

# The French intensifier *auto*

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## Abstract

This paper studies the contribution of the verbal prefix *auto* to the interpretation of the clause in French. It is proposed that *auto* is an intensifier stating that, perhaps contrary to expectations, no agent other than the one specified in the clause (agent-focusing), or, in anticausative clauses, no external agent (agent-denying), is responsible for the event. *Auto* modifies a verbal projection (vP or VP), and the nature of the constituent to which it attaches determines and constrains the interpretation of the clause.

## Keywords

auto-prefixation, Voice, little v, v, anti-assistive, focus, reflexive, intensifier, French

## 1. Introduction

Labelle (2008) asked why French verbs prefixed with *auto* are constructed with a reflexive clitic, a questioning taken up in Mutz (2011), Sportiche (2014), and Marelj & Reuland (2016):

- (1) Jean s' autoanalyse.  
Jean REFL self-analyze  
'Jean analyzes himself.'

It would appear that *auto* 'self' and the reflexive clitic *se* perform the same operation : each of them transforms the two-place verb *analyser* 'analyze' into a one-place reflexive verb :

- (2) a. analyser 'analyze' :  $\lambda y \lambda x \lambda e. \text{analyze}(y,x)$   
b. autoanalyser 'self-analyze' :  $\lambda x \lambda e. \text{analyze}(x,x)$   
c. s'analyser 'REFL analyze' :  $\lambda x \lambda e. \text{analyze}(x,x)$

This is a puzzle because the addition to the verb of one of the two morphemes should bleed the possibility of adding the second one.

Labelle's solution was that *auto* is a semantic reflexiviser, and *se* is a Voice head introducing the agent<sup>2</sup> in syntax when it is coindexed with an accusative or dative object. If *se* were not present, Active Voice would add an external argument unrelated to the internal argument and the sentence would not be reflexive, yielding a contradiction in the case of *s'autoanalyser*. Alexiadou (2014) rejected this solution

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2 'Agent' is used throughout this paper as a cover term for the role of the external argument.

because, if the external argument is severed from the verb and introduced by Voice (Kratzer 1996), the root *autoanalyser* cannot contain a variable for the agent, as in (2b). A year later, Spathas, Alexiadou & Schäfer (2015) produced an analysis of the prefix *afto* ‘self’ in Greek that treats this morpheme as an anti-assistive intensifier modifying the Voice projection.

In the present paper, we would like to pursue the discussion by focusing on the prefix *auto*. We will show that there are reasons to think that *auto* is merged below the grammatical Voice head. Distinguishing *v* and Voice, we will argue that *auto* is an intensifier modifying a verbal projection. Moreover, *auto* is not anti-assistive. In transitive and reflexive sentences, the modification it introduces appears to be agent-focusing, emphasizing the fact that no agent other than the one mentioned in the clause is responsible for the event; in anticausative sentences, it is agent-denying, emphasizing the fact that no agent is responsible for the event.

We will briefly summarize Spathas et al.’s analysis of the Greek prefix *afto*. Then, we will show why it cannot be adopted for the French prefix *auto*. Finally, we will explore an analysis of the facts.

## 2. Spathas, Alexiadou & Schäfer (2015) on *afto*

Spathas et al. (2015) argue that, in Greek, the prefix *afto* ‘self’ is an anti-assistive intensifier that attaches to naturally disjoint verbs — i.e. verbs denoting events where the agent is normally disjoint from the theme<sup>3</sup> — in the Middle Voice. An anti-assistive intensifier means roughly ‘without help’. The morphological exponent of Middle Voice is non-active (NACT) morphology. By default, naturally disjoint verbs with non-active morphology are interpreted as passive. *Afto* is used with these verbs to produce a reflexive interpretation, as shown in (3) (Spathas et al., ex. (1)).

- (3) I Maria      *afto*-katijori-thike.  
       the Mary.NOM self-accused-NACT.3SG  
       ‘Mary accused herself.’

According to Spathas et al., *afto* is a modifier of MiddleVoiceP that states that, in all sub-events of the event described by the verb, the agent of the subevent is the same entity as the theme. Thus, the sentence in (3) is interpreted as in (4). The modification carried by *afto* is underlined; the part of (4) that is not underlined corresponds to the interpretation of the predicate in the Middle Voice (which existentially binds the external argument).

- (4)  $\lambda e. \exists x. \text{accuse}(\text{mary}, e) \ \& \ \text{agent}(x, e) \ \& \ \underline{\forall e' \forall y. (e' \leq e \ \& \ \text{agent}(y, e'))} \rightarrow y = \text{mary}$

According to (4), (3) means that Mary was accused by someone and, in every subevent of the accusation event, Mary was the accuser. The underlined modification creates a sentence interpreted as

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3 Naturally disjoint verbs are defined by the authors as carrying in their encyclopaedic information the expectation that the two semantic roles they make reference to will refer to distinct entities (Spathas et al. 2015:1297).

reflexive : the agent of every subevent is the same entity as the theme of the main event.<sup>4</sup> It is anti-assistive because it states that no subevent has an agent distinct from Mary, i.e. Mary acted alone.

Treating the French prefix *auto* as an anti-assistive intensifier could solve the semantic problem raised by Labelle (2008), because *auto* and *se* would have a distinct contribution to the semantics of the sentence. However, as we will see in the next sections, there are reasons to doubt that *auto* is a modifier of grammatical Voice. We will argue that *auto* is indeed an intensifier, but not an anti-assistive one.

### 3. Place of attachment

In Greek, the prefix *afto* and the non-active suffix both surface on the verbal root, and the order of attachment of each morpheme cannot be determined by looking at the verb form (cf. (3)). In French, *auto* is always attached to the verbal root, but the Reflexive Voice head *se* frequently surfaces in a position isolated from the verbal root, to the left of auxiliaries and adverbs:

- (5) Jean s' est souvent autoanalysé.  
 Jean REFL BE<sub>AUX</sub> often self-analyze  
 'Jean often analyzed himself.'

Unless there are compelling reasons to think otherwise, it is best to analyze *auto* as prefixed to the verb, and *se* as attached later in the derivation. We will propose that *auto* modifies a vP or VP projection, and that *se* is the head of a grammatical Voice projection merged above vP/VP.

Observe also that, if Passive Voice and Reflexive Voice are responsible for the selection of the *être* 'be' auxiliary, the grammatical Voice head *se*, in (5), must be higher in the structure than the *auto* prefixed verb, and *auto* cannot modify a projection of Voice.

### 4. Readings of *auto*-prefixed verbs and Voice dependency

Mutz (2004, 2011) distinguished three different readings of French *auto*-prefixed nominals. The same readings apply to verbal predicates, and we will use verbs to exemplify them.<sup>5</sup> They are :

1- An *agent-focusing* reading. In that reading, *auto* attaches to a transitive verb. This shows that *auto* is not always a reflexivizer.

- (6) a. Les patients autogèrent leur diabète.  
 The patients self-manage their diabetes  
 'The patients manage their diabetes by themselves'

4 Technically, *afto* is said to attach counter-cyclically to an unsaturated projection of Middle Voice created by covert movement of the object DP to the edge of MiddleVoiceP. The semantic formula used by the authors explicitly specifies that the associate of *afto* is the theme (Spathas et al. ex. (135)) :

[[Middle VoiceP3]] =  $\lambda e. \exists x. \text{accuse}(e) \ \& \ \text{theme}(\text{mary})(e) \ \& \ \text{agent}(x)(e) \ \& \ \forall e' \forall y. (e' \leq e \ \& \ \text{agent}(y)(e')) \rightarrow y = \text{mary}$

5 The French examples are for the most part shortened and simplified versions of attested examples.

- b. Mon portable a autodétruit le disque dur.  
 my laptop HAS<sub>aux</sub> self-destroyed the disk hard  
 ‘My laptop destroyed the hard disk by itself.’
- c. Cet outil sert à autoévaluer votre situation financière.  
 this tool use to self-evaluate your situation financial  
 ‘This tool is used to evaluate your financial situation by yourself.’

For this reading, Mutz analyzes *auto* as emphasizing the role of the agent as being the entity responsible for the event (cf. also Castella 2010 for Italian). In essence, a focus on a constituent generates alternative propositions in which the element in focus is replaced with others relevant in the context, and the speaker states that, perhaps contrary to expectations, every alternative is false, thereby emphasizing the role of the focused element (Rooth 1992, 1996). A focus on the agent means that the agent, and no one else, is responsible for the event. So, an agent-focusing reading of (6a) states that the patients manage their diabetes, and that no other contextually relevant agent manages it; i.e. the patients themselves, and not their doctors for instance, manage their diabetes. The formula in (7) is a transposition of that used by Mutz (2004)<sup>6</sup>. The underlined part of (7) expresses the focus on the agent contributed by *auto*.

(7) Les patients autogèrent leur diabète.

$\lambda e$ . manage(diabetes,e) & agent(patients,e) & diabetes contiguous patients &  $\neg\exists z(z\neq\text{patients})$   
agent(z,e) (where z is a member of a contextually relevant set of alternatives to which the patients belong)

Mutz proposes that there is a relation of contiguity between the object and the agent (‘y contiguous x’), explaining that, in the DP *l’autoconsommation des produits par les paysans* ‘the self-consumption of the products by the farmers’, the farmers must consume the products that they themselves produced. The contiguity condition captures the fact that the object is often accompanied by a possessive determiner referring back to the agent, as can be seen in (6a,c) (cf. Dugas 1992). Leaving this condition to the side, we will focus our attention on the underlined modification.<sup>7</sup>

6 The formula used by Mutz (2004:367, ex. 31) for the noun *autofinancement* ‘self-financing’ is the following:

(i) autofinancement :  $(\lambda y) \lambda e$  [x CAUSE (BECOME (FINANCÉ (y))) (e) & y kontig x &  $(\neg\exists z (z\neq x) z \text{ finance } y)$   
 (wobei z aus der alternativen Menge zu x gegriffen ist)

7 Pending further research, we assume the agent-focusing reading proposed by Mutz for reasons that will become clear in the text. Importantly, though, the meaning of (6a) is not similar to (ia) (with an identity intensifier), but, rather, to (ib).

(i) a. Les patients eux-mêmes gèrent leur diabète.  
 ‘The patients themselves manage their diabetes.’  
 b. Les patients gèrent leur diabète par eux-mêmes.  
 ‘The patients manage their diabetes by themselves.’

Contrary to the adnominal *eux-mêmes*, both *auto-* and *par eux-mêmes* are compatible with an indefinite quantified subject, and neither *auto* nor *par eux-mêmes* are obligatorily stressed (cf. Eckardt 2001:379-380 on German *selbst*) :

(ii) a. La plupart des patients autogèrent leur diabète.  
 ‘Most patients self-manage their diabetes.’  
 b. \*La plupart des patients eux-mêmes gèrent leur diabète.

The sentences in (6) are transitive, and passivization is allowed:

- (8) a. Le chantier est autogéré par le client.  
the construction\_site is self-managed by the client  
'The construction site is managed by the client himself.'
- b. Un délai de 7 jours après lequel le mail sera autodétruit par le serveur.  
a delay of 7 days after which the e-mail will\_be self-destroyed by the server  
'A 7-day delay after which the e-mail will be destroyed by the server itself'

2- A *reflexive* reading, illustrated in (1) and in (9a). In that reading, *auto* attaches to a reflexive verb, and the sentence with *auto* is a quasi-synonym of the sentence without it. Thus, (9a) may be paraphrased by (9b). Both sentences are interpreted as in (10), with coindexation of the agent and the theme.

- (9) a. Donald s'autocongratule.  
Donald REFL self-congratulate
- b. Donald se congratule.  
Donald REFL congratulate
- (10)  $\lambda e$ . congratulate(donald,e) & agent(donald,e)

Intuitively, (9a) is an intensified version of (9b); we will argue that the intensification associated with *auto* is agent-focusing rather than anti-assistive.

3- An *anticausative* reading, where *auto* attaches to an anticausative verb. The verb *allumer* in (11) is an accomplishment verb entering the causative alternation. In its transitive variant (11a), the external argument causes a resulting event : [<sub>VP</sub> Jean CAUSE [<sub>VP</sub> lamp lights up]]. In the anticausative variant (11b), *se* is a Voice head that we will call Anticausative Voice.<sup>8</sup> Anticausative Voice prevents the merge of the causative level, leaving only the downstairs event, interpreted as in (12), with a theme subject.

- (11) a. Jean allume la lampe.  
Jean lights up the lamp

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'Most patients themselves manage their diabetes'

- c. La plupart des patients gèrent leur diabète par eux-mêmes.  
'Most patients manage their diabetes by themselves.'

In (ia), the agent is directly contrasted with other potential agents. In (ib), the reflexive complement focuses on the fact that the agent (and no one else) assumes control over the event. *Par eux-mêmes* (not to be confused with *d'eux-mêmes* 'of themselves') in (ib) is not anti-assistive, since one could add to (ib) *avec l'aide de leur nutritionniste* 'with the help of their nutritionist' (cf. also 18a). While a non-delegative reading (cf. section 5) of *par eux-mêmes* and *auto* is plausible in (6a)/(ib), it does not apply to (6b), which has an inanimate subject. We argue in the text that *auto*-prefixation is neither anti-assistive nor non-delegative. On the relation between non-delegation and agent-focus, cf. fn. 9.

8 Other authors, among which Labelle & Doron 2010, use the label Middle Voice, assuming that the same variant of *se* is involved in middle constructions.

- b. La lampe s'allume.  
the lamp REFL light\_up  
'The lamp is lighting up.' (not necessarily by itself)

(12)  $\lambda e$ . light\_up(lamp,e)

In (13a) *auto* attaches to the anticausative variant (11b), and it places emphasis on the autonomous nature of the event. Thus, (13a) is synonymous to (13b). Adding *toute seule/d'elle-même* 'alone/by itself' to (13a) is rejected because it is felt as redundant (13c).

- (13) a. La lampe s'autoallume.  
the lamp REFL self-light\_up  
'The lamp lights up by itself.'
- b. La lampe s'allume toute seule/d'elle-même.  
the lamp REFL light\_up all alone/of itself  
'The lamp lights up by itself.'
- c. \*La lampe s'autoallume toute seule/d'elle-même.  
the lamp REFL self-light\_up all alone/of itself  
'The lamp lights up by itself.'

Spathas et al. argue that, in Greek, *afto* selects a projection of Middle Voice, thereby explaining why *afto* only appears on verbs with non-active morphology. The argument does not carry over to French, because, in French, there is no dependency relation between *auto* and some particular Voice. In the agent-focusing reading, *auto* cooccurs with Active Voice, and it is also compatible with Passive Voice. In the reflexive and anticausative readings, *auto* cooccurs with the morpheme *se*, which, according to Labelle (2008), is not the same head in both readings. *Se* is the head of Reflexive Voice in reflexive and reciprocal sentences, but, in anticausative sentences, *se* heads Anticausative Voice. Thus, in French, *auto* does not select for a particular Voice head, and there is no reason to assume that it merges after Voice. We will develop an analysis in which *auto* is prefixed to the verb before the Voice head is added to the derivation.

The fact that the three readings of *auto* are observed on nominals (Mutz 2004, 2011) also shows that *auto* attaches low, here within nP, and not to the grammatical Voice head involved in active, passive and reflexive clauses:

- (14) a. l'autoanalyse des données financières par un usager (agent-focusing reading)  
the self-analysis of\_the data financial by a user  
'the self-analysis of financial data by a user'

- b. Donald est champion de l'autocongratulation (reflexive reading)  
Donald is champion of the self-congratulation  
'Donald is champion of self-congratulation'
- c. l'autoextinction de l'appareil (anticausative reading)  
the self-cutout of the device  
'the automatic cutout of the device'

## 5. Anti-assistiveness and *auto*-prefixation

In this section, we ask to what extent an anti-assistive modification could express the meaning of French *auto*-prefixed verbs.

The anti-assistive formula defended by Spathas et al. comes in two variants. In the anti-assistive modification proposed for *afto*, the associate of *afto* is the theme. The modification says that, in every subevent of the main event, the agent of the subevent is the same entity as the theme of the main event (cf. fn. 2), giving rise to a reflexive reading.

(15) Anti-assistiveness with a theme associate

$$\lambda e. \exists x. \text{accuse}(\text{mary}, e) \ \& \ \text{agent}(x, e) \ \& \ \underline{\forall e' \forall y. (e' \leq e \ \& \ \text{agent}(y, e')) \rightarrow y = \text{mary}} \ (=4)$$

The associate of an anti-assistive morpheme may also be the agent. *Himself* in (16a) illustrates this situation. According to (16b), the modification contributed by *himself* states that, in every subevent of the building event, the agent of the subevent is the agent of the building event:

(16) a. John built the house himself.

b. Anti-assistiveness with an agent associate:

$$\lambda e. \text{build}(\text{house}, e) \ \& \ \text{agent}(\text{john}, e) \ \& \ \underline{\forall e' \forall z. (e' \leq e \ \& \ \text{agent}(z, e')) \rightarrow z = \text{john}}$$

(Spathas et al. 2015, p. 1304, ex. (34)-(35))

In both (15) and (16), the underlined formula covers anti-assistiveness proper (the associate of the anti-assistive morpheme was not helped for a proper subpart of the event :  $e' < e$ ), as well as a non-delegative reading ( $e' = e$ ) whereby the associate of the anti-assistive morpheme did not get someone else to do the action for him/her. For instance, the non-delegative reading of (16a) states that John did not ask someone to build the house for him.

We should mention here that there are other ways to express anti-assistiveness. For instance, Eckardt (2001:402) expresses the non-assistive/non-delegative reading as  $\neg \exists x. \text{ASSIST}(e)(x)$ . She views ASSIST as the human pendant to the INSTRUMENT role : it “relates persons to an event in which they are not the driving agent themselves but assist the agent in performing a task”. The event predicate is therefore sortally restricted to agentive events.

## 5.1 Agent-focusing reading

For the sentences in (6), where the verb is not reflexive, we may consider, as a potential alternative to the agent-focusing reading proposed by Mutz (2004), an anti-assistive reading in which the associate of *auto* is an agent. With Spathas et al.’ anti-assistive formula, (6a), repeated below, would state that the patients manage their diabetes, and they are the agent of every subevent of the managing event (17b).

- (17) a. Les patients autogèrent leur diabète. (=6a)  
 b.  $\lambda e. \text{manage}(\text{diabetes}, e) \ \& \ \text{agent}(\text{patients}, e) \ \& \ \underline{\forall e' \forall z. (e' \leq e \ \& \ \text{agent}(z, e')) \rightarrow z = \text{patients}}$

However, the following examples show that the external argument may be helped in the realization of the event:

- (18) a. Les patients autogèrent leur diabète avec l’aide de leur nutritionniste.  
 the patients self-manage their diabetes with the help of their nutritionist  
 b. Nous aidons les associations à autoorganiser la vie culturelle locale.  
 we help the associations to self-organize the life cultural local  
 ‘We are helping the associations to organize by themselves the local cultural life.’  
 c. J’aide un jeune adolescent autiste à autopublier son roman.  
 I help a young teenager with autism to self-publish his novel  
 ‘I am helping a young teenager with autism to publish his novel on his own’  
 d. Les résidents autogèrent les appartements avec l’aide de "bénévoles extérieurs"  
 the residents self-manage the apartments with the help of ‘volunteers exterior’  
 qui apportent leurs compétences (finances, juridiques, etc.)  
 who bring their skills (finances, legal, etc.)  
 ‘The residents manage the apartments by themselves with the help of exterior  
 volunteers who contribute their own skills (financial, legal, etc.)’

Anti-assistive modifiers are said to contrast with comitative phrases in contexts containing a focus-sensitive operator like negation, as shown in (19a). Because *auto* is compatible with a phrase naming a helper, as we just saw, the comitative continuation in (19b) does not contrast with the prefix *auto*, and the continuation is unnatural and semantically odd. However, there is no problem with (19c), where the comitative phrase contrasts with *tout seul* ‘alone’. On the other hand, *auto* may be the focus of negation if there is a contrastive agent (19d).

- (19) a. John didn’t build the house himSELF. He built it with Mary. (Spathas & al. ex. 27)  
 b. #Jean n’a pas AUTOévalué sa situation financière, il l’a évaluée avec



Jean NEG HAS<sub>aux</sub> not self-evaluate his situation financial, he it HAS<sub>aux</sub> evaluated with  
 (l'aide de) Marie  
 (the help of) Marie

‘Jean did not self-evaluate his financial situation, he evaluated it with (the help of) Marie.’

- c. Jean n’a pas autoévalué sa situation financière TOUT SEUL, il l’a  
 Jean NEG HAS<sub>aux</sub> not self-evaluate his situation financial all alone, he it HAS<sub>aux</sub>  
 (auto)évaluée avec (l'aide de) Marie.  
 (auto)evaluated with (the help of) Marie

‘Jean did not self-evaluate his financial situation alone, he (self-)evaluated it with (the help of) Marie.’

- d. Jean n’a pas AUTOévalué sa situation financière, c’est Pierre qui l’a  
 Jean NEG HAS<sub>aux</sub> not self-evaluate his situation financial, it is Pierre who it HAS<sub>aux</sub>  
 évaluée pour lui.  
 evaluated for him.

‘Jean did not self-evaluate his financial situation, it is Pierre who evaluated it for him.’

Example (19b) shows that *auto* is not anti-assistive. Example (19d) shows that *auto* generates subject alternatives, a fact compatible with a focus on the agent or, in the present case, with non-delegation.<sup>9</sup> But non-delegation is not relevant in (20) whose subjects are not agentive (cf. also (6b)). In (20a), *auto* emphasizes the fact that, perhaps contrary to expectations, the use of reusable cups is responsible for the clean-up of the city, and in (20b) *auto* emphasizes the fact that the mouth to ear of social networks is responsible for the amplification of the phenomenon.

- (20) a. l'usage inédit des gobelets réutilisables a auto-nettoyé la ville.  
 the use novel of-the cups reusable HAS<sub>aux</sub> self-cleaned the city  
 ‘the novel use of reusable cups has cleaned the city’

- b. le bouche à oreille des réseaux sociaux a auto-amplifié le phénomène.  
 the mouth to ear of-the networks social HAS<sub>aux</sub> self-amplified the phenomenon

9 *Afto* also licenses subject alternatives. This is considered by Spathas et al. (2015:1311, 1334) as being due to the non-delegative reading, which, under negation, states that the specified agent is not the agent at all. Interestingly, their formula for the non-delegative reading,  $\forall e' \forall z. (e' = e \ \& \ \text{agent}(z, e')) \rightarrow z = x$ , is equivalent to  $\forall z. \text{agent}(z, e) \rightarrow z = x$ , which is equivalent to the agent-focusing formula proposed by Mutz  $\neg \exists z (z \neq x) \text{agent}(z, e)$ . Both agent-focus and non-delegation exclude alternative agents, but their pragmatic implications are distinct.

‘the word of mouth of social networks has amplified the phenomenon’

As we will see immediately, the same is true with the reflexive reading.

## 5.2 Reflexive reading

It is not difficult to find examples of the reflexive reading stating that the agent may be helped in the realization of the event or can delegate part of the event to others :

- (21) a. Il est important d’aider l’élève à s’autoévaluer.  
it is important to help the pupil to REFL self-evaluate  
‘it is important to help the pupil evaluate him/herself’
- b. ...une lettre qu’il s’est autoenvoyée depuis la prison avec l’aide de sa mère  
a letter that he REFL BE<sub>aux</sub> self-send from the prison with the help of his mother  
‘...a letter that he sent to himself from the prison with the help of his mother’
- c. Vous avez choisi de vous autoconstruire, faites appel à notre équipe pour  
you HAVE<sub>aux</sub> chosen to RELF-2 self-build, make call to our team to  
effectuer une ou plusieurs étapes de votre projet telles que (...)  
realize one or many steps of your project like (...)  
‘You have chosen to build by yourself (your home), call on our team to realize one or  
many steps of your project, like (...) (<http://www.constructionyf.com/>)

Again, *auto* does not contrast with a comitative phrase, and (22a) is odd because there is no contrast. However, there is no problem with (22b), where the comitative phrase contrasts with *tout seul* ‘alone’:

- (22) a. #Jean ne s’est pas AUTOévalué, il s’est évalué avec (l’aide de)  
Jean NEG REFL BE<sub>aux</sub> not self-evaluated, he REFL BE<sub>aux</sub> evaluated with (the help of)  
Marie.  
Marie  
‘Jean did not self-evaluate himself, he evaluated himself with (the help of) Marie.’
- b. Jean ne s’est pas autoévalué TOUT SEUL, il s’est (auto)évalué  
Jean NEG REFL BE<sub>aux</sub> not self-evaluated all alone, he REFL BE<sub>aux</sub> (self)evaluated  
avec (l’aide de) Marie.  
with (the help of) Marie.  
‘Jean did not self-evaluate himself alone, he (self-)evaluated himself with (the help of)

Marie.’

Consider sentence (9a), repeated in (23a). It does not mean that Donald congratulates himself without assistance or without delegating the congratulations to someone else. Compared with the sentence without *auto*-prefixation (9b), the sentence stresses the fact that congratulating oneself runs counter to expectations, the normal situation being one in which someone else does the congratulations. That reading is typical of the agent-focusing reading. If *auto*, in (23a), is an agent-focusing intensifier, the sentence means that Donald congratulates himself perhaps contrary to expectations, emphasizing the responsibility of Donald as agent of the congratulations (23b).<sup>10</sup>

- (23) a. Donald s’autocongratule. (=9a)  
Donald REFL self-congratulate  
‘Donald congratulates himself’
- b.  $\lambda e$ . congratulate(donald,e) & agent(donald,e) &  $\neg\exists z (z \neq \text{donald})$  agent(z,e)

An agent-focusing interpretation of the reflexive reading explains why *auto* generates subject alternatives, since a focus on the agent generates a set of alternatives to the agent.

- (24) Guaido ne s’est pas autoproclamé président par intérim. C’est l’assemblée  
Guaido NEG REFL BE<sub>aux</sub> not self-proclaim president by interim. It is the assembly  
législative de son pays qui l’a investi de cette responsabilité.  
legislative of his country that him HAS<sub>aux</sub> entrusted of that responsibility  
‘Guaido did not proclaim himself interim president. It is the legislature of his country that  
entrusted him with that responsibility.’ (insolent.fr, 4 Feb. 2019)

A non-delegative reading of the first sentence of (24) would not be semantically appropriate. Moreover, since negation associates with focus, if *auto* were a non-delegative intensifier, we would expect the negation to negate the non-delegative reading, i.e. the sentence should presuppose that Guaido is interim president, and state that Guaido got someone to proclaim him interim president. (Cf. *John did not build the house himself* = the house was built, and John got someone else to do it for him). That is not the intended meaning of the first sentence of (24). The sentence states that Guaido did not take upon himself to proclaim himself interim president. It does not presuppose that Guaido is interim president, and it would be compatible with the continuation ‘and in fact, he is not interim president’ (in the absence of the second sentence). For instance, in the following sentence François Hollande did not get a 172% salary increase :

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10 The delightful verb ‘s’auto-pelure-de-bananiser’ (REFL self-peel-of-banana-CAUSE) in (i) created by a politician from Quebec illustrates the same thing:

(i) Il ne faut jamais sous-estimer la capacité des indépendantistes de s’auto-pelure-de-bananiser  
One must never underestimate the capacity of the independentists to slip on a banana peel that they themselves placed under their feet. (Lit : to banana-peel themselves)

The prefix emphasizes the fact that the agent, and noone else, is responsible for the event.

(25) François Hollande ne s'est pas autoaccordé, comme Nicolas Sarkozy,  
 F.H. NEG REFL BE<sub>aux</sub> not self-grant, like N.S.,  
 une augmentation de salaire de 172 % !

a increase of salary of 172%

'François Hollande did not grant to himself, like Nicolas Sarkozy, a salary increase of 172%!'

Notice that, in the first sentence of (24), Guaido, the agent of the proclaiming event, is not coindexed with theme of that event, but with the subject of a small clause complement of the verb.

(26) Guaido self-proclaim [<sub>sc</sub> himself interim\_president]

This allows us to rule out, for the reflexive reading, an analysis in which the associate of *auto* is always the theme. We reach the same conclusion by observing that *auto*-prefixed reflexive verbs, like other reflexive verbs, may involve coindexation of an agent and a goal argument (cf. also 21b).

(27) a. Les filles s' autoattribuent des performances sensiblement identiques à celles  
 the girls REFL self-attribute some performances substantially identical to those  
 qu' elles attribuent aux autres filles;

that they attribute to\_the other girls

'The girls attribute to themselves performances essentially identical to those that they attribute to the other girls.'

b. Je continue à m' autosuggérer des trucs bien.

I continue to REFL-1s self-suggest some stuff good

'I continue to suggest to myself good stuff.'

An anti-assistive interpretation is semantically odd in (27a). Anti-assistiveness would imply that the girls are not helped in attributing a performance to themselves. That is not the intended meaning of (27a). Here again, the agent-focusing reading is semantically more appropriate. With a focus on the agent, (27a) emphasizes the fact that the girls, and no one else, are responsible for attributing to themselves performances essentially identical to those that they attribute to the other girls.

(28)  $\lambda e$ . attribute(performance,e) & goal(girls,e) & agent(girls,e) &  $\neg \exists z (z \neq \text{girls})$  agent(z,e)

The contrast in (29a) between the negated passive and the negated *auto*-prefixed verb also shows that *auto* contrasts the agent of the sentence with other potential agents, as predicted by an agent-focusing reading. The sentence states that the council did not examine these questions : nobody asked it to do so, and it did not take upon itself to do so. The negated passive excludes every other agent, and the negated *auto*-prefixed verb excludes the specified agent. Anti-assistiveness is not semantically relevant here. A similar type of contrast is illustrated in (29b).

- (29) a. Le conseil constitutionnel n'a pas été saisi et ne s'est  
 The constitutional council NEG HAS<sub>aux</sub> not BEEN<sub>aux</sub> seized and NEG REFL BE<sub>aux</sub>  
 pas auto-saisi de l'examen de ces questions.  
 not self-seize of the examination of these questions.  
 'The examination of these questions was not deferred to the constitutional council, and  
 the constitutional council did not take up the matter on its own.'
- b. L'intelligence artificielle doit-elle s'auto-réguler ou se faire réguler?  
 the intelligence artificial must-3s REFL self-regulate or REFL make regulate  
 'Must artificial intelligence regulate itself or get regulated?'

We conclude that the reflexive construction is agent-focusing rather than anti-assistive.

Simply assuming that *auto* is agent-focusing, however, does not account for the intuition that, in the reflexive reading, *auto* is a reflexivizer. That is apparent in nominals, where the Reflexive Voice morpheme *se* is not present. An *autocongratulation* is the fact of congratulating oneself. In section 8.2, we will capture the reflexivizing role of *auto* by proposing that *auto* modifies the VP, yielding (30), before *v* is added to the derivation:

(30)  $\lambda e. \text{congratulate}(\text{Donald}, e) \ \& \ \neg \exists z (z \neq \text{Donald}) \ \text{agent}(z, e).$

(30) describes an event of congratulating Donald in which no agent other than Donald does the congratulations. This creates a reflexive reading, and requires the merge of an agent coindexed with the internal argument. We will show that (30) is compatible with an agent-focusing reading of the sentence.

### 5.3 Anticausative reading

Let us now turn to the anticausative reading in (13a), repeated below, where *auto* emphasizes the autonomous nature of the event :

(31) La lampe s'autoallume. (=13a)  
 'the lamp lights up by itself'

An anti-assistive modification requires an agentive event. For instance, (32) states that the lamp is the agent of itself lighting up, and that it does it without help:

(32)  $\lambda e. \text{light\_up}(\text{lamp}, e) \ \& \ \text{agent}(\text{lamp}, e) \ \& \ \forall e' \forall y. (e' \leq e \ \& \ \text{agent}(y, e')) \rightarrow y = \text{lamp}$

However, anticausatives are not agentive. Under current assumptions, no external argument is present at any stage of their derivation. Their subject is a theme, and *se* prevents the merge of the causative level containing an agent. We face the same problem with the agent-focusing modification. Both anti-assistiveness and agent-focus require an agent, but anticausatives are agent-less.

Given that, in the anticausative reading, prefixing the verb with *auto* places emphasis on the autonomous nature of the event, we would like to suggest that, in that reading, *auto* is an intensifier emphasizing the fact that, perhaps contrary to expectations, no external agent is responsible for the event. If that is correct, (31) means that the lamp lights up and that no external agent caused that event :

(33) Agent-denial modification:

$\lambda e. \text{light\_up}(\text{lamp}, e) \ \& \ \underline{\neg \exists z \text{ agent}(e, z)}$

By explicitly denying the existence of an external agent, the modification underlined in (33) forces a reading in which the event is automatic : the lamp lights up by itself. That explains why adding *tout seul/d'elle-même* ‘alone/by itself’ is rejected here, as shown in (13c). We call the modification an agent-denial one. If the modification is adjoined to the VP, it prevents the merge of an external argument. We will develop that idea in 8.3.

Recall that the phrase *tout seul* ‘alone’ was not rejected in the reflexive (22b) or agent-focusing (19c) readings. This provides an argument against treating the anticausative reading as reflexive, as would be the case in (32) or with an agent-focusing modification. The compatibility of the reflexive and agent-focusing readings with ‘alone’ shows that a focus on the agent does not exclude the existence of helpers to the agent.

To summarize, it appears that anti-assistiveness does not properly reflect the meaning of *auto*-prefixed verbs. An agent-focusing modification better represents the meaning of the *auto*-prefixed verb in sentences with the agent-focusing reading and with the reflexive reading. As for the anticausative reading, we proposed that *auto* contributes an agent-denial modification.

## 6. Anti-assistiveness and subevents

The anti-assistive formula that we have been discussing—i.e.  $\forall e' \forall z. (e' \leq e \ \& \ \text{agent}(z, e')) \rightarrow z = x$ , where  $x$  is either the agent or the theme of the main event  $e$ —refers to sub-events. According to Spathas et al. (2015:1304-5) that formula explains, on the one hand, the fact that anti-assistive intensifiers are compatible with activities and accomplishments, but not with achievements, unless the achievements have been shifted to denote *progressive achievements* (progressive achievements, being durative, contain subevents), nor with states, and, on the other hand, the fact that they allow for modifiers like *almost* or *partly* that measure out the number of subevents for which the anti-assistive modification holds. According to Spathas et al., *afto* behaves like other anti-assistive intensifiers in these respects.

A major problem with considering *auto* as an anti-assistive intensifier is precisely that anti-assistives require the main event to have subevents. Let us start with performative verbs. Performative verbs are considered achievements because they denote speech acts that take place instantaneously at the moment when the speech act is completed (Vendler 1970). Nevertheless, they accept *auto*-prefixation. This is the case with *proclamer* ‘proclaim’ in the context *proclaim oneself interim president*, illustrated above in (24). In that context, the adverbs *almost* and *partly* do not measure out a number of subevents for which anti-assistiveness holds. *Presque* ‘almost’ in (34a) states that the event of proclaiming oneself

interim president almost took place, but it didn't. That reading of *almost* is typical of achievements and other punctual events (cf. *John almost won.*) *Partiellement* 'partly' in (34b) indeed creates a durative achievement. However, the sentence does not mean that Guaido accomplished the speech act partly without help, contrary to what would be expected if *partly* measured out the number of subevents for which anti-assistiveness holds. It also does not mean that Guaido is partly interim president. The only possible interpretation that we see is that Guaido stopped speaking in the middle of the sentence, i.e. during the preparatory phase, which prevented him from accomplishing the speech act. Thus, the adverbs *almost* and *partly* modify the (preparatory phase of the) event, and not an anti-assistive intensifier.

- (34) a. Guaido s'est presque auto proclamé président par interim.  
 'Guaido almost proclaimed himself interim president.' (=he didn't do it)
- b. Guaido s'est partiellement auto proclamé président par interim.  
 'Guaido partly proclaimed himself interim president.' (=he is not interim president)

Apart from achievements, other punctual events do not involve subevents. As shown in (35), to which we may add (25), (27a) and (29a), *auto*-prefixed verbs may denote punctual event. These instantaneous events should not be compatible with anti-assistiveness, and, indeed, the examples are not interpreted as anti-assistive or non-delegative. Rather, they emphasize the fact that the agent, and no one else, is responsible for the event that affects him or her.

- (35) a. Non, Tristan Waleckx ne s'est pas auto octroyé le Prix Albert Londres.  
 No, T.W. NEG REFL BE<sub>aux</sub> not self-confer the Prize Albert Londres.  
 'No, Tristan Waleckx did not confer to himself the Albert Londres Prize'
- b. Si elle se sent en danger de mort, elle peut s'auto exploser en mille morceaux  
 if she REFL feels in danger of death, she can REFL self-explode in thousand pieces  
 'If she falls in mortal danger, she can explode herself to pieces'  
 ([www.dreamline-manga.fr](http://www.dreamline-manga.fr))
- c. Pierre s'est auto exclu de l'équipe  
 Pierre REFL BE<sub>aux</sub> self-exclude from the team  
 'Pierre excluded himself from the team'

The same holds for *auto*-prefixed verbs in the anticausative reading. Consider, for instance, (32) in the context given in (36a). The reader may have noticed that there are no subevents in the case of a lamp lighting up by itself : either a lamp is on or it is off. The lighting of a lamp is a punctual event (with the exception of neon lights, perhaps). The same is true of *s'autoéteindre* 'self-switch-off' in (36b) : either the device is switched on or it is switched off.

- (36) a. La lampe est équipée d'un détecteur lui permettant de s'autoallumer  
 the lamp is equipped of a detector it<sub>dat</sub> allowing of REFL self-light\_up  
 à chaque coucher de soleil.  
 at each set of sun  
 'The lamp is equipped with a detector allowing it to light up by itself every sunset.'
- b. L'enregistrement s'est arrêté restant en attente un temps  
 the recording REFL BE<sub>aux</sub> stopped remaining in waiting a while  
 avant de s'autoéteindre.  
 before of REFL self-switch-off  
 'The recording stopped, staying on stand-by for a while, before switching off by itself'  
 ([www.unotec.es/attachment](http://www.unotec.es/attachment))

Thus, adding *presque* 'almost' (37a) to *autoallumer* 'self-light\_up' in a context like (36a) does not measure out the number of subevents for which the lamp was the agent (overlooking the fact that an anticausative sentence has no agent). It states that the event almost took place, but it didn't, which is pragmatically odd in the context (how could one know that the event almost took place?) In the same context, the verb *autoallumer* is incompatible with *achever de* 'finish' (37b); this shows that the event is not durative.<sup>11</sup>

- (37) a. #La lampe s'est presque autoallumée au coucher du soleil.  
 the lamp REFL BE<sub>aux</sub> almost self-light\_up at\_the set of\_the sun  
 'The lamp almost lighted up by itself at sunset.' (= it didn't light up)
- b. #La lampe achève de s'autoallumer.  
 the lamp is finishing of REFL self-light\_up  
 'The lamp is finishing to light up by itself.'

We also note that *auto* may be prefixed to states:

- (38) a. La vérité c'est que je m'autodéteste.  
 The truth is that I REFL-1s self-detest  
 'The truth is that I detest myself'
- b. Cette caste s'autoadmire.  
 that caste REFL self-admire

11 *Autoallumer* is also observed with the meaning 'self-switch-on' (radio), and 'self-ignite' (inflammable gas), other contexts where it denotes punctual events.



‘That caste admires itself’ (Figaro Magazine 2004)

States are said to be incompatible with anti-assistive intensifiers because they do not involve subevents. Moreover, they are not agentive. Indeed, the sentences in (38) are semantically incompatible with an anti-assistive or non-delegative reading. The fact that the sentences are perfect shows that *auto* is not anti-assistive/non-delegative. In (38), *auto* emphasizes the fact that, perhaps contrary to expectations, the holder of the state entertains the emotion towards himself/herself. The focus is placed on the holder of the state. Here again, *auto* co-occurs with the reflexive morpheme *se*.

To summarize, *auto* is not anti-assistive. Anti-assistiveness does not properly reflect the meaning of the sentences containing an *auto*-prefixed verb. In addition, *auto* is compatible with comitatives, as well as with achievements, other punctual events, and states<sup>12</sup>.

## 7. The causative reading and low attachment

Labelle (2009) observed that, in some sentences with *auto*-prefixation, the agent of the sentence is interpreted as causing an autonomous event. This is illustrated in (39). There is no reflexive morphology because the agent and the theme are distinct entities.

- (39) a. Pour empêcher le vaisseau d’être capturé par un ennemi, il est possible de l’autodétruire.  
to prevent the ship from being captured by an enemy, it is possible to it self-destroy  
‘To prevent the ship from being captured by an enemy, it is possible to self-destroy it.’
- b. Tu peux choisir d’autoeffacer le fichier.  
you-sg may chose to self-erase the file  
‘You may chose to self-erase the file.’
- c. Vous pouvez autoconfigurer votre système.  
you-pl may self-configure your system  
‘You may self-configure your system.’
- d. Comment puis-je autosupprimer un enregistrement lorsque la date est expirée?  
how can I self-delete a recording when the date is expired  
‘How can I self-delete a recording when the date is expired?’

Consider the sentence *Jean autodétruit le vaisseau* (lit. ‘Jean self-destructs the ship’), a simplified variant of (39a). The interpretation of the sentence is *Jean CAUSE [the ship self-destroy]*, and not *Jean*

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12 The annex of Dugas’s (1992) paper on *auto*-prefixation includes various performative verbs (e.g. autoadjuger ‘self-award’, autoapprouver ‘self-approve’, autoattribuer ‘self-attribute’, autoconférer ‘self-confer’, autoexempter ‘self-exempt’, autonominer ‘self-nominate’, autoréélire ‘self-reelect’, autopardonner ‘self-forgive’), other punctual events (autoescamoter ‘self-hide with a sleight of hand’, auto-féconder ‘self-impregnate/fertilize’, autoidentifier ‘self-identify’, autolocaliser ‘self-localize’, autoatteindre ‘self-reach’), and stative verbs (autoaduler ‘self-adulate’, autoexécrer ‘self-detest’, autosuffire ‘self-suffice’).

[*destroy the ship*] without help, nor Jean, and noone else, [*destroy the ship*]. *Auto* modifies the destruction event, and it is unrelated to the external argument. As shown by the examples, the existence of intelligent systems seems to have favored the development of this construction.

Although this is debatable, we feel that the verb *autofinancer* ‘self-finance’ is also compatible with a causative interpretation. In (40), the French railway company SNCF avoids being thrown into a deficit by creating a situation where the money coming in through its operations finances the costs of the operations. It seems to us that, in that context, the causative interpretation in (40b) better represents the meaning of the clause than an anti-assistive or an agent-focusing one.

- (40) a. La SNCF autofinance ses opérations.  
           the SNCF self-finances its operations
- b. La SNCF CAUSE [ses opérations s’autofinancent]  
           The SNCF CAUSE [its operations finance themselves].

The causative reading clearly shows that *auto* attaches low in the structure because it modifies the caused event, and not the causing event. In these examples, *auto* cannot modify the grammatical Voice head, because it has no connection with the external argument of the causing event.<sup>13</sup>

## 8. Accounting for *auto*-prefixation

In this section, we explore an analysis of *auto*-prefixation. We deliberately keep the discussion informal. Various syntactic constructions and semantic approaches to the facts are possible, and we will leave for future research the choice of the most appropriate ones. Our aim is more modest. We wish to show that the various readings of *auto*-prefixed verbs could be accounted for if the level at which *auto* is merged determines and constrains the interpretation of the predicate.

We assume the analysis of Harley (2013). Like many other authors (e.g. Pylkkänen 2002, Labelle & Doron 2010, Bruening 2013, Merchant 2013, Legate 2014, Wood 2015, Anagnostopoulou 2016), Harley argues that there is a need to distinguish two distinct heads, *v* and Voice. Based on data from the Hiaki language, Harley (2013) proposes that the *v*P may include in its semantic representation a variable for the external argument, but it does not introduce the external argument in syntax. It is the role of Voice to introduce the external argument in syntax. Thus, “even in cases where it is clear that there is a separate ‘little *v*’ whose semantic contribution is solely to express a causal relationship between an external argument and an embedded event, the external argument is not introduced in the specifier of that little *v*, but rather in the specifier of another, separate functional projection above that, whose only reason for existence is apparently to accomplish this introduction.” (Harley 2013 : 38).

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13 Paul Hirschbühler (p.c.) pointed out to me that (i) may mean that, by not participating in the meeting, Pierre caused that he was penalized, and stresses the fact that nobody but himself is responsible for the penalty that he suffered.

(i) En ne participant pas à la réunion, Pierre s’est autopéalisé.  
       by not participating in the meeting, Pierre REFL BE<sub>aux</sub> self-penalized

This causative reading is distinct from the one exemplified in (39). The analysis in 8.2 may account for it, if the meaning is Pierre caused [himself be penalized].

Accordingly, we distinguish two levels of derivation : 1) a head introducing the external argument in the semantics; we assume that this is the role of *v*; according to Kratzer (1996) this is done via event identification, but there are alternatives, e.g. Bruening (2006, 2013); 2) a grammatical Voice head determining the syntactic realization of the external argument. We assume that the grammatical Voice head merged above *vP* selects a phrase with an unsaturated agent role (see Bruening 2013 for a similar approach concerning the Passive). The type of Voice head determines the syntactic realization of the agent.

- (41) a. Active Voice is the default voice. It provides a specifier in which the external argument may be merged. The DP saturates the predicate by identifying the agent.
- b. Passive Voice introduces existential binding over the agent variable in short passives (e.g. Bach 1980, Keenan, 1985, Bruening 2013).
- c. Reflexive Voice selects a phrase containing a variable corresponding to an accusative or dative object in addition to the variable bearing the agent role. It marks the predicate as reflexive by specifying that the missing object is the same entity (close to the same in near-reflexive contexts) as the agent (Labelle 2008).

Let us see how these assumptions account for the various readings discussed above.

### 8.1 Agent-focusing reading

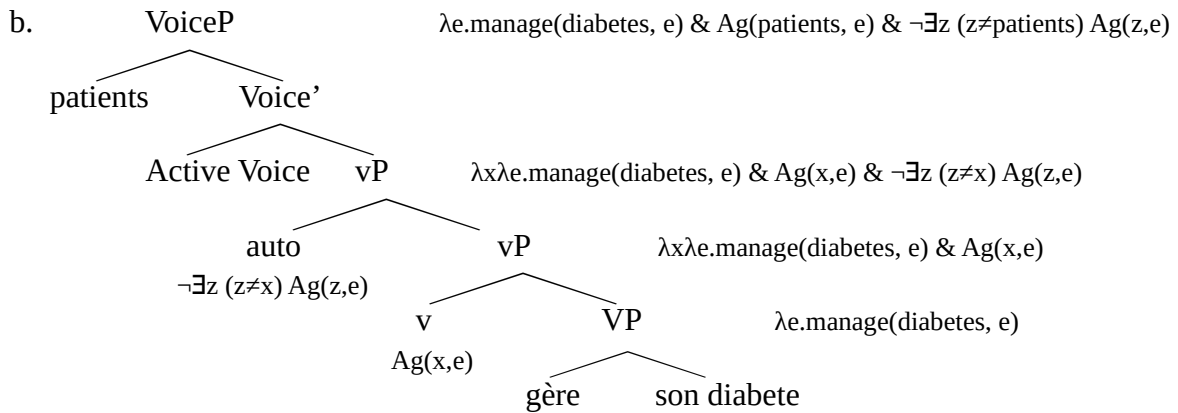
In the agent-focusing reading, the intensifier *auto* selects a transitive verb and it creates a focus on the agent. Let us assume that *auto* is a modifier of type  $\langle e\langle st \rangle, e\langle st \rangle \rangle$ <sup>14</sup>: it combines with an open predicate to yield an open predicate, and its associate is the free variable within the predicate.

The derivation of (42a) could be as in (42b). The VP describes an event of managing one's diabetes. The *v* head adds a variable bearing the agent role. *Auto* adjoins to *vP*, and its associate is the *x* variable corresponding to the agent. It introduces focus on the agent by adding a modification stating that no other member of a contextually relevant set of alternatives is the agent. The referent of the agent is introduced in the specifier of Active Voice.

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<sup>14</sup> *e* is the type of individuals, *s* is the type of events, and *t* is the type of truth values.

(42) a. Les patients autogèrent leur diabète. (=6a)



The sentence states that the patients, and no other contextually relevant agent, are responsible for managing their diabetes.

If an nP node dominated the constituent containing *auto*, we would have the agent-focusing nominal *l'autogestion du diabète* 'the self-management of diabetes'. The agent role of the nP could be either existentially bound, or expressed in a by-phrase. There would be no ActiveVoice projection on top of nP.

## 8.2 Reflexive reading

Let us now turn to the reflexive reading. Labelle (2008) argued that, in reflexive sentences, *se* is a Reflexive Voice head that combines with an open predicate containing a variable for an accusative or dative object, and it marks the predicate as reflexive. This is expressed with the formula in (43). The *y* variable corresponds to the missing object, which is generally the theme or the goal of the event, but it could also be, for instance, the accusative subject of a small clause complement.

(43)  $\lambda P \lambda x \lambda y \lambda e [P(y, e) \& \text{agent}(x, e) \& y = f(x)]$

In (43), the equation  $y = f(x)$ , stating that the referent of the object is a function of that of the agent, allows for the near-identity of the two entities in some reflexive clauses. The two-place predicate in (43) reduces to a one-place predicate by replacing *y* by  $f(x)$ :

(44)  $\lambda P \lambda x \lambda e [P(f(x), e) \& \text{agent}(x, e)].$

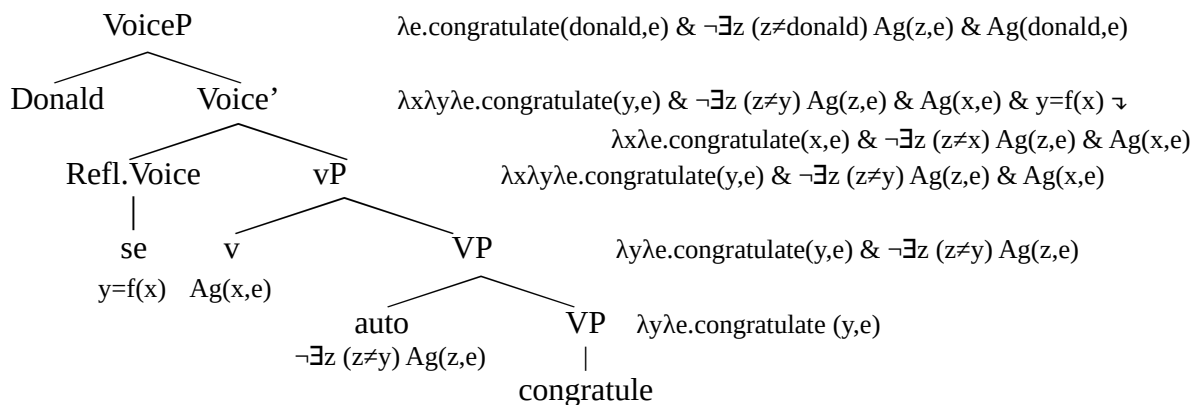
When there is identity between the object and the agent,  $f(x) = x$ , yielding the standard reflexive formula :

(45)  $\lambda P \lambda x \lambda e [P(x, e) \& \text{agent}(x, e)]$

As mentioned in section 5.2, a simple agent-focus reading of *auto* in the reflexive reading does not express the intuition that *auto* is a reflexivizer. The reflexivizing role of *auto* may be captured by assuming that the modification introduced by *auto* forces the merge of an agent coreferential with the *y* variable corresponding to the object of the reflexive. This is obtained by supposing, with Sportiche

(2014:117), that *auto* modifies the VP. Because we distinguish *v* and Voice, we suppose, in (46), that *v* introduces the Agent, and *se* under Reflexive Voice introduces the equation  $y = f(x)$ .<sup>15</sup>

(46) Donald s'autocongratule. (=9a)



While, in (42), the associate of *auto* was the *x* variable corresponding to the agent, here it is the *y* variable corresponding to the object. The modification introduced by *auto* states that there is no agent to the event other than the entity represented by the *y* variable, thereby introducing a condition of coreference between the agent and the object. Thus, in (46), the VP modified by *auto* describes an event of congratulation of *y*, in which no agent other than *y* is responsible for the event. If VP (or *v*P) were dominated by nP, the nominal would be interpreted as reflexive : *autocongratulation* ‘self-congratulation’. Here, we have an agentive verb, and *v* introduces the agent variable. The only way to end up with a coherent interpretation is then to coindex the *x* and *y* variables using the Reflexive Voice morpheme *se*, which introduces the equation  $y=f(x)$ . Because *auto* states that the agent is no other than *y*, the formula reduces to  $y=x$ , and we may use *x* instead of *y* everywhere. This yields the one-place formula  $\lambda x\lambda e.congratulate(x,e) \ \& \ \neg\exists z (z\neq x) \ Ag(z,e) \ \& \ Ag(x,e)$ . At the level of VoiceP, the constituent merged in the specifier of Voice is substituted for the *x* variable. The sentence states that Donald, and noone else, congratulates himself. Because the sentence is reflexive, the modification introduced by *auto* is agent-focusing at the sentence level, thereby accounting for the agent-focusing properties of the reflexive reading discussed in section 5.2.

This analysis is in line with Labelle’ (2008) solution summarized in the introduction : the modification added by *auto* forces the merge of the reflexive voice head *se* to ensure the coreference between the agent variable introduced by *v* and the *y* variable carried over from the VP level.

### 8.3 Anticausative reading

For anticausative sentences, let us assume that *auto* adds the agent-denial modification underlined in (47b) (cf. section 5.3):

(47) a. La lampe s'autoallume. (=13a)

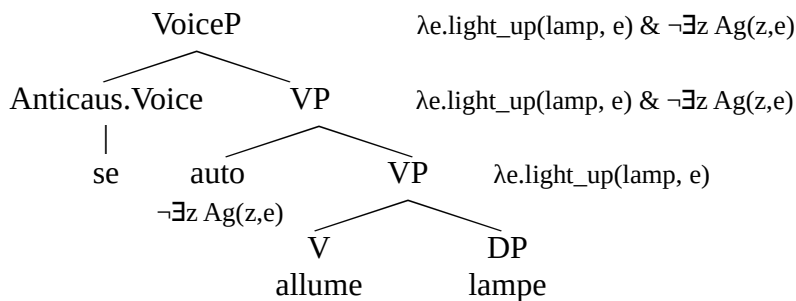
15 In Labelle (2008), *se* introduced both the agent and the equation ensuring the coreference of the agent with the internal argument.

‘the lamp lights up by itself’

b.  $\lambda e. \text{light\_up}(\text{lamp}, e) \ \& \ \neg\exists z \text{agent}(e, z)$  (=33)

If something like (47b) is correct, *auto* modifies an anticausative predicate with no free variable. Instead of being of type  $\langle e \langle st \rangle \rangle$ ,  $e \langle st \rangle \rangle$ , it is of type  $\langle st, st \rangle$ , and it could combine, for instance, via (a variant of) event identification. Instead of denying the existence of an agent different from its associate, *auto* states that there is no agent to the event. We therefore assume that *auto* modifies VP, and that it is incompatible with the merge of a *v* head that would introduce an agent to the event. The structure in (48) assumes that *se* is the head of an Anticausative Voice projection that selects a VP and allows the movement of the theme to its specifier or to a higher head (cf. e.g. Labelle & Doron 2010 for a similar analysis of anticausatives).

(48) La lampe s’autoallume. (=13a)



By emphasizing the fact that the lamp does not light up as a result of some action by an external agent, *auto* creates a reading where the event affecting the theme is autonomous.

If an nP node dominated the higher VP(/√P), we would have a nominal denoting an automatic event (*autoallumage*), and there would be no Voice projection.

#### 8.4 Causative reading

Finally, consider the case of the causative reading. As far as we can see, the causative reading is only possible with verbs that enter the anticausative reading, whose only argument is a theme. Adding an external cause to an agentive verb with a reflexive reading appears impossible:

(49) \*Jean a autocongratulé Paul.

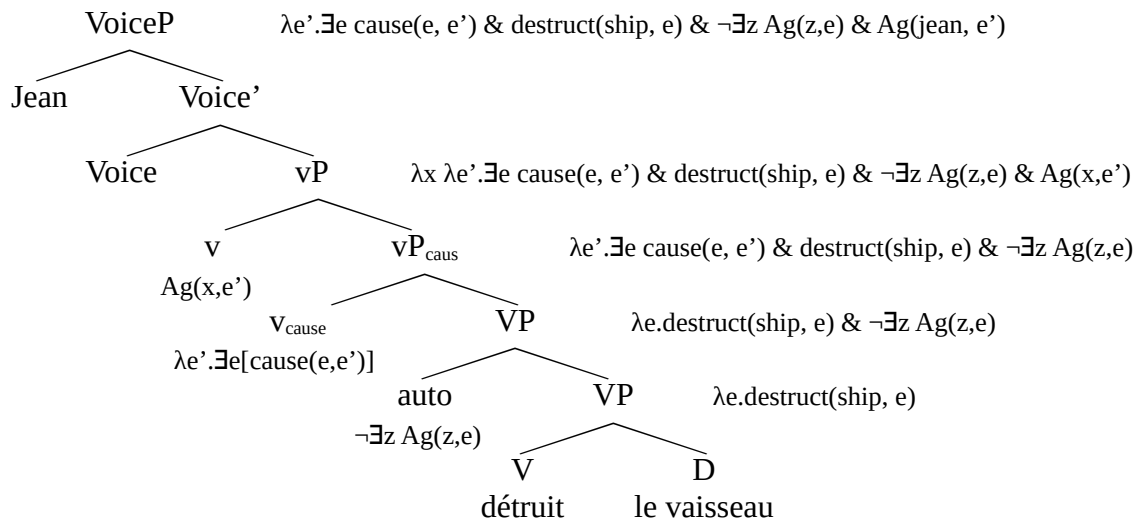
Jean HAS<sub>aux</sub> self-congratulated Paul

Intended meaning : Jean CAUSE [Paul congratulate himself].

If this is correct, we have here another argument in support of the idea that the anticausative reading is not to be translated as a reflexive sentence, because we would not understand why the causative reading is possible in one case and not in the other. If the causative reading is built on an anticausative construction, the ungrammaticality of (49) is not unexpected.

The derivation of the causative reading is illustrated in (50). The VP of (50) is similar to that of the anticausative reading in (48). The modification added by *auto* stresses the fact that the destruction event is autonomous. A *v* head introducing a causing event is merged above VP, and a second *v* head introduces the agent of the causing event. (We favor here an analysis in which each head introduces one element of meaning, but of course, other options are possible).

(50) Jean autodétruit le vaisseau. (cf. 39a)



Crucially, the agent variable introduced by *v* is the agent of the causing event (*e'*), and not of the caused event (*e*). *Auto* denies the existence of an agent to the destruction event (*e*), but it does not prevent the merge of an agent to a higher causing event (*e'*). The sentence means that Jean caused an autonomous event of ship destruction : once the destruction is launched, it unfolds automatically.

To summarize, we explored an approach to *auto*-prefixation in which *auto* is an intensifier that introduces in the semantics an agent-focusing modification (denying the existence of alternative agents) or a modification emphasizing the fact that the event is not due to an external agent (agent-denial). The level at which *auto* is merged and the presence or not of an associate to *auto* (an appropriate variable within the constituent that *auto* modifies) determines the type of modification that is brought about by the morpheme, and the final interpretation of the clause. Various alternatives to the above structures are possible, as well as various semantic approaches to the facts. We do not claim to have a definitive analysis, but we hope to have shown that a few simple assumptions may go a long way towards accounting for *auto*-prefixation.

## 9. Conclusion

The present paper explored the contribution of the French prefix *auto* to a clause. Comparing the behavior of *auto*-prefixed verbs to that of the Greek morpheme *afto*, we concluded that the analysis of *afto* proposed by Spathas et al. (2015) could not be transposed to French. We discussed evidence that the French prefix *auto* is not a modifier of grammatical Voice. Rather, the behavior of *auto*-prefixed verbs is best accounted for if *auto* is attached low in the structure, below the grammatical Voice head.

In addition, there are problems with an anti-assistive approach to *auto*. An agent focusing intensification better represents the meaning of the transitive and reflexive sentences, and we suggested that an agent denial one could be appropriate in the case of anticausatives.

We proposed a tentative analysis of *auto*-prefixed verbs in which the agent is severed from the verb and introduced by *v* in the semantics, but it is not syntactically realized at that level. Within the *vP/VP* projection, the prefix *auto* introduces a modification stating that no agent, or no agent other than *auto*'s associate, is responsible for the event, the exact contribution of *auto* depending on the constituent that it modifies. If the present solution is on the right track, semantic reference to agents is possible below Voice, even though Voice is responsible for the syntactic realization (or not) of the agent, thereby providing support for approaches distinguishing *v* and Voice.

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