot be mapped univocally to Vendler's concepts of "Achievement" and "Accomplishment".

At this point, it is important to distinguish between *resultant* and *target states*, as defined in Parsons (1990, pp. 234–235) and Kratzer (2000). Resultant states can be defined as the state of the event having culminated. This means that every culminative event has a resultant state. In contrast, only some culminative events

have a target state, defined as a state that is part of the complex eventuality and manifested as an attribute of one of the participants. In Parsons' example *I threw the ball onto the roof*, the sentence yields both a resultant state ('the state of my having thrown the ball onto the roof') and a target state ('the ball is on the roof'). Whereas the resultant state holds forever (the event cannot be undone), target states can be reversed. Consequently, when discussing restitutive meanings, it is important to classify verb meanings according to target states, not resultant states.

Change predicates are predicates that imply a punctual or gradual change of state experienced by the subject or the object, leading to a target state (in 23a, 'Jeanne is home', in 23b, 'The door is open'). In contrast, manipulation predicates do not imply a change of state *strictu sensu*. For instance, in (23c), the action of refuting the argument does not lead to a target state 'The argument is refuted', which would be evident to further persons evaluating the argument. Like manipulation predicates, experience predicates do not lead to a target state for the object; for instance, the use of (23d) does not imply that the dog has experienced a change of state. In contrast to manipulation predicates, however, they involve a non-agentive subject and are atelic. Finally, punctual predicates are comparable to experience predicates in that they do not contain a stative subeventuality and are atelic; however, they vary with respect to the agentivity of the subject referent. Thus, in (23e) Jeanne might have bumped the table voluntarily or accidentally. Given the similarity between experience and punctual predicates and the fact that only two instances of punctual predicates were found (*buter* 'bump' and *claquer* 'bang'), it was decided to collapse the two categories in the typology.

- | | | |
|---------|---------------------------------------|----------------|
| (23) a. | <i>Jeanne est rentrée chez elle.</i> | [Change] |
| | 'Jeanne went home.' | |
| b. | <i>Jeanne a ouvert la porte.</i> | [Change] |
| | 'Jeanne opened the door.' | |
| c. | <i>Jeanne a réfuté l'argument.</i> | [Manipulation] |
| | 'Jeanne refuted the argument.' | |
| d. | <i>Jeanne a vu le chien.</i> | [Experience] |
| | 'Jeanne saw the dog.' | |
| e. | <i>Jeanne a buté contre la table.</i> | [Punctual] |
| | 'Jeanne bumped against the table.' | |

3.2.2 Tense, temporal adverbials and word order

The second variable, TENSE, operationalizes the tense-aspect morphology of the verb in the clause, which is expressed in French using portmanteau morphemes on the main verb or the auxiliary. The following levels were distinguished: Present, Future, ImperfectivePast, PerfectivePast (both simple past and present perfect)¹¹ and Pluperfect.

¹¹The decision to collapse simple past and present perfect was taken on the basis of the fact that in French, both tenses frequently express perfective past. Additionally, a preliminary distributional analysis did not

Table 2. Operationalization of the variable WORDORDER. Abbreviations: V = Verb, Adv = *à/de nouveau*, Obj = (lexical or clitic) Object

Level	Example from the CEFC corpus	n
VAdv	[<i>Il y a</i>] _V <i>donc</i> [<i>de nouveau</i>] _{Adv} <i>un pilote dans l' avion Air Liberté-AOM</i> 'Thus, there is again a pilot in the Air Liberté-AOM plane'	278
VAdvObj	<i>Au mois de février, Régine</i> [<i>claqua</i>] _V [<i>à nouveau</i>] _{Adv} [<i>la porte</i>] _{Obj} 'In February, Régina slammed the door again'	166
VObjAdv	<i>Comment</i> [<i>rendre</i>] _V [<i>notre démocratie</i>] _{Obj} [<i>de nouveau</i>] _{Adv} <i>populaire?</i> 'How can we make our democracy popular again?'	20
AdvV	[<i>De nouveau</i>] _{Adv} <i>nous</i> [<i>commençons</i>] _V <i>par signaler que les trois locuteurs allemands avaient un bon niveau de jugement des phrases des quatre conditions.</i> 'Again, we start by reporting that the three German speakers had a good level of judgment of the sentences of the four conditions.'	22
AdvVObj	[<i>À nouveau</i>] _{Adv} <i>le jaloux</i> [<i>a vu passer</i>] _V <i>devant ses yeux</i> [<i>les trois chevaux rouges</i>] _{Obj} 'The jealous man saw the three red horses pass in front of him again'	7
ObjVAdv	<i>donc je vous</i> [<i>le</i>] _{Obj} [<i>donne</i>] _V [<i>à nouveau</i>] _{Adv} 'So I will give it to you again'	12

Third, the variable PUNCTUALTEMPADV received the value "True" when a punctual temporal adverb(ial) such as *cette année* 'this year', *hier* 'yesterday', *trois fois* 'three times' etc. was used in the clause.

Finally, the variable WORDORDER was used to classify the syntactic structure of the clause. Given that the previous research on this topic identified the position of the adverbial in the clause as crucial, the syntactic configurations were classified in terms of this parameter. Table 2 summarizes the operationalization of word order and gives examples.

4. THE CLASSIFICATION OF REPETITIVE AND RESTITUTIVE READINGS: A CONFIRMATORY QUESTIONNAIRE STUDY

In a first analytical step, the relevance of the contextual predictors of the difference between repetitive and restitutive readings listed in Sections 2.2 and 3 was identified using a questionnaire study. Participants of the study were presented with sentences from the dataset collected from the CEFC and asked to evaluate whether they believed the sentence to express a repetitive or restitutive meaning (see Sections 4.2 and 4.3 below for details). This procedure also allowed me to gauge the

identify significant differences in the relative frequencies of *à nouveau* and *de nouveau* in terms of this difference; with present perfects, *de nouveau* reached a relative frequency of 51.8 percent ($n = 110$), whereas with simple pasts, *de nouveau* reached a relative frequency of exactly 50 percent ($n = 20$). As noted by one of the anonymous reviewers, whether or not the simple past and present perfect express perfective past (especially opposed experiential and resultative readings) has non-trivial consequences for the analysis of the difference between repetitive and restitutive readings, such that perfective past readings should favor a repetitive reading, whereas experiential and resultative perfects are expected to favor a resultative reading.

degree to which sentences involving *à nouveau* or *de nouveau* are ambiguous between repetitive and restitutive readings. These measurements can in turn be used to operationalize the relevance of the contextual features under study for the interpretation process.

4.1. Participants

The questionnaire experiment was run via the web using the experimental environment OnExp developed in the Research Centre “Text Structures” at the University of Göttingen (<https://onexp.textstrukturen.uni-goettingen.de/>). 21 subjects were recruited from the online experimental platform prolific.co (<https://www.prolific.co>). All participants were native speakers of French who do not study languages and linguistics.

4.2 Experiment design

Subjects were asked to read $n = 56$ sentences from the dataset described in Section 3 in a self-paced reading paradigm. The entire experiment (instruction texts and stimuli) was conducted in French. After reading each sentence, they were asked to evaluate on a scale whether the sentence expressed that an event is repeated (value 1), that a state is restored (value 3), or an in-between meaning (value 2). Using two simple examples (*Jeanne a couru de nouveau* ‘Jeanne has run again’ and *Jeanne est de nouveau à la maison* ‘Jeanne is home again’, the participants were first instructed regarding the difference between repetitive and restitutive meanings. They were asked to rely on their intuition in discriminating these meanings for the sentences in the study without elaborating rules regarding the difference between the two meanings. No mention was made of the difference between *à nouveau* and *de nouveau*, and they were described as one and the same adverb (“l’adverbe “à/de nouveau””) in the introduction.

4.3 Materials

It was decided to take the stimuli sentences from the press subcorpus ($n = 153$) because the meaning of these sentences is easiest to understand without extended context. First, very short (less than 10 words) or long (more than 30 words) sentences were excluded from the materials list. Second, the data were reduced such that each verb occurred only once in the materials (for instance, this led to the exclusion of several sentences with the verb *être* ‘to be’). Third, the sentences were filtered manually for comprehensibility. The final dataset then contained a list of $n = 56$ sentences.

4.4 Results

In general, participants judged the sentences of the corpus to be more likely to express a repetitive meaning ($n = 664$) than a restitutive meaning ($n = 427$), with only $n = 85$ cases in which the participants were undecided. However, inspection of the dispersion of the answers across the $n = 56$ sentences revealed

Table 3. Answers by the participants in the questionnaire study, by predicate type

PREDICATE TYPE	n	%1	%2	%3	Agreement rate
State	147	22.4	6.1	71.4	71.4
Activity	147	67.3	4.1	28.6	67.4
Change	462	56.7	7.8	35.5	56.7
Manipulation	336	64.9	8.3	26.8	64.9
Punctual/Experience	84	61.9	7.1	31.0	61.9

that the participants' votes were far from unanimous. The mean agreement rate between the participants was 72.6 percent, ranging from a maximum of 95.2 percent for an example such as (24), to a minimum of 42.9 percent for an example such as (25). Example (24) received the following scores: $n_1 = 20$, $n_2 = 0$, $n_3 = 1$. Example (25) received the following scores: $n_1 = 9$, $n_2 = 4$, $n_3 = 8$.

(24) *L'incroyable Pocuca, qui a déjà stoppé deux penalties en première mi-temps, en arrête **de nouveau** deux [...]*
 'The unbelievable Pocuca, who has already blocked two penalties in the first half, blocks another two'

(2002-04-21, apud CEFC)

(25) *Le MEDEF se réjouit, il montre ainsi **à nouveau** que la durée du travail est un enjeu central dans les rapports d'exploitation et de domination.*
 'The MEDEF is pleased; demonstrating again that work length is a central topic in the reports about exploitation and domination.'

(1_H_F_121203, apud CEFC)

Table 3 summarizes the judgments of the participants as a function of predicate type. As expected, the participants judged *à nouveau* and *de nouveau* to be more likely to express a resultative reading in sentences involving state predicates, and to some degree change predicates, than in sentences involving activity, manipulation, and experience predicates. Note, however, that these two predicate classes also represent the furthest ranges in terms of agreement rate; participants showed the highest agreement rates when presented with stative predicates and the lowest agreement rates when presented with change of state predicates. This observation is in line with the assumption, formulated in Section 2.2., that change of state predicates are especially ambiguous in terms of the distinction between repetitive and restitutive readings.

Table 4 summarizes the participants' judgments as a function of tense. Clauses with verbs inflected for future, present, imperfective past, or non-finite verbs, were classified as restitutive more frequently than clauses with verbs inflected for perfective past or pluperfect. In this case, too, it is instructive to look at the agreement rates; participants showed the highest agreement rates for sentences

Table 4. Answers by the participants in the questionnaire study by tense

PREDICATE TYPE	<i>n</i>	%1	%2	%3	Agreement rate
Present	483	50.7	9.3	40.0	50.1
ImperfectivePast	42	64.3	4.8	31.0	64.3
PerfectivePast	231	76.6	5.2	18.2	76.6
Pluperfect	42	76.2	7.1	16.7	76.2
Future	189	45.0	4.8	50.3	50.0
Non-finite	189	51.9	7.4	40.7	51.9

Table 5. Answers by the participants in the questionnaire study by presence of punctual temporal adverb(ial)s

PUNCTUAL	<i>n</i>	%1	%2	%3	Agreement rate
False	945	52.5	7.7	39.8	52.5
True	231	72.7	5.2	22.1	72.7

Table 6. Answers by the participants in the questionnaire study by word order

WORD ORDER	<i>n</i>	%1	%2	%3	Agreement rate
VAdv	609	51.9	8.2	39.9	51.9
VAdvObj	525	61.0	5.9	33.1	60.1
VObjAdv	21	57.1	14.3	28.6	57.1
AdvV	21	76.2	4.8	19.0	76.2

involving perfective past or pluperfect, suggesting that these tenses are particularly strong cues as to whether a sentence involving *à nouveau* or *de nouveau* should be interpreted as repetitive or restitutive.

Table 5 summarizes the results for the variable PUNCTUALTEMPADV, indicating whether or not a punctual temporal adverb(ial) is used in the clause. The results show that the presence of a punctual temporal adverb(ial) leads to much less frequent classifications of the clauses as restitutive. Note the markedly higher agreement rate for sentences involving a punctual temporal adverb(ial), which likewise indicates the relevance of this parameter for the interpretation process.

Finally, Table 6 summarizes the distribution of the judgments by the participants as a function of word order. While not all word orders described in Section 3 were represented in the sample, the results suggest in particular that clauses with sentence-initial *à/de nouveau* are more likely to be classified as repetitive, whereas intransitive sentences are more likely to be classified as restitutive. In the group of transitive sentences, no significant difference seems to exist

Table 7. Operationalization process for the predictor variable REPETITIVE (initial value of REPETITIVE = 0)

Condition	Transformation for REPETITIVE
PREDICATETYPE = Activity or Manipulation	REPETITIVE = REPETITIVE +2
PREDICATETYPE = Change or Experience/Punctual	REPETITIVE = REPETITIVE +1
TENSE = PerfectivePast or Pluperfect	REPETITIVE = REPETITIVE +1
PUNCTUALTEMPADV = True	REPETITIVE = REPETITIVE +2

between the word orders VAdvObj and VObjAdv. The highest agreement rates are found for the AdvV word order.

By and large, the results from the questionnaire study confirm the relevance of the contextual predictors of predicate type, tense and modification with temporal adverb(ial)s for the interpretation of a sentence as repetitive or restitutive.¹² First, a repetitive reading appears much more likely with activity and manipulation predicates than with state predicates, and somewhat more likely with change and experience predicates. Second, repetitive readings are favored when the verb receives perfective past or pluperfect morphology. Third, a repetitive reading is much more likely in sentences involving a punctual temporal adverbial such as *ce matin* ‘this morning’, than in other sentences.

Regarding the variable WORDORDER, the questionnaire study did not find a strong difference between VAdvObj and VObjAdv orders, which were hypothesized to influence the reading of *à* and *de nouveau* in Section 2.2. As predicted, participants did, however, associate fronted *à* and *de nouveau* with repetitive readings.

5. THE ALTERNATION BETWEEN *À NOUVEAU* AND *DE NOUVEAU*

Having established the relevance of most of the predictors of the repetitive/restitutive opposition in a subsection of the corpus, we are now in a position to evaluate the hypothesis that the difference between *à nouveau* and *de nouveau* is governed by the repetitive/restitutive opposition.

On the basis of the results of the questionnaire study, a numerical variable REPETITIVE was created that measured the likelihood for each sentence or utterance in the data to express a repetitive over a restitutive reading in a bottom-up approach. Table 7 summarizes the operationalization process for this variable. Starting out

¹²A mixed-effects ordinal logistic regression analysis (Johnson and Albert, 2004), with the variable ANSWER (levels 1, 2, 3) as dependent variable, confirmed the statistical significance of these findings. For PREDICATETYPE, relative to state predicates (reference level), participants were significantly less likely to assign a restitutive reading to activity predicates, punctual/experience predicates, change of state predicates, and especially manipulation predicates. For TENSE, relative to present tense (reference level), participants were significantly less likely to assign a restitutive reading to perfective past tenses and pluperfects. Likewise, participants were significantly less likely to assign a restitutive reading when a punctual temporal adverbial was present in the clause (variable *PunctualTempAdv*). No significant effect was found for the variable WORDORDER. The regression model included random by-participant intercepts, thus controlling for interpersonal variation in the judgments by the participants. The model was calculated in R (R Development Core Team, 2019), using the ordinal package (Christensen, 2019).

with an initial value of 0 (representing the highest likelihood for a sentence or utterance to express a restitutive reading), the algorithm incrementally assigned points to the REPETITIVE variable as a function of the contextual properties represented by PREDICATE TYPE, TENSE, and PUNCTUAL TEMP ADV. Due to the mixed results regarding the variable WORD ORDER in the questionnaire study (cf. also footnote 12 above), this variable was not included as a parameter for the operationalization of REPETITIVE. Two conditions received particular weight, because they were judged as particularly important in the questionnaire study: activity and manipulation predicates, and the presence of punctual temporal adverb(ial)s. Note that the maximum attained score for REPETITIVE was.

In (26), I give three examples of the result of this classification process from the corpus. With 5 points, (26a) is predicted to express a repetitive reading, whereas with 0 points, (26c) is predicted to express a restitutive meaning. With 3 points, (26b) is predicted to be ambivalent (note that the predicate *remplacer* is a change of state predicate, which were shown in Section 4 to be more susceptible to lower agreement rates).

- (26) a. *Durant la première manche, la Française a perdu ses cinq jeux de service et a concédé à **nouveau** deux fois sa mise en jeu lors du second set.*
 ‘During the first set, the French team lost its five service games and conceded their turn again twice in the second set.’
 (1_M_S_200103, apud CEFC)
- b. *Alors c’est quelqu’un qui l’a remplacé aussi **de nouveau** [...]*
 ‘So this means that here is someone who replaced him again, too’
 (unine08a16m, apud CEFC)
- c. *Quelle jubilation secrète doit-il ressentir de se voir à **nouveau** au centre des préoccupations du monde!*
 ‘What a secret exaltation he must have felt upon seeing the world revolve around him again!’
 (1_D_E_120902, apud CEFC)

Figure 2 visualizes the distribution of *à nouveau* and *de nouveau* in terms of the REPETITIVE variable as relative frequencies, i.e. percentages (upper plot), and absolute frequencies, i.e. numbers of occurrences (lower plot). Inspection of the relative frequencies suggests that in comparison to *à nouveau*, *de nouveau* is generally more likely to express a restitutive meaning than a repetitive meaning. In particular, *de nouveau* displays a specialization for a restitutive reading (relatively high incidence of *de nouveau* in contexts in which REPETITIVE takes a score between 0 and 2, relatively low incidence in contexts in which REPETITIVE takes a score between 3 and 5), whereas *à nouveau* is specialized in the expression of repetitive meanings, with the inverse distribution. Crucially, the only context in which *de nouveau* has a markedly higher relative frequency are sentences like (26c) that score lowest on the REPETITIVE variable (i.e. 0).

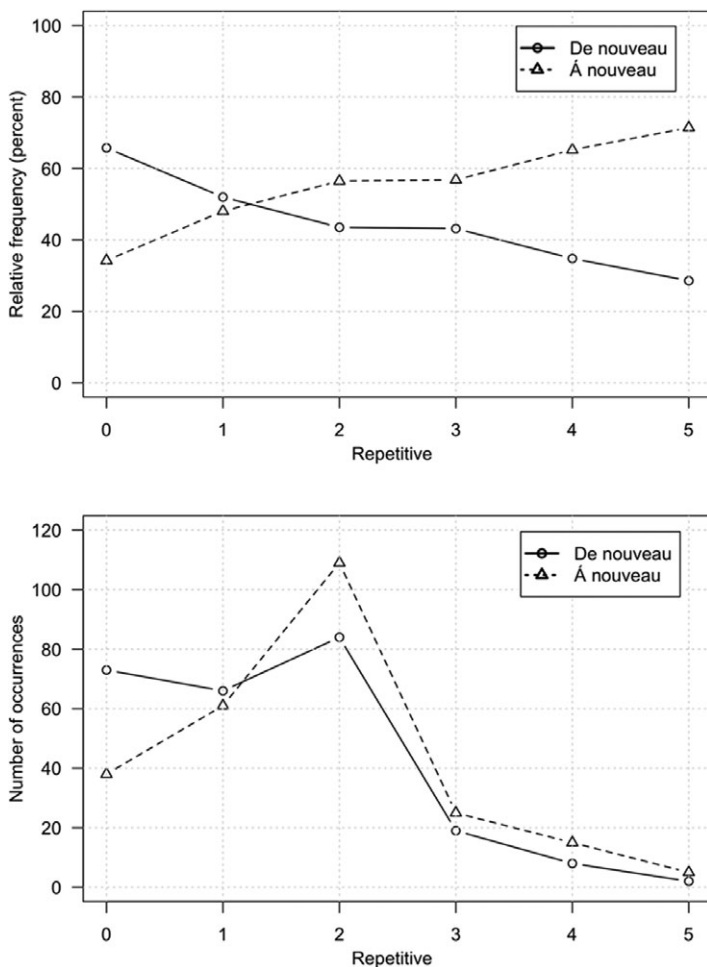


Figure 2. Distribution of *à nouveau* and *de nouveau* by REPETITIVE.

In general, the relative usage frequency of *à nouveau* is higher even in sentences like (26b), which were classified as ambiguous (REPETITIVE score of 2 or 3).¹³

It is also instructive to inspect the absolute usage frequencies of *à nouveau* and *de nouveau* with respect to their scores on the REPETITIVE variable (lower plot in Figure 2). In particular, the usage frequency of *à nouveau* is much higher in

¹³I also realized a token-by-token coding of all data in terms of the repetitive-restitutive distinction on the basis of my intuitions. While this form of approaching the data has the serious drawback of being highly subjective (see Section 2.2 for discussion), the results from this analysis coincide with the results from the indirect approach to the description of the variation between *de nouveau* and *à nouveau*. Whereas 67.6 percent of the tokens of *à nouveau* were classified as repetitive, only 41.0 percent of the tokens of *de nouveau* were classified as repetitive. This difference reached statistical significance according to a χ^2 test ($\chi^2(1) = 36.4$, $p < .001^{***}$).

Table 8. Distribution of *à nouveau* and *de nouveau* by WORDORDER

WORDORDER	Position of Adv	<i>n</i>	% <i>de nouveau</i>	% <i>à nouveau</i>
VAdv	V+Adv	278	51.8	48.2
ObjVAdv	V+Adv	12	50.0	50.0
VAdvObj	V+Adv	166	39.8	60.2
VObjAdv	V+Adv	20	75.0	25.0
AdvV	Adv+V	22	72.7	27.3
AdvVObj	Adv+V	7	71.4	28.6

sentences that achieved a REPETITIVE score of 2 (roughly corresponding to the middle of the distribution) than with other REPETITIVE scores, whereas the usage frequency of *de nouveau* remains relatively stable between sentences classified as 1-3 in terms of the REPETITIVE score. With $n = 431$ in a total of $n = 505$ occurrences, these sentences make up the bulk of the data, which indicates a generality of the use of *de nouveau* compared to a more specialized distribution of *à nouveau*.

A second indicator of the greater specialization of *à nouveau* is its lower incidence in sentences in which the adverbial precedes the verb. Recall that in Section 2.2., it was argued that in such contexts, ‘again’ adverbials can have obtained a pragmatic meaning due to a historical pragmaticalization process, leading to the expectation that the use of *de nouveau* be more frequent in such contexts. Table 8 represents the distribution of the two adverbials by word order, demonstrating that generally, the use of *à nouveau* is more frequent in sentences in which the adverb is positioned after the verb (V+Adv), whereas the use of *de nouveau* is more frequent in sentences in which the adverb is positioned before the verb (Adv+V). VObjAdv sentences, in which the use of *de nouveau* is likewise frequent, are an exception to this rule.

In order to refine the analysis and assess the statistical significance of the findings, a mixed-effects logistic regression model (see, e.g., Levshina, 2015, pp. 253–254) was calculated that predicted the likelihood of the use of *à nouveau* versus *de nouveau* in the entire dataset ($n = 505$) from the predictor variables summarized in Table 9. By virtue of not only including fixed effects but also the random intercept PREDICATE, the regression controlled for inter-predicate variation, i.e. variation in the use of *à nouveau* and *de nouveau* due to the use of specific predicates. It thus captured the fact that the predicates found in the dataset represent a random sample of a much higher number of predicates that could be found in a greater dataset. The regression model was calculated in R (R Development Core Team, 2019), using the lme4 package (Bates *et al.*, 2016). In a first step of the model building, I also tested for an interaction between REPETITIVE and GENRE, which however did not lead to a significant increase in the model quality and was therefore discarded.

With a c index of 0.82, the model reached a reasonable discrimination (Hosmer and Lemeshow, 2000, p. 162), especially considering the reduced number of

Table 9. Predictor variables in the mixed-effects logistic regression model predicting the alternation between *à nouveau* and *de nouveau*

Variable	Variable type	Description
REPETITIVE	Fixed effect	Bottom-up classification of the likelihood for a token to express a repetitive reading, on a scale from 0 to 6
GENRE	Fixed effect	Medial orality/genre of the source text, with the following levels: WrittenPress (reference level), WrittenScientific, SpokenConversation, SpokenInterview/Monologue
PREDICATE	Random effect	Identity of the predicate (e.g. <i>dire</i> 'to say', etc.)

Table 10. Results from the mixed-effects logistic regression model predicting the use of *à nouveau* versus *de nouveau*. Abbreviations: LO = log odds, OR = odds ratio, StE = standard error, Z = z value, P = p value. Significance levels: $p < .05^*$, $p < .01^{**}$, $p < .001^{***}$

Variable	Level	LO	OR	StE	Z	P
(Intercept)		0.171	1.186	0.277	0.617	>.05
REPETITIVE	(numerical)	0.222	1.249	0.107	2.077	<.05*
GENRE	WrittenGenre (RL)					
	WrittenDigital	0.230	1.258	0.354	0.649	>.05
	SpokenConversation	-1.055	0.348	0.311	-3.396	<.01**
	SpokenInterviewMonologue	-1.138	0.321	0.324	-3.508	<.001***
	WrittenScientific	-0.210	0.810	0.285	-0.737	>.05

variables that were tested. The model predicted correctly 71 percent of the alternation between *à nouveau* and *de nouveau*.

Table 10 summarizes the results from the regression model. The variables REPETITIVE and GENRE are found to significantly influence the alternation between *à nouveau* and *de nouveau* even when controlling for inter-predicate variation.

The effects of REPETITIVE and GENRE on the alternation between *à nouveau* and *de nouveau* are plotted in Figure 3. The likelihood of use of *à nouveau* increases with an increasing value of REPETITIVE, corroborating the descriptive analysis in Figure 2. Regarding the effect of GENRE, the plot demonstrates a significant difference between written and spoken texts, in that, surprisingly, the use of *à nouveau* is relatively more likely in written than spoken texts. The genre effects within written and spoken texts are negligible.

The results from the regression analysis clearly support the assumption that *à nouveau* is more likely than *de nouveau* to express a repetitive reading. Even when controlling for genre and inter-predicate variation, the relative likelihood of use of *à nouveau* only reaches about 38 percent in contexts that are judged very likely to express a restitutive meaning (REPETITIVE = 0), whereas with about 75 percent, its use is predicted to be very likely in contexts strongly

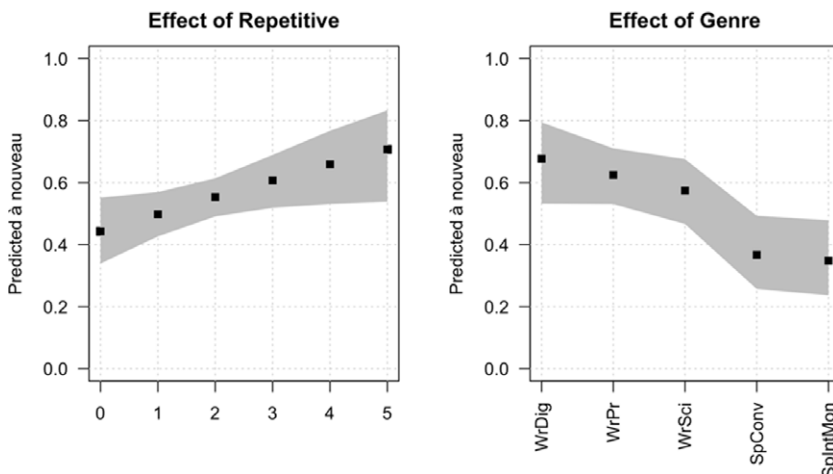


Figure 3. Predicted use of *à nouveau* versus *de nouveau* by REPETITIVE and GENRE. Shaded areas represent confidence intervals. Abbreviations for GENRE: WrDig = WrittenDigital, WrPr = WrittenPress, WrSci = WrittenScientific, SpConv = SpokenConversation, SpIntMon = SpokenInterview/Monologue.

associated to a repetitive meaning (REPETITIVE = 5). The analysis did not find any evidence that this effect is moderated by genre and medial orality, as inclusion of the interaction between REPETITIVE and GENRE did not significantly increase the model quality. However, the analysis did find a significant main effect of GENRE in that the use of *à nouveau* is predicted to be less likely in spoken than in written texts; speakers thus appear to prefer using *de nouveau* in spoken language.

6. SUMMARY AND CONCLUSION

This paper represents the first study that tries to account for the variation between *à nouveau* and *de nouveau* on the basis of a quantitative analysis of written and spoken corpus data. Whereas most existing descriptions of the two adverbials either assume that *à nouveau* and *de nouveau* are synonymous or differ with respect to meaning nuances within the domain of repetitive iteration ('unmarked' repetition vs. 'repetition in a different manner'), the present paper has pursued the hypothesis, inspired by typological studies, that the two adverbials differ in terms of the expression of repetitive and restitutive meanings. In a first analytical step, the contextual predictors of the difference between repetitive and restitutive meanings were identified by testing speaker intuitions on actual corpus data in an online questionnaire study. In a second step, the relevance of these contextual predictors for the alternation between *à nouveau* and *de nouveau* in the corpus data was tested.

The results of the analysis suggest that *à nouveau* and *de nouveau* indeed differ with respect to the likelihood for either adverbial to appear in contexts representing repetitive or restitutive meanings. *À nouveau* is more likely to express repetitive meanings, whereas *de nouveau* is more likely to express restitutive meanings, as evinced by preferences in terms of predicate type, tense and aspect, and modification by temporal adverb(ial)s.

In terms of the global distribution of ‘again’ expressions in French, it would thus seem that *à nouveau* and *de nouveau* differ with respect to which other ‘again’ expressions they compete with. Thus, *à nouveau* is predicted to strongly compete with *encore* ‘again, still’, which does not express restitutive meanings. In contrast, *de nouveau* is expected to compete with the *re*-prefix, which is also very frequently used for the expression of restitutive meanings. A crucial difference between *de nouveau* and the *re*-prefix concerns the potential for lexicalization of the connection between the predicate and the ‘again’ expression, which is much higher for the *re*-prefix (consider predicates such as *rénover* ‘to renovate’ that have become semantically intransparent).

The analysis also found evidence for the second hypothesis, namely, that the use of *à nouveau* is more restricted than the use of *de nouveau* due to the fact that *à nouveau* represents the younger variant. In particular, whereas a strong association between the use of *à nouveau* and the expression of repetitive meanings was found, the distribution of *de nouveau* with respect to the repetitive-restitutive dimension was found to be more balanced. Likewise, it was found that *de nouveau* is more likely to express discourse-connective readings, in which ‘again’ does not have scope over the eventuality expressed by the proposition but rather asserts the repetition of a previous speech act by the speaker or writer. I hypothesized that these readings can be attributed to a historical pragmaticalization process; in line with the notion of semasiological cyclicity, the difference between *de nouveau* and *à nouveau* regarding the likelihood to express such readings is explained by the fact that as the younger variant, *à nouveau* has had less time to develop these readings.

Finally, the analysis documented diamesic preferences in the use of *à nouveau* and *de nouveau*. In my data, the use of *à nouveau* is relatively more likely in written texts, whereas the use of *de nouveau* is preferred in spoken language. This result is contrary to expectations (it was hypothesized that as the more recent variant, the use of *à nouveau* should be more likely in informal situations and spoken language) and could not be attributed to the repetitive/restitutive meaning difference. Likewise, no interaction between the dimensions of conceptual orality and grammatical meaning were found. One of the anonymous reviewers of this paper found a roughly equal frequency of the two adverbials in three other corpora of spoken French (the CFPP2000, CLAPI and PFC), with $n = 88$ occurrences of *à nouveau* and $n = 80$ occurrences of *de nouveau*. This finding indeed contrasts with my results; in the spoken section of the CEFC, I found $n = 123$ occurrences of *de nouveau* and only $n = 57$ occurrences of *à nouveau*.¹⁴ Further studies of the alternation in terms of conceptual orality, discourse traditions and, possibly, dialectal differences are necessary to explain this contrast.¹⁵

¹⁴Comparison of these numbers is non-trivial because the CEFC contains data from the CFPP2000 and the CLAPI. Note that the PFC, in turn, contains recordings not only from France, but places as diverse as Cameroon, Canada, Guadeloupe, La Réunion, New Caledonia, and Senegal.

¹⁵One reviewer of the article hypothesized that the use of *à nouveau* in written texts could be considered hypercorrect. In order to investigate this hypothesis, it would seem necessary to explore the impact of sociolinguistic variables such as age, register on the distinction between *à nouveau* and *de nouveau*. I leave this research to further studies.

It is important to note that the regression analysis predicting the alternation between *à nouveau* and *de nouveau* reached only a moderate, however acceptable, fit to the data. In other words, there is still much variation unaccounted for by the present analysis, which is why I believe further studies should attempt to refine the analysis proposed in this paper. In principle, this can be achieved in two ways. First, it may be that the operationalization of the contextual predictors of the repetitive/restitutive opposition proposed in this study is still lacking. This concerns especially the fact that the study is essentially based on the analysis of sentences or utterances, whereas due to their status as presuppositions, repetitive and restitutive meanings of *à nouveau* and *de nouveau* should be properly defined as discourse phenomena. In other words, the contextual predictors of the repetitive/restitutive opposition identified in this study are just that, contextual predictors, whereas the aspectual meaning of a sentence will frequently be unambiguous in a specific discourse context in which, for instance, the event that is being repeated has been mentioned before. Second, it might of course be the case that the alternation between *à nouveau* and *de nouveau* is governed by further parameters that have not received attention in this study, in particular, sociolinguistic variables such as dialectal variation and inter-speaker variation. In the light of the strong effect of the repetitive/restitutive dimension documented in this paper, it however seems unlikely that such an analysis will contradict the main finding of this study: whereas *à nouveau* typically expresses repetitive iteration, *de nouveau* typically expresses restitutive iteration.

Acknowledgements. This article was discussed at length with many colleagues from the Albert-Ludwigs-Universität Freiburg as part of my habilitation thesis. I am very grateful for this inspiring discussion. I would also like to thank the three anonymous reviewers at the Journal of French Language Studies, who went to great lengths to improve the quality of the article. Their detailed and thorough comments have impacted the analysis substantially and beneficially.

REFERENCES

- Amiot, D.** (2002). *Re-*, préfixe aspectuel? In: V. Lagae, A. Carlier and C. Benninger (eds), *Temps et aspect: de la grammaire au lexique*. Amsterdam: Rodopi, pp. 1–20.
- Apothéoz, D.** (2005). *RE-* et les différentes manifestations de l'itérativité. *Pratiques*, **125–126**: 48–71.
- Apothéoz, D.** (2007). La préfixation en *re-*, l'antonymie directionnelle et les phénomènes de polarité sémantique. *French Language Studies*, **17**: 143–158.
- ATILF - CNRS and Université de Lorraine** (2020). Base textuelle FRANTEXT. URL: www.frantext.fr, retrieved 15 April 2020.
- Bates, D., Maechler, M., Bolker, B., Walker, S., Bojesen Christensen, R. H. and Singmann, H.** (2016). *lme4*. R package version 1.1–12. URL: <https://cran.r-project.org/web/packages/lme4/lme4.pdf>, retrieved 1 April 2021.
- Beck, S. and Snyder, W.** (2001). The resultative parameter and restitutive *again*. In: C. Féry and W. Sternefeld (eds), *Audiatur Vox Sapientiae. A Festschrift for Arnim von Stechow*. Berlin: Akademie Verlag, pp. 48–69.
- Benazzo, S. and Andorno, C.** (2017). Is It Really Easier to Acquire a Closely-Related Language? A Study on the Expression of Iteration and Continuation in L2 French. In: M. Howard and P. Leclercq (eds), *Tense-Aspect-Modality in a Second Language: Contemporary perspectives*. Amsterdam, Philadelphia: John Benjamins, pp. 105–143.
- Blanche-Benveniste, C.** (1998). *Une fois dans la grammaire*. *Travaux de Linguistique*, **36**: 85–101.
- Camus, R.** (1992). *De nouveau/à nouveau: du nouveau*. *L'Information Grammaticale*, **55**: 17–22.

- Christensen, R. H. B.** (2019). ordinal – Regression Models for Ordinal Data. R package version 2019.12-10. URL: <https://CRAN.R-project.org/package=ordinal>, retrieved 26 March 2020.
- Cinque, G.** (1990) *Types of A-Dependencies*. Cambridge: MIT Press.
- Diewald, G.** (2011). Pragmaticalization (defined) as grammaticalization of discourse functions. *Linguistics*, 49.2: 365–390.
- Fabricius-Hansen, C.** (2001). *Wi(e)der* and *Again(st)*. In: C. Fery and W. Sternefeld (eds), *Audiatu(r) Vox Sapientiae. A Festschrift for Arnim von Stechow*. Berlin: Akademie-Verlag, pp. 101–130.
- L. Gosselin** (2013). L'itération dans le modèle SdT. In: L. Gosselin, Y. Mathet, P. Enjalbert and G. Becher (eds), *Aspects de l'itération. L'expression de la répétition en français: analyse linguistique et formalisation*. Bern: Peter Lang, pp. 25–151.
- Hansen, M.-B. M.** (2014). Cyclicity in semantic/pragmatic change: the Medieval particle *ja* between Latin IAM and Modern French *déjà*. In: C. Ghezzi and P. Molinelli (eds), *Discourse and Pragmatic Markers From Latin to the Romance Languages*. Oxford: Oxford University Press, pp. 139–165.
- Hansen, M.-B. M.** (2018). The role of inferencing in semantic/pragmatic cyclicity: the case of Latin NUNC and French *or/maintenant*. *Open Linguistics*, 4: 127–146.
- Hosmer, D. W. and Lemeshow, S.** (2000). *Applied Logistic Regression*. Hoboken, NJ: Wiley.
- Jalenques, P.** (2002). Étude sémantique du préfixe *RE* en français contemporain: à propos de plusieurs débats actuels en morphologie dérivationnelle. *Langue française*, 133: 74–90.
- Johnson, V. E. and Albert, J. H.** (2004). Ordinal regression models. In: D. Kaplan (ed.), *The SAGE Handbook of Quantitative Methodology for the Social Sciences*. Thousand Oaks: SAGE, pp. 151–174.
- Kamp, H. and Rossdeutscher, A.** (1994). DRS-construction and lexically driven inference. *Theoretical Linguistics*, 20.2/3: 165–235.
- Kratzer, A.** (2000). Building stative. In: L. J. Conathan, J. Good, D. Karitskaya, A. Wulf and A. C. L. Yu (eds), *Proceedings of the 26th Annual Meeting of the Berkeley Linguistics Society*. Berkeley: University of California Berkeley Linguistics Society, pp. 385–399.
- Lauwers, P., Van den Heede, M. and Tobback, E.** (2019). *Se (re) trouver* dans tous ses états ... attributifs : sens et constructions. *Zeitschrift für romanische Philologie*, 135.1: 29–67.
- Leonetti, M.** (2017). Basic constituent orders. In: A. Dufter and E. Stark (eds), *Manual of Romance Morphosyntax and Syntax*. Berlin, New York: De Gruyter, pp. 887–932.
- Leshchina, N.** (2015). *How To Do Linguistics With R*. Amsterdam, Philadelphia: John Benjamins.
- Mascherin, L.** (2007). *Analyse morphosémantique de l'aspectuo-temporalité en français. Le cas du préfixe «RE-»*. Doctoral dissertation, Université de Nancy 2.
- Mok, Q.** (1980). Le préfixe «re» re-regardé : productivité et potentialité. In: D. J. Van Alkemade, A. Feitsma, W. J. Meys, P. Th. Van Reenen and J. J. Spa (eds), *Linguistic Studies offered to Berthe Siertsema*. Amsterdam: Rodopi, pp. 205–216.
- Molendijk, A.** (2001). Frequency, Iteration and Tense Use in French. In: R. Bok-Bennema, B. De Jonge, B. Kampers-Manhe and A. Molendijk (eds), *Adverbial Modification: Selected Papers from the Fifth Colloquium on Romance Linguistics*. Amsterdam: Rodopi, pp. 67–78.
- ORFEO** (2020). Corpus d'Étude pour le Français Contemporain (CEFC). URL: <https://www.projet-orfeo.fr>, retrieved 17 April 2020.
- Parsons, T.** (1990). *Events in the Semantics of English: A Study in Subatomic Semantics*. Cambridge: MIT Press.
- R Development Core Team** (2019). *R: A language and environment for statistical computing*. URL: <http://www.R-project.org>, retrieved 30 March 2019.
- Rosemeyer, M.** (2016). The development of iterative verbal periphrases in Romance. *Linguistics*, 54.2: 235–272.
- Rosemeyer, M.** (2019). Actual and apparent change in Brazilian Portuguese *wh*-interrogatives. *Language Variation and Change*, 31.2: 165–191.
- von Stechow, A.** (1996). The different readings of *wieder* “again”: a structural account. *Journal of Semantics*, 13: 87–138.
- Theissen, A.** (2011). La quantification verbale: la locution itérative *X fois*. *Romanische Forschungen*, 123.4: 435–453.
- Tovena, L. M. and Donazzan, M.** (2008). On repeating. *Recherches Linguistiques de Vincennes*, 37: 85–112.

- Vatrican, A.** (2018). La traduction de la répétition. In: C. Ballestero de Celis and Y. García-Márkina (eds), *L'épreuve de traduction. Capes et agrégation d'espagnol*. Malakoff: Armand Colin, pp. 139–158.
- Vendler, Z.** (1967). Verbs and times. In: Z. Vendler (ed.), *Linguistics in Philosophy*. Ithaca: Cornell University Press, pp. 97–121.
- Wälchli, B.** (2006). Typology of light and heavy “again”, or, the eternal return of the same. *Studies in Language*, 30.1: 69–113.