

ARTICLE

The French intensifier *auto*, and the roles of *v* and Voice in introducing agents

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Abstract

The paper focuses on the syntax and semantics of the French verbal prefix *auto*. It is proposed that *auto* is an intensifier stating that no agent other than the one specified in the clause (agent-focusing), or, in anticausative clauses, no agent (agent-denying), is responsible for the event. Syntactically, *auto* merges with a verbal projection, and the nature of the constituent to which it attaches determines and constrains the interpretation of the clause. The proposed analysis of *auto* provides support for generative approaches in which a *v* head introduces the external argument role, while a grammatical Voice head determines its syntactic realization.

Keywords: *auto*-prefixation; Voice; 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 and Reuland (2016):

- (1) Jean s' autoanalyse.
Jean REFL self-analyzes
'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' in (2a) (denoting events *e* in which *x* analyzes *y*) into a one-place reflexive verb (2b-c) (*s'analyser*, *autoanalyser* denote events *e* in which *x* analyzes *x*).

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

The addition to the verb of one of the two morphemes should bleed the possibility of adding the second one: since *autoanalyser* in (2b) is reflexive and monoargumental, it is not a proper input to the reflexive clitic *se*.

In an attempt to solve this problem, Labelle suggested that 1) *auto* is a semantic reflexiviser stating that the agent¹ of the event is the same entity as its object, and 2) the Reflexive Voice head *se* introduces the agent in syntax when it is coindexed with an accusative or dative object. If *se* were not present, the external argument introduced by Active Voice would not be coreferential with the object, in contradiction with the meaning of *autoanalyser*. Alexiadou (2014) rejected this solution, arguing that, if the agent is introduced by Voice as argued by Kratzer (1996), the root *autoanalyser* cannot contain a variable for the agent, as in (2b). Nevertheless, a number of authors have stressed the need to distinguish two distinct syntactic heads often associated with the external argument, Voice and *v*, with divergences as to the exact roles of these two heads (a.o. Alexiadou et al. 2015, Anagnostopoulou 2016, Bruening 2013, Harley 2013, Labelle and Doron 2010, Legate 2014, Merchant 2013, Pyllkänen 2008, Wood 2015). We will adopt, in section 7, a view found in Labelle and Doron (2010) and Harley (2013) that a *v* head introduces an agent variable, while Voice determines the syntactic realization of the agent, and we will show how this approach can account for the constructions involving *auto*-prefixation.

On another front, Spathas, Alexiadou, and Schäfer (2015) proposed an interesting analysis of the Greek prefix *afto* ‘self’. In Greek, naturally disjoint verbs — denoting events where the agent is normally disjoint from the theme — with non-active morphology (NACT) are by default interpreted as passive. *Afto* attaches to these verbs to produce a reflexive interpretation.

- (3) I Maria *afto*-katijori-thike.
 the Mary.NOM self-accused-NACT.3SG
 ‘Mary accused herself.’ (Spathas et al. 2015, ex. 1)

Spathas et al. analyze *afto* as a Voice modifier contributing an anti-assistive intensification. *Afto* combines with Middle Voice Phrase (NACT is the morphological exponent of Middle Voice) and adds a modification meaning roughly ‘without help’. Example (3) is argued to have the meaning in (4). The modification carried by *afto* is in boldface; the part of (4) that is not in bold corresponds to the interpretation of the predicate in the Middle Voice, which existentially binds the external argument.²

¹‘Agent’ is used throughout this paper as a cover term for the role of the external argument of eventive predicates. To disambiguate, we will use the expression ‘volitional agent’.

²Technically, *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. 2015, ex. (135)):

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

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

According to (4), (3) describes an event e of accusing Mary performed by some agent x and states that, for every sub-event e' of the accusation event, Mary was the agent of the sub-event. Since Mary accomplished every sub-part of the event, she acted without help. Because the anti-assistive modification associates with the theme, it creates a reflexive interpretation: in every sub-event of the event of accusing Mary, Mary is the accuser.

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, *auto* being anti-assistive, and *se* marking the clause as reflexive. We will argue, however, that anti-assistiveness, which we assume is correct for Greek, does not account for the French morpheme. *Auto* finds its origin in ancient Greek, but we cannot simply presume that, synchronically, it has the same properties as *afto* in modern Greek. In fact, the productive prefixation of *auto* to verbs is a new development in French: a search with Google's Ngram Viewer (books.google.com/ngrams) for the infinitive of the verbs quoted in the present paper shows that those that are attested see their frequency rise above zero only after 1945.³ We will argue that, in French, 1) *auto* does not modify Voice, but a verbal projection, and 2) *auto* is indeed an intensifier, but not an anti-assistive one. It is agent-focusing or agent-denying, depending on the phrase that it modifies.

We will first discuss the various constructions in which *auto* occurs. Then, we will argue that *auto* merges lower than Voice and is not anti-assistive. Finally, we will sketch an analysis of *auto* in the different constructions identified.

2. READINGS OF AUTO-PREFIXED VERBS

Mutz (2004, 2011) distinguished three different readings of French *auto*-prefixed nominals: a reflexive one, an agent-focusing one, and an anticausative one. The same readings apply to verbal predicates, and we will use verbs to exemplify them.⁴

2.1. Reflexive reading

The reflexive reading was illustrated in (1). Another example is presented in (5a). Both (5a) and (5b) denote events of congratulating Donald in which Donald is the agent (6), but, intuitively, (5a) is an intensified version of (5b), somewhat like (5c), where *lui-même* emphasizes the fact that the object is indeed the same as the agent (Labelle 2008).

³Peytard (1969) counted 4 verbs starting with *auto* in the 1924 edition of the Petit Larousse dictionary. For three of them the base is not a verb (*autographier* 'to autograph', *automatiser* 'to automate', *autopsier* 'to autopsy'); the last one, *autocopier* 'to photocopy', was removed from the dictionary in 1952.

⁴Throughout the paper, the French examples are simplified versions of attested examples or modifications of the original examples.

- (5) a. Donald s'autocongratule.
Donald REFL self-congratulate
b. Donald se congratule.
Donald REFL congratulate
c. Donald se congratule lui-même.
Donald REFL congratulates himself.
'Donald congratulates himself'
- (6) λe. congratulate(e,donald) & agent(e,donald)

We will argue that the intensification associated with *auto* is agent-focusing, a notion defined in 2.2.

The productivity of *auto*-prefixation is illustrated by the delightful verb *auto-pelure-de-banaiser* (self-peel-of-banana-V), apparently created by a politician from Quebec:

- (7) Il ne faut jamais sous-estimer la capacité des indépendantistes
One must never underestimate the capacity of the independentists
de s'auto-pelure-de-banaiser
to self-banana-peel (i.e. to put a banana peel under their own feet.)

The reflexive object is not always a theme. It may be a goal (8a) or an applicative object (8b) (Labelle 2008):

- (8) a. Non, Tristan Waleckx ne s'est pas autooctroyé
No, Tristan Waleckx NEG REFL BE_{aux} not self-confer
le Prix Albert Londres.
the Prize Albert Londres.
'No, Tristan Waleckx did not confer to himself the Albert Londres Prize.'
- b. Rien de tel que de s'autocasser la gueule en
nothing such than to REFL self-break the mouth while
accusant le patron de sévices corporels
accusing the boss of abuse bodily
'Nothing like breaking your own neck while accusing the boss of physical abuse.'
- (Here *auto* combines with the idiom *casser la gueule* (à x).)

2.2. Agent-focusing reading

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

- (9) a. Les patients autogèrent leur diabète.
The patients self-manage their diabetes
b. Les habitants du village autoconsommement leur électricité.
The inhabitants of the village self-consume their electricity

- c. Cette administration autojustifie son existence par des
 this administration self-justifies its existence by some
 empilements de réglementation
 stackings of regulations
 'This administration self-justifies its existence by piling up regulations.'

As shown in (10), passivization is allowed:

- (10) a. Le chantier est autogéré par le client.
 the construction_site is self-managed by the client
 b. L'apprentissage est autorégulé par l'apprenant.
 The learning is self-regulated by the learner

In (9a), the meaning of *auto* could be rendered by *par eux-mêmes* 'by themselves' or by the post-verbal *eux-mêmes* 'themselves'. Contrary to the adnominal intensifier *lui-même* 'himself', both *auto* and (*par*) *lui-même* '(by) himself' are compatible with an indefinite quantified subject and are not obligatorily stressed:

- (11) a. Plusieurs patients autogèrent leur diabète.
 'Many patients self-manage their diabetes.'
 b. Plusieurs patients gèrent leur diabète eux-mêmes
 /par eux-mêmes.
 'Many patients manage their diabetes themselves
 /by themselves.'
 c. *Plusieurs patients eux-mêmes gèrent leur diabète.
 Many patients themselves manage their diabetes

Despite these similarities between *auto* and (*par*) *lui-même*, these expressions are not interchangeable: in (9b) *auto* could be replaced by *eux-mêmes* 'themselves' (post-verbal), but not by *par eux-mêmes* 'by themselves'; in (9c) *auto* could not be replaced by (*par*) *elle-même* '(by) itself_{fem}'. This is a first indication that *auto* is not anti-assistive.

Mutz (2004, 2011) analyzes *auto* as an agent-focusing morpheme in this reading (also Castella 2010 for Italian). In essence, a focus on a constituent places emphasis on the constituent by generating alternative propositions in which the element in focus is replaced with others relevant in the context, and the speaker states that every alternative is false, contrary to what might be expected otherwise (Rooth 1992, 1996). A focus on the agent means that the agent, and no one else, is responsible for the event, emphasizing the role of the agent as being the entity responsible for the event. In the formula in (12), which is a transposition of that used by Mutz (2004),⁵ the part in bold expresses the focus on the agent contributed by *auto*.

⁵The formula used by Mutz (2004:367, ex. 31) for the noun *autofinancement* 'self-financing' is the following:

'autofinancement: $(\lambda y) \lambda e [x \text{ CAUSE (BECOME (FINANCÉ } (y)))] (e) \ \& \ \gamma \text{ kontig [} =\textit{contiguous}] \ x \ \& \ (\neg \exists z (z \neq x) \ z \text{ finance } y) \ (\text{wobei } z \text{ aus der alternativen Menge zu } x \text{ gegriffen ist}) [=where } z \text{ is taken from the set of alternatives to } x].'$

- (12) Les patients autogèrent leur diabète:
 λe . manage(e ,diabetes) & agent(e ,patients) & contiguous (diabetes,
 patients) & $\neg\exists z(z \neq \text{patients})$ agent(e,z)
 (where z is a member of a contextually relevant set of alternatives to which the
 patients belong)

(12) describes an event of managing the diabetes whose agent is the patients and no one else. Note that Mutz proposes that there is a relation of contiguity between the object and the agent. She explains 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 agent-focusing construction is transitive, and that the object is often accompanied by a possessive determiner referring back to the agent (Dugas 1992), as can be seen in (9). If we assume that coreference is an extreme case of contiguity, this condition is satisfied in the reflexive reading. Combined with the agent-focusing condition, the contiguity condition tells us that *auto* may be attached to a verb if one wants to stress the fact that the event affecting the object is performed by an entity bearing a close relation to it, contrary to what might be assumed otherwise. In the present paper, we will leave the contiguity condition to the side, and focus our attention on the highlighted agent-focusing modification, which we assume, pending further research.

2.3. Anticausative reading

In the anticausative reading, *auto* attaches to an anticausative verb. The verb *allumer* in (13) is a verb entering the causative/anticausative alternation.

- (13) a. Fred allume la lampe.
 Fred lights up the lamp
 b. La lampe s'allume.
 the lamp SE light_up
 'The lamp lights up.'

In the transitive variant (13a), the external argument causes a change of state affecting the object; the anticausative variant in (13b) describes the change of state event:

- (14) [Fred CAUSE [lamp lights up]] \leftrightarrow [lamp lights up]

Se in (13b) is a Voice head that we will call Anticausative Voice and will gloss as SE.⁶ Since the 1980's it is generally assumed that *se* prevents the merge of the causative level (cf. a.o. Burzio 1986 for Italian, Labelle 1992 for French; for recent discussions, cf. Alexiadou et al. 2006, 2015, Embick 2004, Horvath and Siloni 2011, 2013, Rappaport Hovav and Levin 2012, Schäfer 2008, 2009, Schäfer and Vivanco 2016).

⁶The label 'Anticausative Voice' is used here as a purely descriptive label. Alexiadou et al. (2015:98 ss) and Schäfer (2008) argue that the Voice head is Expletive.

While (13b) simply asserts the change of state event, in (15), *auto* places emphasis on the autonomous nature of the event affecting the theme.

- (15) La lampe s'autoallume.
 the lamp SE self-light_up
 'The lamp self-lights up.'

La lampe s'allume 'the light lights up' does not exclude the intervention of a person who turned the lamp on. It could be said by a repairman: *Votre lampe est réparée. Voyez, quand j'appuie sur le bouton, la lampe s'allume* ('Your lamp is repaired. Look, when I press the button, the lamp lights up'). The prefix *auto* would not be possible in that context. The meaning of *auto*, in (15), resembles that of *de lui-même* 'by itself' (feminine *d'elle-même*):

- (16) La lampe s'allume d'elle-même
 the lamp SE light_up of itself
 'The lamp lights up by itself.'

Adding *d'elle-même* to (15) is felt as redundant⁷:

- (17) #La lampe s'autoallume d'elle-même.
 the lamp SE self-light_up of itself
 'The lamp self-lights up by itself.'

However, *auto* differs from *de lui-même*. While *de lui-même* excludes the intervention of a causer, we will see in section 6 that *auto* does not exclude causers. We propose that its role is to emphasize the autonomous nature of the event affecting the theme.

The anticausative construction is productive. It is attested with a wide variety of verbs describing an autonomous change of state undergone by an entity. Here is a small sample of the examples we collected:

- autoatrophier: la racine s'autoatrophie 'the root self-atrophies'/le capitalisme est un système qui s'autoatrophie 'capitalism is a system that self-atrophies'
- autodétruire: leur système politique s'est autodétruit 'their political system self-destroyed'
- autoéteindre: le dispositif s'est auto-éteint 'the device self-turned-off'
- autoorganiser: le chaos originel du Big Bang serait en train de s'autoorganiser 'the original chaos of the Big Bang would be self-organizing'
- autoréaliser, autoannuler: les prophéties peuvent s'autoréaliser ou au contraire s'autoannuler 'prophecies may self-realize or on the contrary self-annulate'
- autoreconstituer: le capital du crédit s'autoreconstitue 'the credit capital self-reconstitutes'

⁷Cf. Alexiadou et al. (2006:204) for an analysis of *by itself* as meaning 'no particular cause', and for the observation that *by itself* is marginal with internally caused predicates because it is redundant. On this topic, cf. Chierchia (2004), Pyllkänen (2008:130), Alexiadou et al. (2015:21, 75), Schäfer and Vivanco (2016).

- autoréguler: le cycle normal des eaux et des températures s'autorégule autour d'un point d'équilibre 'the normal cycle of water and temperatures self-regulates around a point of equilibrium'
- autorésorber: le chômage s'autorésorbe 'unemployment self-reduces'
- autostériliser: l'urine exposée au soleil s'autostérilise 'urine exposed to the sun self-sterilizes'

We also observed *auto*-prefixed inchoative verbs not marked with *se*:

- (18) a. Ce fusible peut autofondre lorsque le courant est trop élevé.
 this fuse may self-melt when the electric_power is too high
- b. Nos observations confirment que le produit autocristallise
 our observations confirm that the product self-crystallizes
 systématiquement dans quatre situations ...
 systematically in four situations
 'Our observations confirm that the product systematically self-crystallizes
 in four situations ...'

For recent analyses of unmarked anticausatives, see Schäfer (2008), Martin and Schäfer (2014), Alexiadou et al. (2015).

3. PLACE OF ATTACHMENT AND VOICE DEPENDENCY

In Greek, *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. While Spathas et al. (2015) attach *afto* to Voice, Embick (1998, 2004) attaches it to the verbal root. In French, *auto* is always affixed on the lexical verb, whereas the Voice head *se* frequently surfaces isolated from it, to the left of the auxiliary and of intervening adverbs:

- (19) Jean s' est souvent autoanalysé.
 Jean REFL BE_{AUX} often self-analyzed
 'Jean often analyzed himself.'

Therefore, unless there are compelling reasons to think otherwise, it is best to analyze *auto* as attached to the lexical verb, and *se* a Voice head merged above *vP/VP*. This yields the derivation *analyser* > *autoanalyser* > *s'autoanalyser*, which also holds for anticausatives.

Moreover, Spathas et al. (2015) argue that *afto* selects a Middle Voice projection because it attaches productively only to verbs with non-active morphology (Alexiadou 2014). In French, the three constructions discussed are productive, and there is no dependency relation between *auto* and some particular Voice. In the agent-focusing reading, *auto* cooccurs with Active Voice, and is compatible with Passive Voice. In the reflexive and anticausative readings, *auto* cooccurs with *se*, heading respectively Reflexive Voice and Anticausative Voice. Thus, there is no reason to assume that *auto* selects and modifies a Voice projection.

The fact that the three readings of *auto* are observed on nominals (Mutz 2004, 2011) also shows that *auto* attaches low (here within a nominal projection), rather than selecting the grammatical Voice head involved in active, passive, reflexive and anticausative clauses:

- (20) a. Agent-focusing reading:
 l'autoanalyse des données financières par un usager
 the self-analysis of_the data financial by a user
 'the self-analysis of financial data by a user'
- b. Reflexive reading:
 le discours d'autocongratulation de Marc
 the speech of self-congratulation of Marc
 'Marc's self-congratulatory speech'
- c. Anticausative reading:
 l'autoextinction de l'appareil
 the self-cutout of the device

We will see in section 7 that our analysis extends to nominals.

4. ANTI-ASSISTIVENESS AND AUTO-PREFIXATION

In this section, we ask whether the meaning of French *auto*-prefixed verbs is adequately characterized by anti-assistiveness.

Spathas et al. (2015) argue that their anti-assistive formula holds for any anti-assistive modifier, including *himself* in sentence final position:

- (21) a. John built the house himself.
 b. λe . build(e , house) & agent(e , john) & $\forall e' \forall z$. ($e' \leq e$ & agent(e' , z) $\rightarrow z = \text{john}$)
 (Spathas et al. 2015, p. 1304, ex. (34)-(35))

(21b) states that John is the agent of a house-building event, and he is the agent of every sub-event of that event. The difference between *himself* and *afto* is that *himself* associates with the agent of the event, whereas *afto* associates with the theme (cf. section 1).

The authors point out that the anti-assistive formula covers a non-assistive reading ($e' < e$): the associate of the anti-assistive morpheme accomplished every sub-part of the event, therefore he/she did not get help, as well as a non-delegative reading ($e' = e$): the associate of the anti-assistive morpheme did not get someone else to do the action for him/her. In its non-delegative reading, (21a) states that John did not delegate the house-building event to someone else.

But what is an assistant? Eckardt (2001:402) provides a definition. Her formula for the non-assistive reading of German *selbst*, similar to *himself* in (21), is $\neg \exists x$.ASSIST(e)(x): there is no x such that x ASSIST in e . ASSIST is defined 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'. Like instruments, ASSIST applies to predicates sortally restricted to events having a volitional agent (+m, 'mental state', in Reinhart 2003).

4.1. Agent-focusing reading

Clearly, if a morpheme is anti-assistive, it should not be compatible with a phrase naming an assistant. However, in the agent-focusing reading of *auto*, the agent may be helped in the realization of the event:

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

We argue that *auto* is not anti-assistive, but agent-focusing. An agent-focusing expression states that the external argument is responsible for the event, contrary to other contextually relevant potential agents; that does not exclude helpers to the agent.

The first clause of (23), with stress on *auto*, presupposes that Hugo's financial situation was evaluated and denies that the evaluation was done by Hugo. This is typical of agent-focusing morphemes because they generate subject alternatives. The negation associating with *auto* denies that no other contextually relevant entity is the agent. That is why a continuation naming a different agent is possible.

- (23) Hugo n'a pas AUTOévalué sa situation financière,
Hugo NEG HAS_{aux} not self-evaluate his situation financial,
c'est Luc qui l'a évaluée.
it is Luc who it HAS_{aux} evaluated.
'Hugo did not SELF-evaluate his financial situation, it is Luc who evaluated it.'

This suggests that *auto* is agent-focusing. However, Spathas et al. (2015) show that the equivalent of (23) is possible with *afto* in Greek, and they attribute this to the non-delegative reading. Interestingly, their formula for the non-delegative reading is equivalent to the agent-focusing formula: $\forall e' \forall z. (e' = e \ \& \ \text{agent}(e', z)) \rightarrow z = x$, is equivalent (since $e' = e$) to $\forall z. \text{agent}(e, z) \rightarrow z = x$, which is equivalent to $\neg \exists z. (z \neq x) \ \text{agent}(e, z)$. Yet, semantically, non-delegation does not

seem to be the proper notion in (23). A negation associating with a non-delegative morpheme should yield a delegative interpretation. It is pragmatically possible in (23) that Hugo delegated the evaluation to Luc, but that is not the only possible interpretation of the sentence.

According to our intuition, (24), with stress on *auto*, states that it is not true that no one but Hugo evaluated Hugo's financial situation, Lise evaluated it with him.

- (24) Hugo n'a pas AUTOévalué sa situation financière,
 Hugo NEG HAS_{aux} not self-evaluate his situation financial,
 il l'a évaluée avec Lise
 he it HAS_{aux} evaluated with Lise
 'Hugo did not SELF-evaluate his financial situation, he evaluated it with Lise.'

The comitative *avec Lise* belongs to Yamada's Type 2 comitatives that semantically combine with the subject to form a plural argument: Hugo and Lise evaluated Hugo's financial situation (Yamada 2010:156). Lise is a co-agent, and not a mere assistant.⁸ The continuation follows from agent-focusing, but we find it unnatural, preferring the construction in (25).

To truly reject non-assistance, i.e. to state that the subject got help, from assistants like those in (22) or from co-agents, our intuition is that the negation must associate, not with *auto*, but with a phrase like *tout seul* 'alone':

- (25) Hugo n'a pas autoévalué sa situation financière
 Hugo NEG HAS_{aux} not self-evaluate his situation financial
 TOUT SEUL, il l'a (auto)évaluée avec (l'aide de) Lise.
 all alone, he it HAS_{aux} (self-)evaluated with (the help of) Lise
 'Hugo did not self-evaluate his financial situation alone, he evaluated it with (the help of) Lise.'

If our intuitions are correct, this is an argument against considering *auto* as anti-assistive.

Finally, the fact that the agent-focusing reading is attested with non volitional subjects goes against an anti-assistive analysis. According to Eckardt's (2001) definition quoted above, anti-assistive expressions require predicates having a volitional agent. Non-delegation also requires a volitional agent able to delegate the event to someone else.

- (26) a. L'appareil autorégule la combustion.
 the apparatus self-regulates the combustion

⁸An anonymous reviewer asks why, in (i), *co-* doesn't seem compatible with *auto-*:

(i) ?Il a autofinancé sa voiture qui était cofinancée par son père.
 'he self-financed his car that was co-financed by his father'

Because *co* attributes joint responsibility for the event to the individuals mentioned, it clashes with *auto* which excludes other entities having the agent role.

- b. Le module d'allumage autovérifie le bon fonctionnement du
The module of ignition self-check the good functioning of the
processeur.
processor
'The ignition module self-checks the proper functioning of the processor.'
- c. L'ordinateur n'a pas autocorrigé le problème,
The computer NEG HAS_{aux} not self-correct the problem,
c'est Max qui a dû le corriger.
it is Max who HAS_{aux} must it correct
'The computer did not self-correct the problem, it is Max who had to
correct it.'

The problem does not arise with an agent-focusing analysis.

4.2. Reflexive reading

The following examples show that, in the reflexive reading, the agent may be helped in the realization of the event, or can delegate part of the event to others. This argues against an anti-assistive analysis.

- (27) 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 himself'
- b. ...une lettre qu'il s'est autoenvoyée depuis la prison
a letter that he REFL BE_{aux} self-send from the prison
avec l'aide de sa mère
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
you HAVE_{aux} chosen to RELF-2 self-build, make call to
notre équipe pour effectuer une ou plusieurs étapes
our team to realize one or many steps
de votre projet telles que (...)
of your project like (...)
'You have chosen to build yourself (your home), call on our team to realize one
or many steps of your project, like (...)' (<http://www.constructionyf.com/>)

We propose that the reflexive reading is agent-focusing: (28a) emphasizes the fact that the event of congratulating Donald is performed by Donald and nobody else.

- (28) a. Donald s'autocongratule. (=5a)
Donald REFL self-congratulate
'Donald congratulates himself'
- b. λe . congratulate(e,donald) & agent(e,donald) & $\neg \exists z (z \neq \text{donald}) \text{agent}(e,z)$

Importantly, in the reflexive reading, *auto* is not only agent-focusing, it is also a reflexivizer. That is apparent in nominals, where *se* is not present. An *autocongratulation* is the fact of congratulating oneself. Our analysis in section 7.2 captures both the agent-focusing and the reflexivizing effect of *auto* in this reading.

An agent-focusing interpretation of the reflexive reading explains why *auto* generates subject alternatives. Sentence (29) presupposes that Guaido was proclaimed interim president, and the negation associating with *auto* denies the condition excluding other agents. This makes the continuation naming a different agent possible.

- (29) Guaido ne s'est pas AUTOproclamé président par intérim.
 Guaido NEG REFL BE_{aux} not self-proclaim president by interim.
 C'est l'assemblée législative de son pays qui l'a investi
 It is the assembly legislative of his country that him HAS_{aux} entrusted
 de cette responsabilité.
 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)

The coordination in (30a) 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 provided in (30b).

- (30) a. Le conseil constitutionnel n'a pas été saisi
 The constitutional council NEG HAS_{aux} not BEEN_{aux} seized
 et ne s'est pas autosaisi de l'examen
 and NEG REFL BE_{aux} not self-seize of the examination
 de ces questions.
 of these questions.
 'The constitutional council was not asked to examine these questions, and
 it did not decide on its own to examine them.'
 b. L'intelligence artificielle doit-elle s'autoréguler
 the intelligence artificial must-3s REFL self-regulate
 ou se faire réguler?
 or REFL make regulate
 'Must artificial intelligence regulate itself or get regulated?'

We conclude that the reflexive construction is agent-focusing.

4.3. Anticausative reading

If we apply Spathas et al.'s (2015) formula to (31a), we end up with a reflexive agentive event of the lamp lighting itself up without help.

- (31) a. La lampe s'autoallume. (=15)
 'the lamp self-lights up'
 b. $\lambda e. \text{light_up}(e, \text{lamp}) \ \& \ \text{agent}(e, \text{lamp}) \ \& \ \forall e' \forall y. (e' \leq e \ \& \ \text{agent}(e', y)) \rightarrow y = \text{lamp}$

The problem with (31b) is that, not only is the lamp an inanimate entity that should be incompatible with anti-assistiveness, but also, research has shown that anticausatives are not reflexive, and that they have no external argument, whether they are marked with *se* or not (cf. Horvath and Sioni 2011, 2013, Martin and Schäfer 2014, Schäfer and Vivanco 2016). The second problem also applies to the agent-focusing modification. Both anti-assistiveness and agent-focus refer to agents, 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 tentatively suggest that, in that reading, *auto* is an intensifier emphasizing the agent-less nature of the anticausative:

- (32) $\lambda e. \text{light_up}(e, \text{lamp}) \ \& \ \neg \exists z \ \mathbf{\text{agent}(e, z)}$

The modification in bold is a minimal variant of the agent-focusing modification ($\neg \exists z (z \neq x) \text{agent}(e, z)$, where x is the sentence agent). We refer to the modification in (32) as being agent-denying. If (32) is on the right track, *auto* is polysemous since its two variants share a core meaning: they both contain the formula $\neg \exists z \text{agent}(e, z)$, which generates agents relevant in the context and states that these agents are not involved in the event. Whereas, with agentive verbs, the formula applies to agents different from the one mentioned in the sentence—thereby emphasizing the role of the specified agent in the event—, with agent-less predicates, it emphasizes the fact that there is no agent to the event, thereby stressing the autonomy of the event.

5. ANTI-ASSISTIVENESS AND SUB-EVENTS

The anti-assistive formula defended by Spathas et al. (2015) states that for every sub-event e' of the main event e , anti-assistiveness holds. The authors argue that the reference to sub-events accounts for two properties that *afto* shares with other anti-assistive intensifiers: 1) anti-assistive intensifiers are compatible with durative events (activities and accomplishments), but not with states or punctual events like achievements⁹; 2) with anti-assistive predicates, modifiers like *almost* or *partly* quantify the number of sub-events for which the anti-assistive modification holds.

The fact that *auto* is compatible with punctual events and states provides confirmation that is not anti-assistive. Let us start with performative verbs. Performative verbs are considered achievements because they denote speech acts whose effect takes place instantaneously at the moment when the speech act is

⁹Unless the achievements have been shifted to denote progressive achievements, in which case they behave like accomplishments.

completed (Vendler 1970). Nevertheless, they accept *auto*-prefixation. That was illustrated in (29) with the verb *proclamer* ‘proclaim’ in the context *proclaim oneself interim president*. In that context, *almost* and *partly* do not quantify the degree of anti-assistiveness.

- (33) a. Guaido s’est presque autoproclamé président par interim.
 ‘Guaido almost proclaimed himself interim president.’
 b. Guaido s’est partiellement autoproclamé président par interim.
 ‘Guaido partly proclaimed himself interim president.’

Presque ‘almost’ in (33a) states that the event of proclaiming oneself interim president almost took place, but it didn’t. That reading of *almost* is typical of achievements (cf. *John almost won*.) *Partiellement* ‘partly’ in (33b) does not mean that Guaido accomplished the speech act partly without help, as would be expected if it restricted the number of sub-events for which anti-assistiveness held (cf. *John partly built the house himself*). 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 modify the preparatory phase of the event; they do not measure a degree of anti-assistiveness.

Apart from performative verbs, other punctual events do not involve sub-events:

- (34) a. Si elle se sent en danger de mort,
 if she REFL feels in danger of death,
 elle peut s’autoexploder en mille morceaux
 she can REFL self-explode in thousand pieces
 ‘If she falls in mortal danger, she can explode herself to pieces’
 b. Pierre s’est autoexclu de l’équipe
 Pierre REFL BE_{aux} self-exclude from the team
 ‘Pierre excluded himself from the team’

Instantaneous events are incompatible with anti-assistiveness, and, indeed, the examples are not interpreted as non-assistive or non-delegative. They state that the agent, and no one else, is responsible for the event affecting him or her.

Even the anticausative reading is not incompatible with punctual inchoative events. For instance, *autoallumer* ‘self-light-up’ may apply to an electronic device that is either on or off (also *autoéteindre* ‘self-extinguish, self-turn-off’).

- (35) Ce détecteur de mouvements est programmé pour s’autoallumer
 this detector of movement is programmed to SE self-light-up
 à 5 heures pile.
 at 5 o’clock sharp
 ‘This movement detector is programmed to switch on a 5 o’clock sharp.’

In that context, adding *presque* ‘almost’ to *autoallumer* states that the event did not take place, and adding *achever de* ‘finish’ is not accepted. That shows that the event is not durative.

- (36) Le détecteur de mouvement s'est presque autoallumé à 5h.
the detector of movement SE BE_{aux} almost self-switch-on at 5:00.
'The movement detector almost switched on at 5:00.'
- (37) #Le détecteur de mouvement achève de s'autoallumer.
the detector of movement finish to SE self-switch-on
'The movement detector is finishing to switch on.'

Finally, states are incompatible with anti-assistive intensifiers because they are not events (therefore they do not have sub-events), and they do not have agentive subjects. But *auto* is attested with states:

- (38) a. La vérité c'est que je m'autodéteste.
The truth it is that I REFL-1s self-detest
'The truth is that I detest myself'
- b. Cette caste s'autoadmire.
that caste REFL self-admire
'That caste admires itself'
(Figaro Magazine 2004, quoted in fr.wiktionary.org/wiki/s'autoadmirer, accessed 2021-10-24)
- c. L'Algérie s'autosuffit en tomate.
The Algeria RELF self-suffice in tomato
'Algeria is self-sufficient in tomatoes.'

The stative nature of these examples is demonstrated by their incompatibility with event-modifying adverbs like *lentement* 'slowly', *brusquement* 'suddenly'. It should be clear that anti-assistiveness does not reflect the meaning of the sentences. In (38a), for example, *auto* emphasizes the fact that the subject entertains the emotion towards himself/herself. To account for stative sentences, the agent-focusing formula would need to be extended to cover the external argument of eventualities (events and states), allowing the focus to be placed on the holder of a state.¹⁰

To summarize, it was argued that *auto* is not anti-assistive in any of the three readings of *auto*-prefixed verbs distinguished by Mutz (2004, 2011). Before turning to the analysis of the constructions underlying these three readings, we will introduce a fourth reading observed for the first time, to our knowledge, in Labelle (2009).

¹⁰The annex of Dugas's (1992) paper on *auto*-prefixation includes several 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', *autoféconder* 'self-impregnate/fertilize', *autoidentifier* 'self-identify', *autolocaliser* 'self-localize', *autoatteindre* 'self-reach'), and two stative verbs (*autoexécerer* 'self-detest', *autosuffire* 'self-suffice').

6. THE CAUSATIVE READING

In (39), the *auto*-prefixed verbs express an autonomous event caused by the external argument of the verb, implicit in (39a) (Labelle 2009).

- (39) a. Pour empêcher le vaisseau d'être capturé par un ennemi,
to prevent the ship from being captured by an enemy,
il est possible de l'autodétruire.
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
- c. Vous pouvez autoconfigurer votre système.
you_{pl} may self-configure your system
- d. Comment puis-je autosupprimer un enregistrement
how can I self-delete a recording
lorsque la date est expirée?
when the date is expired
'How can I self-delete a recording when the date has expired?'

The label 'causative' for this reading highlights its relation with the lexical causative variant of verbs entering the causative/anticausative alternation: *John broke the vase* ↔ *The vase broke*. *John broke the vase* is understood as roughly meaning [*John CAUSED [the vase break]*] (cf. section 2.3). Similarly, *Fred a autodétruit le vaisseau* ('Fred self-destructed the ship'), a simplified variant of (39a), means [*Fred CAUSED [le vaisseau s'autodétruit]*] '[Fred CAUSED [the ship self-destroy]]', and not *Fred, and no one else, destroyed the ship* (nor *Fred destroyed the ship without help*). In [*Fred CAUSED [le vaisseau s'autodétruit]*], the embedded event corresponds to the anticausative reading of *auto*, denoting an autonomous event¹¹; this shows that *auto* does not exclude the intervention of a causer.¹²

Although this is debatable, we feel that *autofinancer* 'self-finance' in (40) also has a causative reading.

- (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 self-finance].

¹¹The difference between *auto* and *de lui-même* surfaces here. Contrary to ex. (17), there is no redundancy in *Fred a autodétruit le vaisseau de lui-même* 'Fred self-destructed the ship by himself': *de lui-même* does not modify the embedded event (even though it is masculine like *le vaisseau*); it necessarily associates with Fred.

¹²An anonymous reviewer asks about back-formation, pointing out that in English *self-destruct* is considered a back-formation from *self-destruction*. We see no evidence for backformation: the French roots are phonologically distinct (*auto*)*destruction*_N, (*auto*)*détruire*_V. Moreover, it is unclear how an appeal to back-formation would account for the causative and anticausative readings.

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 reading in (40b) better represents the meaning of the clause than an agent-focusing one (*the SNCF and no one else finances...*) that would also be pragmatically possible. More research would be needed to determine the frequency of this construction, that seems to be spreading with the development of intelligent systems allowing a user to trigger an autonomous process.

The causative reading confirms that *auto* attaches low in the structure, because it modifies the caused event. *Auto* has no connection with the external argument of the clause, and, clearly, it cannot modify the Voice Phrase dominating the external argument.

The causative reading is built on the anticausative reading of *auto*, emphasizing the autonomous nature of the change of state event. It is rejected if the change of state event is not autonomous (41a), and adding an external cause to an agentive verb with a reflexive reading appears impossible. We cannot say (41b) to mean *Fred CAUSED [Paul congratulate himself]*.

- (41) a. *Fred/Le météorite a autocassé la vitre¹³
 Fred/the meteorite HAS_{aux} self-broken the glass
 b. *Fred a autocongratulé Paul.
 Fred HAS_{aux} self-congratulated Paul

If the causative reading is built on an anticausative verb, it corresponds to the causative variant in the well-studied causative/anticausative alternation. The analysis proposed in 7.4 builds on that premise.

7. ACCOUNTING FOR AUTO-PREFIXATION

In this section, we explore an analysis of *auto*-prefixation within a generative perspective. We wish to account for the semantic derivations of the four readings identified in the previous sections (agent-focusing, reflexive, anticausative, causative). We deliberately keep the discussion informal. Various syntactic 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 it is possible to derive the four readings of *auto*-prefixed verbs by merging *auto* within a verbal projection.

Our analysis assumes a *v* head whose role is to introduce in the derivation a variable for the external argument and assign it a thematic role; however, that head does not introduce the external argument in syntax (Labelle and Doron

¹³Cf. the following example rejecting the possibility of an anticausative event of the glass self-breaking: *La vitre ne peut pas s'autocasser non?* 'The glass cannot self-break, no?' (<https://fr.wiktionary.org/wiki/autocasser>). The judgments may change with technological advances.

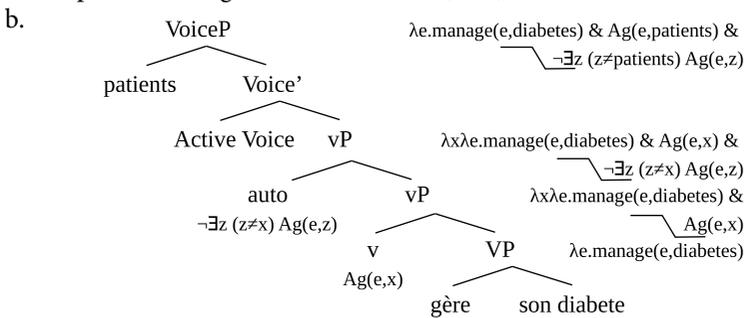
2010; Harley 2013). A grammatical Voice head merged above vP determines the syntactic realization of the external argument: Active Voice provides a specifier in which the external argument is merged; Passive Voice introduces existential binding over the agent variable in short passives (e.g. Bach 1980, Keenan, 1985, Bruening 2013); with Reflexive Voice, the external argument is coindexed with an object. Anticausative Voice selects an agent-less VP. Our v head is not the categorizing v head of Distributed Morphology, whose role is to type the word as a verb (Embick and Marantz 2008, Embick 2010). In the structures below, we do not represent the category-typing heads.

7.1. Agent-focusing reading

In the agent-focusing reading, the intensifier *auto* selects a transitive verb and it creates a focus on the agent. We assume that *auto* combines with an open predicate to yield an open predicate, and its associate is the free variable within the predicate.

The semantic derivation of (42a) is given in (42b). The crucial point in this derivation is that *auto* is merged after the merge of the agent variable.

(42) a. Les patients autogèrent leur diabète. (=9a)



The VP describes an event of managing one’s diabetes. The v head adds a variable bearing the agent role. *Auto* merges with the 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 (as well as Mutz’s contiguity condition, not represented here). The referent of the agent is introduced in the specifier of Active Voice. The sentence states that the patients, and no other contextually relevant entity, are responsible for managing their diabetes.

We assume that the prefix *auto-* is not a root affix, but a level II affix, that is, a head that attaches to an xP and combines with categorized material (Creemers et al. 2018), in the present case with a verb. A level II analysis of *auto* finds support in the neologisms illustrated in (7) (*auto-pelure-de-bananiser*) and (8b) (*auto-casser la*

gueule), and in the fact that *auto* may receive focal stress. *Auto*, in (42), merges with a verb projection; however, *auto* itself does not project a category, it is not a category-changing affix. The syntactic derivation of (42) goes as follows. When *v* is merged, the verb raises to *v*. When *auto* is merged, it attracts the phonologically adjacent verb to satisfy its affixal requirement, and the two elements are linearized in accordance with the prefixal nature of *auto-*. Because the prefix is not categorized, the complex word is a verb, and the category of the phrase is unchanged. From there, the complex verb may move further up the tree; in (42), it moves to the Tense head, standardly assumed to be higher than Voice.

If an nP node immediately dominated *auto* (*mutatis mutandis*), we would have the agent-focusing eventive nominal *autogestion du diabète* ‘self-management of diabetes’. The agent role of the event denoted by the nominal could be expressed in a by-phrase (*l'autogestion du diabète par les patients* ‘the self-management of diabetes by the patients’). (On nominalizations, cf. Alexiadou 2010a,b, Embick 2021, Sleeman and Brito 2010.)

7.2. 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 an applicative object (as in 8b) or the accusative subject of a small clause complement (as in 29).

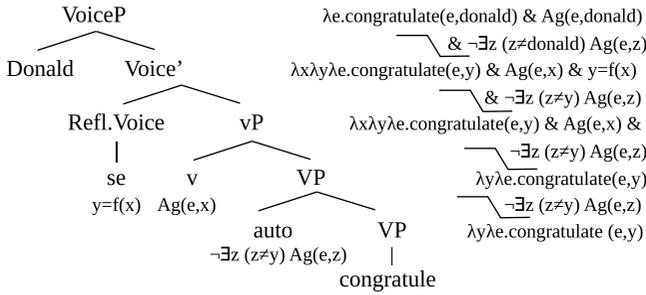
$$(43) \lambda P \lambda x \lambda y \lambda e [P(e, y) \ \& \ \text{agent}(e, x) \ \& \ y = f(x)]$$

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. When there is identity between the object and the agent, $y = x$, and we can replace *y* by *x* everywhere. This yields the standard reflexive formula, denoting events affecting an entity *x* whose agent is also *x*:

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

A simple agent-focusing reading of *auto* in the reflexive reading does not express the intuition that *auto* is a reflexivizer. The reflexivizing role of *auto* can be captured if the modification introduced by *auto* forces the merge of an agent coreferential with the object. This may be obtained by supposing that *auto* merges with the VP (cf. also Sportiche 2014:117), and associates with a free object variable within this VP. Because we distinguish *v* and Voice, we suppose, in (45), that *v* introduces the agent, and *se* under Reflexive Voice introduces the equation $y = f(x)$.

(45) Donald s'autocongratule. (=5a)



The lower VP describes an event of congratulating *y*, whose object is not realized. *Auto* merges with that VP. In (42), the associate of *auto* was the *x* variable corresponding to the agent; here it is the *y* variable corresponding to the missing object. The modification introduced by *auto* adds to the interpretation the condition 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. If the node dominating *auto* were NP instead of VP (*mutatis mutandis*), 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 formula $\lambda x \lambda e . \text{congratule}(e, x) \ \& \ \text{Ag}(e, x) \ \& \ \neg \exists z (z \neq x) \ \text{Ag}(e, z)$, which is reflexive and agent-focusing. The constituent merged in the specifier of Voice is substituted for the *x* variable. The sentence states that Donald, and no one else, congratulates himself. This analysis is in line with Labelle’s (2008) claim that the modification added by *auto* forces the merge of the Reflexive Voice head *se* to mark the coreference between the agent and object variables.

As above, the prefix *auto-* attracts the verb, to which it affixes. As for *se*, it is not an affix on a lexical verb, but a clitic targeting the highest accessible inflectional head within the verb’s extended projection, Tense in (45). Recall that in complex tenses, *se* cliticizes on the *être* auxiliary, whereas the lexical verb remains below Voice (cf. *Jean s’est souvent autoanalysé*, section 3). In (45), *se* could enjoy a piggyback ride to Tense by cliticizing on the *auto*-prefixed verb, that also targets Tense.

7.3. Anticausative reading

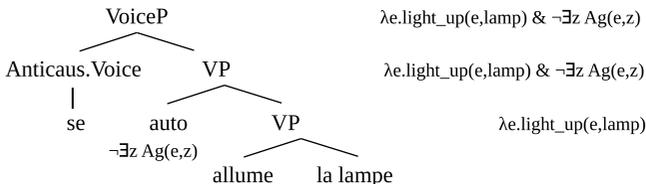
For anticausative sentences, we suggested that *auto* adds the agent-denying modification highlighted in (46b) (cf. section 4.3):

- (46) a. La lampe s'autoallume. (=15)
 ‘the lamp lights up by itself’
- b. $\lambda e . \text{light_up}(e, \text{lamp}) \ \& \ \neg \exists z \ \text{agent}(e, z)$ (=32)

If something like (46b) is correct, *auto* modifies an anticausative predicate with no free variable. It can combine via event identification (Kratzer 1996:122).

In (47), *auto*, merges with the VP, placing emphasis on the fact that the event is autonomous. Anticausative Voice, headed by *se*, selects an agent-less VP and allows the movement of the theme to its specifier or to a higher head (cf. e.g. Labelle and Doron 2010 for a similar analysis of French anticausatives).

(47) La lampe s'autoallume.

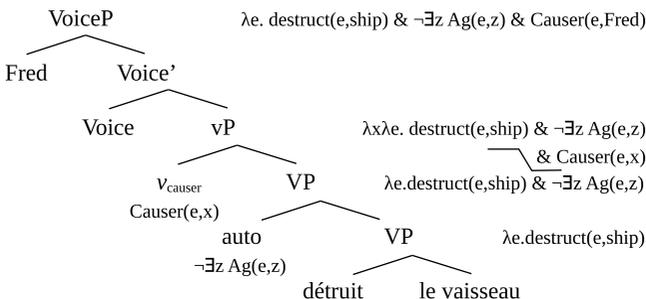


If an NP node immediately dominated *auto*, we would have a nominal denoting an autonomous event: *autoallumage de la lampe*.

7.4. Causative reading

A possible derivation of the causative reading is illustrated in (48), which assumes Pylkkänen's (2008:88) Theta-Role Analysis of the causative variant of English verbs entering the causative alternation. In Pylkkänen's analysis, the transitive variant of the verb is derived by adding to the anticausative variant a head introducing a causer role: $\lambda x.\lambda e.\text{Causer}(e,x)$. Contrary to the agent role, the causer role subsumes both the existence of a causal event and of an agent to that cause. Pylkkänen (2008:99) argues that, semantically, this is equivalent to first merging a causal event ($\lambda e.\lambda e' \text{ Cause}(e',e)$), then merging an agent of the causal event ($\lambda x.\lambda e' \text{ Agent}(e',x)$), a two-step derivation that could be an alternative to (48).

(48) Fred autodétruit le vaisseau.



Apart from *auto*, the derivation is identical to that of the causative variant in the causative/anticausative alternation. The VP of (48) is that of the anticausative reading (47). *Auto* merges with VP, forcing a reading in which this event is autonomous. Since anticausatives have no agent, a fact emphasized by *auto*, *v* cannot introduce an external argument with an agent role. But nothing prevents *v* from assigning a causer role. As mentioned above, this is semantically equivalent to adding *e*₁ above *e*₂ in: [*e*₁ x CAUSE [*e*₂ ship self-destruct]]. Crucially, *auto* scopes only over the destruction event, and it has no bearing on the causative event that is merged above it. The external argument is the agent of the CAUSE predicate (*e*₁), but not of the destruction event (*e*₂). The referent of the causer is realized in the specifier of Active Voice. The sentence means that Fred was the causer of an autonomous event of ship destruction: once the destruction is launched, it unfolds autonomously.

With the nominal *autodestruction*, the causer may be expressed in a by-phrase: *l'autodestruction du vaisseau par ses occupants* 'the self-destruction of the ship by its occupants'. This shows that the nominal constituent may include the causative level.

To summarize, we distinguished two variants of *auto* that share a core component of meaning ($\neg\exists z \text{ agent}(e,z)$), making this morpheme polysemous. In both variants, *auto* is an intensifier merged to a verbal projection. The first variant associates with a free variable, and it introduces in the semantics an agent-focusing modification denying the existence of alternative agents. It is found in the agent-focusing reading and in the reflexive reading, the difference between the two readings stemming from the level at which *auto* is merged. The second variant attaches to predicates having no free variable with which *auto* could associate; it introduces a modification emphasizing the fact that the event is agent-less; this variant merges with VP, and it is found in the anticausative reading and in the causative reading.

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 in French.

8. CONCLUSION

The present paper focused on the French verbal prefix *auto*. From a syntactic point of view, it was argued that *auto* merges within a verbal projection, below the grammatical Voice head. From a semantic point of view, we argued that anti-assistiveness does not properly reflect the meaning of *auto*, and that it wrongly predicts that *auto* should be incompatible with punctual events and states. We argued that *auto* is an intensifier whose semantic contribution to the sentence is to state that no agent, or no agent other than the one mentioned, participated in the event. The prefix has two variants, making it polysemous. In one variant, the prefix associates with a free variable and it generates agents different from the one referred to by the variable; this produces the agent-focusing interpretation observed in transitive and reflexive sentences. The second variant combines with

an anticausative verb phrase that does not contain a variable; this variant produces an agent-denying interpretation and it emphasizes the autonomous nature of the event.

We sketched an 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. The presence of an associate, the nature of the associate, and the level at which the variant is merged give rise to the different readings of *auto*-prefixed verbs. If the present solution is on the right track, it supports models in which the external argument variable is introduced at the *vP* level and grammatical Voice is responsible for its syntactic realization.

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