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Verbalizing nouns and adjectives: The case of behavior-related verbs

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In languages such as French, it is possible to derive from nouns or adjectives unergative verbs that intuitively describe ways of behaving, for example, *diplomatiser* 'behave like a diplomat', or *bêtifier* 'behave like an idiot'. In addition to their unergative use, a number of behavior-related verbs have formally identical counterparts that are causative, anticausative or transitive activity verbs. The availability of the additional uses depends on the morphological make-up of the verb. This paper provides a semantic analysis of each use of these verbs, which is derived in a compositional fashion from the meaning of their different morphological pieces. We focus on the semantic contribution of the incorporated noun or adjective, by looking at the entailment patterns between the verb (e.g., *diplomatiser* 'behave like a diplomat', *bêtifier* 'behave like an idiot') and the corresponding noun (e.g., *être (un/une) diplomate* 'be a diplomat') or adjective (e.g., *être bête* 'be stupid') . We observe that the noun is (re)interpreted in the same way in both the behavior-related verb and the figurative reading of the indefinite NP. The analysis proposed explicitly captures this figurative reading of (e.g.) *être un/une diplomate* 'be a diplomat', the link between the meaning shift of N in this reading and in *diplomatiser* 'behave like a diplomat', the additional causative, anti-causative and non-causative transitive uses of the verbs at study, as well as the entailment patterns observed. We also account for the way the morphosyntactic makeup of the predicate restricts the range of available readings.

Keywords: behavior-related verb; unergative verb; (anti-)causative verb; indefinite NP; stereotype; figurative reading

1 Introduction

The French verbs in bold in (1) intuitively describe ways of behaving, that is, ways of acting, reacting, or functioning. We call them *behavior-related unergative verbs*.

(1) a. On   le   dit   aux   bains de mer, quelque part, où   il **lézarde**
         one him says at.the baths of sea   somewhere   where he lizard.PRES.3SG
         et   flirte.
         and flirt.PRES.3SG
         'One says he's at a seaside resort, somewhere, where he's lazing
         around and flirting.'   (Colette)

     b. On **diplomatise**,   on discutaille,   et les autres ils
         one diplomat.VBZ.PRES.3SG one quibble.VBZ.PRES.3SG and the others they
         continuent   d'implanter des   colonies.
         continue.PRES.3PL to set up   INDEF colonies
         'One diplomatizes, one quibbles, while the others continue to set
         up colonies.'   (Internet)

    c.   Les spasms financiers tenaillent l'Europe.   Sarkozy **sarkoze**   et
        the spasms financial torment the Europe Sarkozy sarkoz.PRES.3SG and
        Merkel **merkelise**.
        Merkel merkel.VBZ.PRES.3SG
        ≈ 'Financial spasms are tormenting Europe. Sarkozy is being Sarkozy
        and Merkel is being Merkel.'   (Internet)

    d.   Valls **sarkozyse**   et   terrorise la   droite à l'Assemblée
        Valls sarkozy.VBZ.PRES.3SG and terrorizes the right at the assembly
        nationale.
        national
        ≈ 'Valls is being Sarkozy and is terrorizing the right party at the
        National Assembly.'   (Internet)

    e.   Quand on **pédantise**,   on essaie d'accorder les participes
        when one pedant.VBZ.PRES.3SG one tries to agree   the participles
        correctement.
        correctly
        ≈ 'When one is being pedantic, one tries to make participles agree
        correctly.'   (Internet)

Behavior-related verbs can be derived from common nouns (e.g., French *lézard* 'lizard') that can refer to a set of individuals exhibiting typical behavior patterns, or from proper nouns that can refer to individuals exhibiting such patterns. Behavior-related verbs can also be derived from a subset of evaluative adjectives (e.g., French *pédant* 'pedantic'), sometimes called *propensity adjectives* (Oshima 2009).[1] The behaviors described by the verbs in (1) can be seen as instantiations of the typical behavior patterns ascribed by the corresponding nouns or adjectives, for example, those in (2).

(2)   a.   Mon doudou est **un vrai lézard**. Il adore se   prélasser sous le   soleil.
        my honey is a   true lizard he adores REFL bask   under the sun
        'My honey is a true lizard. He loves basking under the sun.'   (Internet)

    b.   Cette petite fille est **une diplomate**!
        this   little   girl is a   diplomat
        'This little girl is a diplomat!'

    c.   À propos de sa fille,   Carla Bruni declare […] « Elle est très
        about   her daughter Carla Bruni declares   she is very
        Sarkozy. Nicolas a trouvé   son maître. »
        Sarkozy Nicolas find.PF.3SG his master
        'About her daughter, Carla Bruni declares […] "She's very Sarkozy.
        Nicolas found his master."'   (Internet)

    d.   Comme d'habitude, [DSK] était   **pédant**.
        as   usual   DSK be.IMPF.3SG pedantic
        'As usual, [DSK] was pedantic.'   (Internet)

In dispositional ascriptions such as (2a) and (2c), the noun is used on its figurative reading. This reading is most pragmatically natural when the noun is modified by an adjective such as *vrai* 'true' or, in the case of proper noun, by a degree adverbial such as *très* 'very', probably because it helps to exclude the literal reading. But as (2b) shows, *vrai* 'true' is not always necessary for the literal reading of the common noun to be discarded. In contrast,

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[1] Further examples are given in the appendix.

propensity adjectives (e.g., *pédant* 'pedantic') are used literally in dispositional ascriptions, as the case in (2d).

The morphemes *-iser* and *-ifier,* which we assumed to be composed of the verbalizer *-is-*/*-ifi-* and the infinitival inflection *-er,* are the suffixes commonly used to derive behavior-related verbs. However, some behavior-related verbs (e.g., *patienter,* 'wait') are formed by zero-derivation: the verbalizer is covert and the stem is on surface directly attached to the infinitival inflection.[2] Also, for several verbs, French usage varies between the "zero-derived" and the "*-is-er/-ifi-er* derived" variants: cf. *macronner/macron(n)iser* 'behave like Macron', *merkeler/merkeliser* 'behave like Merkel', *cabotiner/cabotiniser* 'ham it up; overact', *babouiner/babouiniser* 'monkey around', *gaminer/gaminiser* 'behave like a youngster'.

In addition to their unergative use, a number of behavior-related verbs have formally identical counterparts that are causative, anticausative or transitive activity verbs. The availability of the additional uses depends on the morphological makeup of the verb. Most of behavior-related unergative verbs formed with the suffix *-iser* or *-ifier* can be used as causative verbs, see, for example, (3), which roughly means that Sarkozy causes Hezbollah to have/get a property typical of diplomats,[3] or as anticausative verbs, as in (4).[4] Behavior-related verbs that can be used causatively can also be used anticausatively. In both uses, they describe the acquisition by the theme's referent of a typical property of individuals in the set denoted by the stem, while on the unergative use, it ascribes to the agent's referent a behavior typical of these individuals.

(3)   Sarkozy diplomatise   le Hezbollah.
        Sarkozy diplomat.VBZ.PRES.3SG the Hezbollah
        'Sarkozy causes Hezbollah to get typical properties of diplomatic
        organizations.'   (Internet)

(4)   Le Hezbollah s'est diplomatisé.
        the Hezbollah REFL = diplomat.VBZ.PF.3SG
        'Hezbollah became a diplomatic organization.'

Our goal is to provide a semantic analysis for each use of these verbal construals, derived in a compositional fashion from the meaning of their different morphological pieces. Additionally, we aim to account for the way the morphosyntactic makeup of these verbs constrains the range of meanings they can have. We will address the following questions:

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[2] There are also less productive verbalizers such as *-ass-* (e.g., *putasser* 'behave like a whore'). In line with Kastner & Martin (2019), we analyse the morpheme *-i/-iss-* entering the composition of French verbs of the second conjugation class as a verbalizer, which explains the glosses of examples (78). Zero verbalizers are not translated in the glosses.

[3] The context was: "Sarkozy said that [...] the Hezbollah had a social base and recognizable political objectives and thus a certain legitimacy that has to be reckoned with" (Tiersky & Van Oudenaren 2010).

[4] In French as in many other Romance and Germanic languages, verbs undergoing the (anti)causative alternation are divided into two morphological and three distributional classes (see Labelle 1992 and subsequent authors). With verbs of class A, the anticausative (AC) is morphologically *unmarked* (Ø-AC), for example, *sécher* 'to dry'. With verbs of class B, the anticausative is *marked* with the reflexive clitic *se*(*se*-AC), for example, *s'assécher* 'to dry'. Anticausatives of class C allow *both markings* (Ø/se-AC), for example, *(se) casser* 'break'. The verb *diplomatiser* is in class B: without the reflexive, the anticausative reading is unavailable, and the verb can only be used unergatively. However, other behavior-related verbs with *-iser/-ifier* belong to class C; see, for example, *(se) crétiniser* 'to get to have typical properties of dumb people' (and there might be variation in the way speakers classify predicates across these three classes, as observed for other anticausatives by Martin et al. 2019). We did not find behavior-related verbs in class A, and as far as we can see, it might be that this class does not include any verbs with *-iser/-ifier* at all.

- What is the semantics of behavior-related unergative verbs?
- How does the noun or the adjective contribute to the semantics of the verb?
- What is the semantic relation between the noun or the adjective and the derived verb?
- How are the anticausative and transitive uses semantically related to the unergative use?
- How does the morphosyntactic makeup of the predicates restrict the range of readings behavior-related verbs may have?

To answer these questions, we first look at the entailment patterns between the noun and the corresponding behavior-related verb (in section 2) as well as between the adjective and the noun (in section 3). We then review the shortcomings of previous analyses of behavior-related verbs and the figurative reading of nouns (in sections 4 and 5) before presenting our own approach to these constructions (in section 6). Denominal behavior-related unergative verbs are addressed in section 6.1, deadjectival ones in section 6.2, and section 6.3 is dedicated to the additional causative, anticausative and non-core transitive uses behavior-related verbs may have. Section 7 briefly looks at behavior-related unergative verbs in languages beyond French, in Spanish, Italian, German, and English.

2 Entailment patterns between the verb and the noun

In section 2.1, we look at the entailment pattern from a behavior-related verb to the corresponding noun. We distinguish the generic from the episodic uses of these verbs and nouns, beginning with the former. In section 2.2, we examine the reverse entailment from the noun to the behavior-related verb.

2.1 Does a behavior-related verb entail the corresponding noun?

The absence of an entailment from a behavior-related verb to the corresponding noun is obvious when the noun is a proper noun, but it has also been observed when the noun is a common noun (see Aronoff 1980; Acquaviva 2009):

(5)   He nurses well (but he's not a nurse).

However, in languages like French and German where nouns of profession can be bare or with a determiner, things are a bit less obvious, as the following examples show:[5]

(6)   Juliette est Ø diplomate.
        Juliette is   diplomat
        'Juliette is a diplomat by profession.'   (Literal only)

(7)   Juliette est une diplomate.
        Juliette is   a   diplomat
        'Juliette is a diplomat.'
        a.   'Juliette is a diplomat by profession.'   (Literal)
        b.   'Juliette has properties typical of diplomats.'   (Figurative)

The entailment from the behavior-related verb to the noun is blocked if the noun is used as a bare NP, because the sentence is true only if the subject is an 'N' by profession (de Swart et al. 2007; von Heusinger & Wespel 2007; Roy 2013 and references therein), as

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[5] In (6), *diplomate* is a noun. There is also an adjective *diplomate,* in which case (6) does not mean that Juliette is a diplomat by profession.

in (8a) and (9a).[6] However, the entailment arguably succeeds if the noun is used with an indefinite article on a figurative reading, as in (8c) and (9c).

(8)   a.   Paul putasse.
               Paul whore.VBZ.PRES.3SG
               'Paul behaves like a whore.'   (Generic)

        b.   ↛ Paul est Ø pute.
                  Paul is   whore
               'Paul is a whore by profession.'   (Literal only)

        c.   → Paul est une (vraie) pute.
                  Paul is   a   true   whore
               'Paul is a (true) whore.'   (Figurative)

(9)   a.   Juliette diplomatise.
               Juliette diplomat.VBZ.PRES.3SG
               'Juliette behaves like a diplomat.'   (Generic)

        b.   ↛ Juliette est Ø diplomate.
                  Juliette is   diplomat
               'Juliette is a diplomat by profession.'   (Literal)

        c.   → Juliette est une (vraie) diplomate.
                  Juliette is   a   true   diplomat
               'Juliette is a (true) diplomat.'   (Figurative)

That the (c)-sentences are entailed is not a surprise, because on the figurative reading, the use of the noun has been argued to be correct as long as referent of the subject NP "behaves like an 'N'" (von Heusinger & Wespel 2007) or has the typical properties of an 'N' (de Swart et al. 2007), whether or not the referent actually exercises the corresponding profession. This suggests that the noun is (re)interpreted in the same way in both the behavior-related verb and the figurative reading of the indefinite NP.

   Note that although the figurative interpretation of nouns is mostly discussed in works devoted to copular sentences, it is in fact also available when the noun together with an indefinite article is used in other kinds of sentences. For instance, (10) does not entail that I met a diplomat by profession but can be used to mean that the person I met has properties typical of diplomats.

(10)   Hier, j'ai rencontré une (vraie) diplomate!   (Figurative)
        'Yesterday, I met a (true) diplomat!'

The entailment pattern is basically the same for behavior-related verbs derived from proper nouns. For instance, (11a) does not entail (11b) but arguably entails (11c).

(11)   a.   Juliette merkelise/merkele.
               Juliette merkel.VBZ.PRES.3SG/merkel.PRES.3SG
               'Juliette behaves like Merkel.'   (Generic)

        b.   ↛ Juliette est Merkel.
                  Juliette is   Merkel
               'Juliette is Merkel.'   (Literal)

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[6] Note, however, that since a diplomat by profession can also "diplomatize," the meaning of a sentence with a behavior-related unergative verb is compatible with the possibility that the referent of the subject NP is an 'N' by profession.

       c.   → Juliette est une (vraie) Merkel.
              Juliette is   a   true   Merkel
              'Juliette is a (true) Merkel.'   (Figurative)

Note, however, that not every proper noun can be easily reinterpreted figuratively in an indefinite noun phrase. Proper nouns like *Bovary* and *Merkel* are special; according to Matushansky (2008: 609), they acquire the meaning

> 'an individual having the typical properties associated with the unique individual that is called [*Bovary/Merkel*]'. In other words, the proper name here seems to have become common: a new kind is created, whose members share properties other than just having the same name.

When a behavior-related verb is used episodically, which in French is achieved most saliently with the *passé composé*, it ascribes a certain way of behaving to the referent of the subject NP on a particular occasion, as seen in (12a) and (13a).

(12)   a.   Hier,   Pierre a putassé
               yesterday Pierre whore.VBZ.PF.3SG
               'Yesterday, Pierre behaved like a whore.'

        b.   Hier,   Pierre a été   une vraie pute.
               yesterday Pierre be.PF.3SG a   true   whore
               ≈ 'Yesterday, Pierre was being a true whore.'   (Figurative)

(13)   a.   Hier,   Juliette a diplomatisé.
               yesterday Juliette diplomat.VBZ.PF.3SG
               'Yesterday, Juliette behaved like a diplomat.'

        b.   Hier,   Juliette a   été   une vraie diplomate.
               yesterday Juliette has been a   true   diplomat
               ≈ 'Yesterday, Juliette was being a true diplomat.'   (Figurative)

Once the figurative reading of the noun is selected, (12a) and (13a) appear to entail (12b) and (13b), respectively.

2.2 Does a noun entail the corresponding behavior-related verb?

For a bare NP, the entailment from a noun to the corresponding behavior-related verb does not go through because one can be an 'N' by profession without behaving like an 'N'. For instance, recall that (9b) does not entail (9a), for it may be that despite being a diplomat by profession, Juliette does not behave like typical diplomats.
  Intuitions about the entailment from a noun on its figurative reading to the corresponding behavior-related verb in a generic sentence seem less sharp:

(14)   a.   Juliette est une diplomate.   (Figurative)
            'Juliette has properties typical of a diplomat.'

        b. $\overset{?}{\rightarrow}$ Juliette diplomatise.   (Generic)
            'Juliette behaves like a diplomat.'

(15)   a.   Jean est une pute.   (Figurative)
            'Jean has properties typical of a whore.'

        b. $\overset{?}{\rightarrow}$ Jean putasse.   (Generic)
             'Jean behaves like a whore.'

(16) a. Marie est une (vraie) Bovary.   (Figurative)
          'Marie is a (true) Bovary (has properties typical of Bovary).'
      b. $\overset{?}{\rightarrow}$ Marie bovaryse.   (Generic)
          'Marie behaves like Bovary.'

Two differences between the noun and the corresponding behavior-related verb account for the hesitation to endorse the entailments in (14)–(16).

Firstly, while the property ascribed by the noun on a figurative reading may be stative or eventive, the property ascribed by a behavior-related verb may only be eventive. For example, (14a) may be true if Juliette resembles typical diplomats in that she is well-groomed and has an expensive briefcase. Such stative properties of diplomats do not make (14b) true. In order for (14b) to be true, Juliette has to *behave* like a typical diplomat (e.g., to express herself discreetly).

Secondly, a noun may also be understood as ascribing an intensional property that is never instantiated in an actual event, whereas a behavior-related verb in a generic sentence makes a generalization about the actual behavior of the referent of the subject NP. In other words, the difference between (14a)–(16a) and (14b)–(16b) is reminiscent of the difference between a purely dispositional and an habitual reading of generic sentences (see Dahl 1975; Krifka et al. 1995; Menéndez-Benito 2013). An habitual reading is an inductive generalization inferred from actual instances, whereas a purely dispositional reading normally does not entail actual instances. Consider (17) in this respect.

(17) This machine crushes oranges.
      a. This machine regularly crushes oranges.   (Habitual)
      b. This machine has the disposition to crush oranges.   (Purely dispositional)

Note that a behavior-related verb in a generic sentence has only an habitual reading:

(18) Juliette diplomatise.
      a. #'Juliette has the disposition to behave like a diplomat.'   (Purely dispositional)
      b. 'Juliette regularly behaves like a diplomat.'   (Habitual)

In contrast, a noun on its figurative use can in principle have both an habitual and a purely dispositional reading. For instance, if Juliette is a newborn, a fortune-teller could assert (11c) if she believes Juliette to be a Merkel *en puissance* (even if Juliette has obviously not yet had the opportunity to exercise this power). However, the fortune-teller could not truthfully assert (11a) of Juliette in the same situation.

These two differences explain the reluctance to endorse the entailment from (14a)–(16a) to (14b)–(16b): it succeeds only on an habitual reading of the (a)-sentences and in a context where the property ascribed is eventive.

We summarize our observations as follows. Firstly, on a generic and episodic reading, a behavior-related verb (e.g., *Juliette diplomatise* 'Juliette behaves like a diplomat'; recall (9)) entails the corresponding noun with an indefinite (e.g., *Juliette est une diplomate* 'Juliette has properties typical of diplomats'; recall (9c)) on its figurative reading). This suggests that the noun is reinterpreted in a similar way in both cases. Secondly, in a generic sentence, a behavior-related verb only allows for an habitual reading and ascribes a typical eventive property 'N' to the referent of the subject NP, whereas the corresponding noun may have either an habitual or a purely dispositional reading, attributing either a typical eventive or a typical stative property 'N' to the referent of the subject NP.

3 Entailment patterns between the verb and the adjective
3.1 Does a behavior-related verb entail the corresponding adjective?

A sentence with a behavior-related verb does not entail the sentence with the correspond-ing adjective:[7]

(19)   a.   Sasha niaise,   mais ne t'y   trompe   pas,
                Sascha dumb.PRES.3SG but NEG you=PRO.DAT mistake.IMP.2SG NEG
                il est loin d'être   niais, c'est juste un genre qu'il   se   donne …
                he is   far from be.INF dumb it is just a   look that he REFL gives
                'Sascha behaves/is behaving like dumb people typically do, but don't be mis-taken, he's far from being dumb, it's just an image that he uses to display …'

       b.   On fainéante,   mais on n'est   pas fainéant, attention!
                one lazy.PRES.3SG but one NEG=is NEG lazy   attention
                'We behave/are behaving like lazy people typically do, but we are not lazy, be careful!'

       c.   Il ronchonne   mais c'est juste de la façade, il est pas ronchon
                he grumpy.PRES.3SG but it=is just INDEF show he is NEG grumpy
                pour un sou.
                for   a   penny
                'He's grumbling / he usually grumbles but it's just a show, he's not grumpy at all.'

       d.   J'ai patienté   parce que j'étais   bien obligé, mais je
                I=patient.PF.1SG because   I=be.IMPF.1SG well obliged but I
                t'assure   que patient, je l'étais   pas!
                you=ensure that patient I it=IMPF.1SG NEG
                'I have been waiting because I was obliged to, but I swear you that I wasn't patient!'

Intuitively, the contradiction is avoided for the same reason that it is possible to nurse without being a nurse, to diplomatize without being a diplomat, or to act as sad persons typically do without being sad. One one hand, the deadjectival behavior-related verb ascribes to the subject's referent *x* behavioral patterns typical of individuals defined by the adjective, (e.g.) lying in a couch in front of TV in the case of *fainéanter* 'laze around'; waiting in the case of *patienter* 'wait'. On the other hand, the adjective attributes to *x* an inner disposition. The entailment does not go through because one perfectly can actualize a stereotypical pattern ascribed by the verb while not having the disposition attributed by the adjective; for instance, it is possible to lie in a couch surfing on the Internet without being lazy, or to wait without being patient.

   Relatedly, behavior-related verbs derived from propensity adjectives such as *stupid* do not entail that the denoted events satisfy the property denoted by the adjective they derive from, what the related adverbial generally requires on the manner reading. For example, one can *patienter impatiemment* 'wait impatiently' (139 hits on Google), *bêtifier de manière intelligente* 'fool around in a clever way', *galantiser grossièrement* 'to date/court tactlessly', etc.

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[7] We do not distinguish the generic and episodic uses again, for the entailment patterns observed are identi-cal. For instance, sentences (19a–c) may be interpreted either generically or episodically; also, sentences in (20)–(23) may all be episodic, and (22)–(23) also have a generic use. But the entailment patterns remain stable across uses.

3.2 Does an adjective entail the corresponding behavior-related verb?

The inverse entailment from an adjective to the corresponding sentence with a behavioural verb seems blocked as well, see (20)–(23).

(20)   a.   Hier,   Sascha était   ronchon.
               yesterday Sascha be.IMPF.3SG grumpy.MASC.SG
               'Yesterday Sascha was grumpy.'

          b.   ↛ Hier,   Sascha ronchonnait.
                 yesterday Sascha grumpy.IMPF.3SG
               'Yesterday Sascha was grumbling.'

(21)   a.   Jean a été   fainéant.
               Jean be.PF.3SG lazy.MASC.SG
               'Jean was lazy.'

          b.   ↛ Jean a fainéanté.
                 Jean lazy.PF.3SG
               'Jean lazed around.'

(22)   a.   Sascha est patient.
               Sascha is   patient.MASC.SG
               'Sascha is patient.'

          b.   ↛ Sascha patiente.
                 Sascha patient.PRES.3SG
               'Sascha waits/is waiting.'

(23)   a.   Juliette est polissonne/   roublarde.
               Juliette is   mischievous.FEM.SG/ wily.FEM.SG
               'Juliette is mischievous/wily.'

          b.   ↛ Juliette polissonne/   roublarde.
                 Juliette mischievous.PRES.3SG/ wily.PRES.3SG
               'Juliette behaves/is behaving in a silly or libertine way/in a wily way.'

The reluctance to endorse the entailment is related to three differences between the adjective and the corresponding behavior-related verb, two of them being identical to the ones identified in the section 2 on denominal behavior-related verbs.

Firstly, while the property ascribed by the adjective may be stative or eventive, the property ascribed by a behavior-related verb may only be eventive. For example, (20a) may be true if Sascha feels innerly grumpy, but such a stative property does not make (20b) true. In order for (20b) to be true, Sascha has to perform typical actions of grumpy persons (e.g., to mumble words of dissatisfaction). Secondly, dispositional adjectives, like nouns associated to behavioral patterns, ascribes in generic sentences an intensional property that may or not get instantiated in actual events, while, as we observed in section 2.2., behavior-related verbs in generic sentences make generalizations about the actual behavior of the subject's referent.[8] The contrasts in (24) and (25) illustrate this difference.

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[8] To be sure, in episodic sentences, the property ascribed by dispositional adjectives cannot be purely intensional, and therefore has to get actualized in an eventuality. However, this eventuality does not have to be typical of the individuals denoted by the adjective. For instance, Jean has to actualize his laziness for (21a) to be true, but it might be that he does so in a way which is not typical of lazy people; thus, (21a) still does not entail (21b).

(24) a. Sam, il est au   fond   très paresseux, mais cette inclination ne
         Sam he is at-the bottom very lazy   but   this inclination NEG
         s'actualise   jamais (il ne   laisse jamais sa paresse prendre
         REFL = instantiates never he NEG lets   never his laziness take.INF
         le   dessus).
         the top
         'Sam is deep down very lazy, but this inclination never gets actualized (he
         never lets his laziness get the upper hand).'

      b. Sam, il   paresse,   #mais cette inclination ne   s'actualise
         Sam he laz.PRES.3SG but   this inclination NEG REFL = instantiates
         jamais (il ne la laisse jamais prendre le   dessus).
         never he NEG it lets   never his   laziness take.INF
         'Sam lazes around, but this inclination never gets actualized (he never lets it
         get the upper hand).'

(25) a. Ana, elle est en réalité très mesquine, mais cette inclination ne
         Ana she is in reality very petty   but   this inclination NEG
         s'actualise   jamais (elle ne   la laisse jamais prendre le dessus).
         REFL = instantiates never she NEG it lets   never take.INF the top
         'Ana is actually very petty, but this inclination never gets actualized (she never
         lets it get the upper hand).'

      b. Ana, elle mesquine,   #mais cette inclination ne   s'actualise
         Ana she petty.PRES.3SG but   this inclination NEG REFL = instantiates
         jamais (elle ne   la laisse jamais prendre le   dessus).
         never she NEG it lets   never take.INF the top
         'Ana behaves in a petty/miserly way, but this inclination never gets actualized
         (she never lets it get the upper hand).'

Thirdly, the event properties that can make a dispositional adjective true do not have to be typical, while the eventive properties making a behavior-related verb true have to. As a result, the range of eventive properties that can make dispositional adjectives true is often broader than the range of eventive properties making the sentence with the corresponding behavior-related verb true. For instance, (22a) may be true if Sascha is respectfully and carefully interacting with a furious customer without losing his temper. This does not make (22b) true, which requires Sascha to *wait*. Similarly, (21a) may be true if Jean was lazy in the way he was writing his paper, but this does not make (21b) true, which rather requires Jean to instantiate typical behavioral patterns of lazy individuals (as, e.g., surfing on a social network lying on a couch).

  We summarize our observations on deadjectival behavior-related verbs as follows. Firstly, we saw that there is no entailment from a behavior-related verb (e.g., *Juliette niaise* 'Juliette behaves in a simple-minded way') to the corresponding adjective (e.g., *Juliette est niaise* 'Juliette is simple-minded'). Secondly, we observed the absence of entailment from the adjective to the related behavior-related verb. We underlined that this absence of entailment is arguably connected to three differences between the adjective and the verb. The property ascribed by the verb may only be eventive, cannot be purely intensional, and has to be typical of the set of individuals defined by the adjective. In contrast, the property ascribed by the adjective can be eventive *or* stative, can be purely intensional (i.e., is never instantiated in an actual event), and is not necessarily a typical property.

4 Previous analyses of behavior-related verbs

In English, behavior-related verbs are either derived without a suffix (the "zero-derived denominal verbs" of Aronoff 1980) or with the suffix *-ize/-ify*. Previous analyses of *-ize/-ify* verbs for English (*despotize, hooliganize, Marxize*) have argued that on the relevant reading, which is often called *similative*, the semantics of these verbs involve an unarticulated comparative component (see Plag 1999; Lieber 1998; 2004):

(26)   "act in a way characterized by (an) 'N'; imitate the manner of (an) 'N'" (Similative)

Plag (1999: 137) posits a single meaning for *-ize*, shown in (27), from which he aims to derive the similative reading. His analysis adopts a Lexical Conceptual Structure approach. Note that the underlined component in (27) is optional and is not active in the intransitive use of these verbs.

(27)   CAUSE ([ ]$_i$, [GO ([$_{Property,Thing}$]$_{Theme,Base}$; [TO[$_{Property,Thing}$]$_{Base/Theme}$])])

Plag proposes that the noun within the verb is interpreted metonymically and refers to the ideas or the manners of 'N'. For instance, in *Marxize*, the proper noun refers to a body of Marx's ideas. Following (27), the verb in its intransitive use is primarily interpreted as 'go to Marx's ideas', that is, to adopt Marx's ideas. The similative reading is "the result of the inference that if one applies the ideas or manners of a certain person, one acts like that person" (Plag 1999: 139–140).[9]

Lieber (2004) proposes that the similative reading lies outside the core meaning of *-ize* verbs and corresponds to a sense extension of the core. The general meaning skeleton she attributes to *-ize*, not given here, has the rough paraphrase "[*x* does something to *y*] such that [*x* causes *y* to become *z*/to go to *z*]" (Lieber 2004: 82). In the sense extension corresponding to the similative reading, the second subevent is dropped, which leaves the first subevent ("[*x* does something to *y*]"), corresponding to the standard schema for activity verbs (Lieber 2004: 86–87). Through a particular pattern of indexing, the base noun is then identified with the highest argument of the affixal skeleton (the subject), leading to an interpretation of (e.g.) *Marxize* as "*x* Marx-does." This, she suggests, corresponds to the expected meaning if we assume that "to 'N'-do" means something like "to do as (an) 'N' does," for example, "to do as Marx does" (Lieber 2004: 88).

Both of these approaches have the merit of trying to provide a unified meaning for *-ify/-ize* verbs. But neither of them manages to capture the semantics of these verbs on their unergative uses. Plag's analysis forces one to postulate that these verbs are primarily change-of-location verbs and that the similative reading is derived from this basic use. But this predicts that on the similative reading, unergative verbs with *-ize* exhibit the properties characteristic of change-of-state verbs, which is not supported by the data. Lieber's analysis does not make explicit what "to 'N'-do" should mean, nor does it state where the reinterpretation as "to do as 'N' does" comes from. Furthermore, neither of these two analyses captures the correlation observed above between the meaning shift of the noun in behavior-related verbs and in the figurative reading of indefinite NPs. They also do not account for the fact that the events denoted have to be typical for 'N'. For example, if

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[9] In the Oxford English Dictionary, *marxize* is attributed the following causative and unergative meanings (the latter being marked as rare): (i) To form or adapt in accordance with Marxist or Marxist–Leninist theories or ideology and (ii) To show Marxist tendencies; to advocate or expound Marxism.

Sanders accidentally drove his car yesterday like Obama did on January 15, 2015, nothing in these analyses would prevent (28) as being an accurate description of what happened.

(28)   Sanders obamized yesterday.

However, the intuition is that Sanders' driving the way he did yesterday does not suffice to make (28) true, whereas it does suffice to make (e.g.) *Sanders drove like Obama yesterday* true. Lieber or Plag might object that only habits of Obama can be taken into account in a definition of a manner (e.g., his habitual way of driving). But (28) would also not seem to be true if Sanders outright imitated Obama's driving, because this property would not appear among the typical properties that speakers commonly attribute to Obama.

5 Previous analyses of the figurative reading of nouns

Since the meaning shift of a noun to a figurative reading in the corresponding behavior-related verb is the same as that of the noun in combination with an indefinite article, one could try to apply a previous analysis of the figurative reading of the noun with an indefinite article to the interpretation of the noun in behavior-related verbs. Unfortunately, existing accounts of these nouns do not capture their figurative reading even if the contrast with the competing bare noun is often observed. Take, for instance, de Swart et al. (2007), who provide one of the most developed analyses of such nouns. According to them, *diplomate* 'diplomat' in its bare version (recall (6)) denotes a capacity (of type *e*), which is then type-shifted to a set expression via their operator CAP. In the indefinite variant (e.g., *un/une diplomate* 'a diplomat'; recall (7)), the determiner triggers a coercion from a capacity to a kind (also of type *e*), followed by the type-shifting to a set expression via the application of Carlson's operator REL, which originates from the determiner. As a result, (7) is said to mean that Juliette is in the set of entities that realizes the kind 'diplomat'. However, as von Heusinger & Wespel (2009) observe, this seems to correctly capture only the literal reading of such a sentence.

Le Bruyn (2010: 144) suggests that the figurative reading can, in fact, be seen as a reinterpretation of the noun as a kind (which he assumes to be basically a capacity noun, following de Swart et al. 2007): "[…] we look for inherent properties we associate with [diplomats] and predicate those of the subject." However, Le Bruyn does not show how one could distinguish between the figurative and the literal readings of an indefinite NP in this way. It seems that another operation on the set of properties of the kind would be required in order to distinguish between these two readings.

Von Heusinger and Wespel (2007: sect. 5) also try to account for the figurative reading of an indefinite NP, but they do not provide the details either. Their proposal is that on this reading, an indefinite NP denotes *manifestations* of the kind 'N'. Accordingly, sentences such as (7) assert that the referent of the subject is in the set of manifestations of the kind 'N'. We may reconstruct their proposal as follows (where REL again is Carlson's realization operator, which holds between a kind and particulars instantiating it):

(29) $[\![\text{a diplomat}]\!] = \lambda x_m[\text{REL}(x_m, \texttt{diplomat}_k)]$
        (The set of manifestations x_m of the kind 'diplomat')

Their strategy is then to construe manifestations of the kind $\texttt{diplomat}_k$ as individuals that have properties typical of diplomats. Even so, in the absence of a longer story about how manifestations of a kind are distinguished from stages or realizations of a kind, this treatment of manifestations, which is formally parallel to the treatment of stages, makes manifestations of a kind look suspiciously similar to stages of a kind. The change in terminology

alone does not guarantee a difference. Arguably, the denotation in (29) simply gives the stages or realizations of the kind 'diplomat', redubbed as "manifestations."[10]

6 A new approach

In this section, we sketch a new approach to behavior-related verbs and the figurative use of nouns. We first look at verbs derived from nouns in section 6.1, starting with verbs derived from common nouns (in section 6.1.2), as well as to the figurative reading of indefinite NPs (in section 6.1.3), and then we extend it to proper nouns (in section 6.1.4). The primary aim of this approach is to account for the entailment pattern illustrated in (8) and (9), and the lack of this pattern witnessed in (14)–(16). Secondly, we extend the analysis further to cover deadjectival behavior-related verbs (in section 6.2). Thirdly, we see how the analysis can derive the causative, anticausative, and non-core transitive uses, and account for the way the morphosyntactic makeup of the predicates restricts the range of readings a behavior-related verb may have (in section 6.3).

6.1 Denominal behavior-related verbs

6.1.1 The relation stereotype from Martin & Piñón (2016)

As various previous authors have suggested, the relevant part of the corresponding noun meaning in a behavior-related verb is the typical – and by "typical" we now mean stereotypical or prototypical – properties associated with the noun meaning, though we will speak of stereotypical properties (i.e. stereotypes) and assume that prototypical properties are among them.[11] The initial idea is to postulate a relation stereotype between nominal properties N and stereotypes S, as in (30), such that S is a stereotype (i.e. a stereotypical property) of N. For example, if N were diplomat, then stereotype(S, diplomat) would state that S is a stereotype of diplomat (i.e. of diplomats), for example, being discreet or carrying a nice briefcase or being well-groomed.

(30) $\lambda N \lambda S.$ stereotype(S,N) 'S is a stereotype of N'   (type $\langle\langle e,t\rangle, \langle\langle e,t\rangle,t\rangle\rangle$)

In (30), we assume for simplicity a classical, non-kind treatment of noun meanings as predicates of individuals, but our approach could be recast using kinds if desired. The relation stereotype could also be intensionalized in various ways, for example, it could be made world-dependent and/or context-dependent, but this is not crucial for our present purposes. Note that although stereotype is an undefined relation in our approach, the hope is that this relation is needed independently of our analysis of behavior-related verbs.[12] Even so, there are three principles that apply to stereotype as we conceive of this relation. The first principle says that every stereotype S of a nominal property N is a property of an individual x or a property of a state s or a property of an event e:

(31)   *Principle.* $\forall S(\exists N(\text{stereotype}(S,N)) \rightarrow \exists x(S(x)) \lor \exists s(S(s)) \lor \exists e(S(e)))$

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[10] To be fair, von Heusinger & Wespel do offer informal reflections on how manifestations and stages differ, but the difference in their formal analysis is ultimately due to an index ("m" for manifestations versus "s" for stages).

[11] The part of the analysis presented in (30)–(36) is taken from Martin & Piñón (2016) and remains unchanged.

[12] The affix *-ish*, which requires 'salient or stereotypical characteristics' (Oltra-Massuet 2017), may be a candidate. Also, Japanese has a number of adjectives expressing stereotypicality (e.g., *rashii*), for which McCready & Ogata (2007) provide an elaborate (intensionalized) semantics involving quantification over stereotypical properties associated with the noun the adjective combines with. Morzycki (2014) (who also discusses Japanese *rashii*) approaches prototypical modifiers such as *real* by appealing to some notion of stereotypicality, too.

The second principle says that if S is a stereotype of N, then S does not entail N, which is to say that S is not a hyponym of N:

(32)   *Principle.* $\forall S\forall N(\texttt{stereotype}(S,N) \rightarrow \neg\forall x(S(x) \rightarrow N(x)))$

Finally, the third principle informally states that if S is a stereotype of N, then S is based on the "facts" of individuals that are N. More formally and verbosely, this principle says that if S is a stereotype of N, then there is an x such that N applies to x, and either S applies to x, or there is a relation R such that R is a thematic relation, and either there is a state s such that S applies to s and R holds between s and x, or there is an event e such that S applies to e and R holds between e and x. Another way of saying this is that this principle requires S to be "grounded" in an individual x that N applies to in such a way that either S applies to x or S applies to a state that x participates in or S applies to an event that x participates in.

(33)   *Principle.* $\forall S\forall N(\texttt{stereotype}(S,N) \rightarrow \exists x(N(x) \wedge$
        $(S(x) \vee (\exists R(\texttt{thematic}(R) \wedge (\exists s(S(s) \wedge R(s,x)) \vee \exists e(S(e) \wedge R(e,x)))))))$

In view of this third principle, it will be useful to define a relation $\texttt{exhibit}$ between individuals x and properties S and N ("x exhibits S with respect to N") such that S is a stereotype of N, and either S applies to x, or there is a relation R such that R is a thematic relation, and either there is a state s such that S applies to s and R holds between s and x, or there is an event e such that S applies to e and R holds between e and x:

(34)   *Definition.* $\texttt{exhibit}(x,S,N)$ ("x exhibits S with respect to N") $:=$
        $\texttt{stereotype}(S,N) \wedge$
        $(S(x) \vee (\exists R(\texttt{thematic}(R) \wedge (\exists s(S(s) \wedge R(s,x)) \vee \exists e(S(e) \wedge R(e,x))))))$

6.1.2 Deriving verbs from common nouns

After these remarks on the relation $\texttt{stereotype}$, let's turn to the question of how behavior-related verbs are derived, using *diplomatiser* 'behave like a diplomat' as an example. The noun *diplomate* 'diplomat' is straightforwardly analyzed as the following predicate of individuals:

(35)   diplomate('diplomat') $\rightsquigarrow$ $\lambda x.\texttt{diplomat}(x)$

Applying the relation $\texttt{stereotype}$ in (30) to this predicate, we derive the set of stereotypes S of diplomats:

(36) $[\lambda N\lambda S.\texttt{stereotype}(S, N)](\lambda x.\texttt{diplomat}(x)) =$ (application)
        $\lambda S.\texttt{stereotype}(S,\lambda x.\texttt{diplomat}(x))$
        'The set of stereotypes S of diplomats'

In (36), the stereotypes S of diplomats may be properties of individuals, states, or events (recall (31)).

Instead of postulating that the meaning of *-iser* applies to a predicate of stereotypes such as the one in (36), it seems more natural to think of *-is-* in the suffix *-is-er* as spelling out a verbal head in charge of introducing stereotypes, for otherwise it would not be clear what element introduces them into the derivation. This verbal head, which we call v_{stereo}, can be spelled out either by *-is-* (or *-ifi-*), or by a covert null suffix in the case of other behavior-related verbs like *patienter*.

It is not the case, however, that *all* *-iser*-verbs involve the stereotype relation. For instance, a predicate such as *alcooliser* 'put alcohol in a liquid, cause to get drunk' arguably does

not involve stereotypicality. Therefore, v_{stereo} should not be equated with -*is*- itself; rather -*is*- may spell out v_{stereo} (as in *diplomatiser*), or not (as in *alcooliser*).

Furthermore, recall that most -*iser* behavior-related verbs additionally have (anti)causative uses, that also involve the stereotype relation, see e.g., (3)). Consequently, we ideally would like our analysis of the verbal head v_{stereo} spelled out by -*is*- in the -*iser* suffix to be extendable to these additional uses. Therefore, we factor out the agentive flavour of Martin & Piñón's (2016) analysis for -*iser*. More concretely, we do not make the verbal head v_{stereo} it realizes responsible for introducing an external argument, and leave the eventuality v it introduces underspecified between events and states. This motivates the following analysis of v_{stereo} as spelled out by -*is*-, which we label as "-*is*-$_{stereo}$":

(37) v_{stereo} = -*is*-$_{stereo}$
  $\leadsto \lambda P \lambda v. \exists S(\texttt{stereotype}(S,P) \wedge S(v)) \wedge (\texttt{event}(v) \vee \texttt{state}(v))$

The predicate in (37) applies to a nominal predicate P, and an eventuality v, and yields the conditions that there is a property S such that S is a stereotype of P, S holds of v, and v is an event or a state. Applying this relation to the nominal predicate in (35), we obtain the following analysis of *diplomatiser*$_{stereo}$:

(38)   diplomat-is$_{stereo}$-er $\leadsto$ $[\lambda P \lambda v. \exists S(\texttt{stereotype}(S,P) \wedge S(v))](\lambda x'.\texttt{diplomat}(x'))$ =
  $\lambda v. \exists S(\texttt{stereotype}(S,\lambda x'.\texttt{diplomat}(x')) \wedge S(v)) \wedge (\texttt{event}(v) \vee \texttt{state}(v))$

To obtain the unergative use, the eventuality predicate in (38) is combined with a Voice head (Kratzer 1996) that introduces an external argument x of an eventuality v that is an event:

(39)   Voice$_{ag}$ $\leadsto$ $\lambda P \lambda x \lambda v. \texttt{agent}(v,x) \wedge P(v) \wedge \texttt{event}(v)$

Applying (39) to (38), we obtain the unergative predicate (40), where the alternative that v is a state is eliminated.

(40)   Voice$_{ag}$ [diplomat-is$_{stereo}$-er] $\leadsto$
  $[\lambda P \lambda x \lambda v. \texttt{agent}(v,x) \wedge P(v) \wedge \texttt{event}(v)]$
  $(\lambda v'. \exists S(\texttt{stereotype}(S,\lambda x'.\texttt{diplomat}(x')) \wedge S(v')) \wedge (\texttt{event}(v') \vee \texttt{state}(v'))) =$
  $\lambda x \lambda v. \texttt{agent}(v,x) \wedge \exists S(\texttt{stereotype}(S,\lambda x'.\texttt{diplomat}(x')) \wedge S(v)) \wedge$
  $(\texttt{event}(v) \vee \texttt{\sout{state}}(v))$

Applied to an individual x and an eventuality v, this relation yields the conditions that x is the agent of v, and there is a property S such that S is a stereotype of diplomats and S holds of v and v is an event.

We can now apply the relation in (40) to the individual constant juliette (for *Juliette*), and derive the predicate of eventualities (more precisely, of events) in (41).

(41)   Juliette [Voice$_{ag}$ [diplomatiser$_{stereo}$]] $\leadsto$
  $\lambda v. \texttt{agent}(v,\texttt{juliette}) \wedge \exists S(\texttt{stereotype}(S,\lambda x'.\texttt{diplomat}(x')) \wedge S(v)) \wedge$
  $\texttt{event}(v)$

6.1.3 The figurative reading of nouns

We now turn to the use of a noun on its figurative reading in an indefinite NP, for example, recall (7), repeated below.

(7)   Juliette est une diplomate.
         Juliette is   a   diplomat
         'Juliette is a diplomat.'
              a.   'Juliette is a diplomat by profession.'   (Literal)
              b   'Juliette has properties typical of diplomats.'   (Figurative)

Since in the figurative reading, the relevant part of the noun is again the stereotypical properties associated to it, we can again employ the relation `stereotype` to treat this reading. However, in this case, it is arguably the meaning of the indefinite article *un/une* 'a(n)' that introduces stereotypes. We use the subscript "*f*" when un_f/une_f applies to a noun and introduces stereotypes, thus triggering the selection of the figurative use of the noun. There are *two* readily available ways of analyzing *un/une* 'a(n)' as introducing stereotypes.

   The *first* is give *un/une* 'a(n)' a non-quantificational (predicative) analysis: the meaning of the indefinite article[13] applies to a nominal property N and yields a predicate of individuals x such that there exists a stereotype S that x exhibits with respect to N, as in (42).

(42) un/une_{f_nq} ('a(n)') ⤳ $\lambda N\lambda x.\exists S(\texttt{exhibit}(x,S,N))$

Applied to the predicate diplomat, this meaning of the indefinite article yields the following predicate, which denotes the set of individuals x such that there is a stereotype S x exhibits with respect to diplomats:

(43) un/une_{f_nq} diplomate ('a diplomat') ⤳
          $[\lambda N\lambda x.\exists S(\texttt{stereotype}(S,N) \wedge S(x))](\lambda x'.\texttt{diplomat}(x'))$ = (application)
          $\lambda x.\exists S(\texttt{exhibit}(x,S,\lambda x'.\texttt{diplomat}(x')))$

The following simple-minded analysis of the copula *est* 'is' (ignoring tense) takes the copula to apply to a predicate P of individuals in order to yield a relation between states s and individuals x such that P applies to x and x is the theme of s:

(44)   est('is') ⤳ $\lambda P\lambda x\lambda s.P(x) \wedge \texttt{theme}(s,x)$

Observe that the states s denoted by this analysis of *est* 'is' are "light" in that they barely have any descriptive content: the only condition is that the individuals x are their themes. This "lightness" suggests the following innocent principle, which says that if an individual x stands in a thematic relation R to an event e, then there is a state s such that x is the theme of s:

(45)   *Principle.* $\forall x(\exists R\exists e(\texttt{thematic}(R) \wedge R(e,x)) \rightarrow \exists s(\texttt{theme}(s,x)))$

In other words, if an individual x participates (thematically) in an event e, then there is a state s that x is the theme of. This principle will be useful below.

   Applying the analysis of *est* 'is' in (44) to the predicate in (43), we derive the relation between states s and individuals x such that there is a stereotype S that x exhibits with respect to diplomats and x is the theme of s:

(46)   est un/une_{f_nq} diplomate ('is a diplomat') ⤳ (via application)
          $\lambda x\lambda s.\exists S(\texttt{exhibit}(x,S,\lambda x'.\texttt{diplomat}(x'))) \wedge \texttt{theme}(s,x)$

_____

[13] Which is designated by un/une_{f_nq}, where the subscript "f_nq" stands for "figurative non-quantificational."

If this relation is applied to the individual constant juliette, we obtain the predicate of states s such that there is a stereotype S of diplomats that Juliette exhibits and Juliette is the theme of s:

(47) Juliette est une$_{f.nq}$ diplomate ('Juliette is a diplomat') ⤳ (via application)
$\lambda s.\exists S(\texttt{exhibit}(\texttt{juliette},S,\lambda x'.\texttt{diplomat}(x'))) \wedge \texttt{theme}(s,\texttt{juliette})$

We will briefly mention the *second* readily available way of analyzing *un/une* 'a(n)' as introducing stereotypes, which is a quantificational analysis (hence *un/une$_{f.q}$*):

(48) un/une$_{f.q}$ ('a(n)') ⤳ $\lambda N\lambda R\lambda v.\exists x(\exists S(\texttt{exhibit}(x,S,N)) \wedge R(v,x))$

In (48), R is a relation (corresponding to the VP meaning) between eventualities (events or states) v and individuals x. Applied to the predicate $\texttt{diplomat}$, the following quantifier is derived, which if applied to a relation R between eventualities and individuals, yields a predicate of eventualities v such that there is an individual x and a stereotype S such that x exhibits S with respect to diplomats and R holds between v and x:

(49) un/une$_{f.q}$ diplomate ('a diplomat') ⤳ (via application)
$\lambda R\lambda v.\exists x(\exists S(\texttt{stereotype}(x,S,\lambda x'.\texttt{diplomat}(x'))) \wedge R(v,x))$

This use of *un/une$_{f.q}$ diplomate* 'a diplomat', which is figurative and quantificational, figures in sentences such as (10).

We conclude this section with the remark that the analyses presented above allow us to account for why the sentence in (9) with *diplomatiser* 'behave like a diplomat' (see (41)) entails the sentence in (9c) with *une$_{f.nq}$ diplomate* 'a diplomat' (see (46)), ignoring tense. This entailment is due to the following fact:

(50) *Fact.* $\forall e(\texttt{agent}(e,\texttt{juliette}) \wedge \exists S(\texttt{stereotype}(S,\lambda x'.\texttt{diplomat}(x')) \wedge S(e)) \rightarrow$
$\exists s(\exists S(\texttt{exhibit}(\texttt{juliette}, S,\lambda x'.\texttt{diplomat}(x'))) \wedge \texttt{theme}(s,\texttt{juliette}))$

The proof of this fact is straightforward and uses the definition in (34) and the principle in (45). Intuitively, this entailment is valid because a stereotype that makes (9) true is necessarily eventive, but then it counts as a stereotype that also makes (9c) true.

We can also show that the reverse entailment is not valid (recall also (14)), because a stereotype that makes (9c) true need not be eventive, whereas a stereotype that makes (9) true is necessarily eventive.

6.1.4 Deriving verbs from proper nouns

Unsurprisingly, we adopt the same basic approach to behavior-related verbs from proper nouns, but with the difference that the stereotypes are now of individuals as opposed to nominal properties (sets of individuals). Note, however, that the relation $\texttt{stereotype}$ as given in (30) is not applicable to individuals directly, and so we need to define a derived relation, designated by $\texttt{stereotype}'$, between stereotypes S and individuals x, which effectively treats x as a singleton (the set of individuals identical to x), as shown in (51).

(51) *Definition.* $\lambda x\lambda S.\texttt{stereotype}'(S,x)$ ("S is a stereotype of x") :=
$\lambda x.[[\lambda N\lambda S.\texttt{stereotype}(S,N)](\lambda x'.x' = x)]$ = (application)
$\lambda x\lambda S.\texttt{stereotype}(S,\lambda x'.x' = x)$

As an illustration, let's consider the proper noun *Sarkozy* and its standard treatment as an individual constant, here $\texttt{sarkozy}$:

(52)   Sarkozy ⤳ `sarkozy`

Applying the relation `stereotype`′ to this constant, we obtain the set of stereotypes of Sarkozy:

(53) λS.`stereotype`′$(S,$`sarkozy`$)$
         'The set of stereotypes S of Sarkozy'

In order to derive the behavior-related verb *sarkozyser* 'behave like Sarkozy', we need a version of *-is-* (cf. *-is-$_{stereo}$* in (37)) that is applicable to individuals instead of nominal properties. This version, *-is-$_{stereo′}$*, is analogous to *-is-$_{stereo}$* but makes use of `stereotype`′ in place of `stereotype`:

(54) $v_{stereo′} = $ *-is-$_{stereo′}$*
         ⤳ $\lambda P \lambda v.\exists S($`stereotype`′ $(S,P) \wedge S(v)) \wedge ($`event`$(v) \vee$ `state`$(v))$

The behavior-related verb *sarkozyser* 'behave like Sarkozy' is then derived via the application of *-is-$_{stereo′}$* to *Sarkozy* (triggering elision of the /i/) and the combination of the input of this operation with the Voice head (39):

(55)   Voice$_{ag}$ [sarkozy-is$_{stereo′}$-er] ⤳ (via application)
         $[\lambda P \lambda x \lambda v.$`agent`$(v,x) \wedge P(v) \wedge$ `event`$(v)]$
         $(\lambda v'.\exists S($`stereotype`′ $(S,$`sarkozy`$) \wedge S(v')) \wedge ($`event`$(v') \vee$ `state`$(v'))) = \lambda x \lambda v.$
         `agent`$(v,x) \wedge \exists S($`stereotype`′ $(S,$`sarkozy`$) \wedge S(v)) \wedge ($`event` $(v) \vee$ ~~`state`(v)~~$)$

As seen in (55), the result is a relation between events v and individuals x such that x is the agent of v, v is an event, and there is an S such that S is a stereotype of Sarkozy and S applies to v.

    Applied to the individual constant `macron`, the relation in (55) yields (ignoring tense) the predicate of events e such that Macron is the agent of e, e is an event, and there is an S such that S is a stereotype of Sarkozy and S applies to e:

(56)   Macron [Voice$_{ag}$ [sarkozy-is$_{stereo′}$-er] ('Macron behave like Sarkozy') ⤳ (via application)
         $\lambda v.$`agent`$(v,$`macron`$) \wedge \exists S($`stereotype`$(S,$`sarkozy`$) \wedge S(v)) \wedge ($`event`$(v) \vee$ ~~`state`(v)~~$)$

The present approach can be naturally extended to treat examples where a proper noun appears with an indefinite article:

(57)   a.   Macron est un (vrai) Sarkozy.
               'Macron is a (true) Sarkozy.'

         b.   Macron est un autre Sarkozy.
               'Macron is another Sarkozy.'

To treat the figurative use of the indefinite NP in (57), it is first convenient to define a derived relation `exhibit`′ that is based on the relation `stereotype`′, analogous to the relation `exhibit` from (34) (which is based on `stereotype`):

(58)   *Definition.* `exhibit`′ (x,S,y) ("x exhibits S with respect to y") $:=$
         `stereotype`′ $(S,y) \wedge$
         $(S(x) \vee (\exists R($`thematic`$(R) \wedge (\exists s(S(s) \wedge R(s,x)) \vee \exists e(S(e) \wedge R(e,x)))))))$

The next step is to propose an analogue of *un/une$_{f\_nq}$* from (42) that makes use of the relation `exhibit'`, applying to individuals:

(59)   un/une$_{f\_nq'}$ ('a(n)') ⤳ $\lambda y \lambda x. \exists S(\texttt{exhibit'}(x,S,y))$

Applied to `sarkozy`, this relation yields the predicate of individuals x such that there is a stereotype S that x exhibits with respect to Sarkozy:

(60)   une$_{f\_nq'}$ Sarkozy ('a Sarkozy') ⤳ (via application)
         $\lambda x. \exists S(\texttt{exhibit'}(x,S,\texttt{sarkozy}))$

If the meaning of *est* 'is' given in (44) is then applied to this predicate, the following relation between states and individuals is derived (cf. (46)):

(61)   est un$_{f\_nq'}$ Sarkozy ('is a Sarkozy') ⤳ (via application)
         $\lambda x \lambda s. \exists S(\texttt{exhibit'}(x,S,\texttt{sarkozy})) \wedge \text{theme}(s,x)$

Finally, if we apply this relation to the individual constant `macron`, we obtain the predicate of states s such that there is a stereotype S that Macron exhibits with respect to Sarkozy and Macron is the theme of s, which is arguably a reasonable rendering of *un (vraie/autre) Sarkozy* 'a (true)/another Sarkozy' in (57) (neglecting the adjective):

(62)   Macron est un$_{f\_nq'}$ (vrai) Sarkozy ('Macron is a (true) Sarkozy') ⤳ (via application)
         $\lambda s. \exists S(\texttt{exhibit'}(\texttt{macron},S,\texttt{sarkozy})) \wedge \text{theme}(s,\texttt{sarkozy})$

We point out that on this approach, *Macron sarkozyse$_{pn}$* 'Macron behaves like Sarkozy' entails the sentence in (57), but not vice versa, for the same reasons as before (cf. (50)):

(63)   *Fact.* $\forall e(\text{agent}(e,\texttt{macron}) \wedge \exists S(\texttt{stereotype'}(S,\texttt{sarkozy}) \wedge S(e)) \rightarrow$
         $\exists s(\exists S(\texttt{exhibit'}(\texttt{macron},S,\texttt{sarkozy})) \wedge \text{theme}(s,\texttt{macron}))$

6.2 Deadjectival behavior-related verbs

6.2.1 Semantic analysis

We now extend further the analysis to deadjectival behavior-related verbs, using *bêtifier* 'behave in a stupid way' as an example.

The adjective *bête* 'stupid' is analyzed as a predicate of individuals:

(64)   bête ('stupid') ⤳ $\lambda x. \texttt{stupid}(x))$

The adjective itself does not introduce stereotypes. So for instance, (65) simply states that Juliette is stupid, not that she has stereotypical properties of stupid people.

(65)   Juliette est bête.
         'Juliette is stupid.'

Just like with nouns, it is the suffix (or the indefinite *un$_f$/une$_f$* when the adjective can be nominalized) which is in charge of introducing the stereotypical relation. Turning to the case of *bêtifier*, we give the verbalizing suffix *-ifi-$_{stereo}$* the same analysis as for *-is-$_{stereo}$* (see (37)):

(66)   -ifi-$_{stereo}$ ⤳ $\lambda P\lambda v.\exists S(\texttt{stereotype}(S,P) \wedge S(v)) \wedge (\texttt{event}(v) \vee \texttt{state}(v))$

Applying the predicate *-ifi-* to the adjectival predicate in (64) and combining the resulting predicate with the Voice head (39), we obtain the following analysis for *bêtifier* (again, where the alternative that *v* is a state is eliminated).

(67)   Voice$_{ag}$ [bête-ifi$_{stereo}$-er] ⤳
         $[\lambda P\lambda x\lambda v.\texttt{agent}(v,x) \wedge P(v) \wedge \texttt{event}(v)]$
         $(\lambda v'.\exists S(\texttt{stereotype}(S,\lambda x'.\texttt{stupid}(x')) \wedge S(v')) \wedge (\texttt{event}(v') \vee \texttt{state}(v'))) =$
         $\lambda x\lambda v.\texttt{agent}(v,x) \wedge \exists S(\texttt{stereotype}(S,\lambda x'.\texttt{stupid}(x')) \wedge S(v)) \wedge$
         $(\texttt{event}(v) \vee \texttt{\sout{state}}(v))$

Applied to an individual *x* and an eventuality *v*, this relation yields the conditions that *x* is the agent of *v*, and there is a property *S* such that *S* is a stereotype of stupid individuals and *S* holds of *v* and *v* is an event. We can apply the relation in (67) to the individual constant juliette (for *Juliette*), and derive the predicate of eventualities (more precisely, of events) in (68).

(68)   Juliette [Voice$_{ag}$ [bête-ifi$_{stereo}$er]] ('Juliette behave like stupid individuals') ⤳
         $\lambda v.\texttt{agent}(v,\texttt{juliette}) \wedge \exists S(\texttt{stereotype}(S,\lambda x'.\texttt{stupid}(x')) \wedge S(v)) \wedge \texttt{event}(v)$

6.2.2 Deriving the entailment patterns between the verb and the adjective

As illustrated in (19), the sentence with the deadjectival behavior-related unergative verb does not entail the sentence with the corresponding adjective (ignoring tense), see also the absence of entailment between (69a) and (69b) below.

(69)   a.   Juliette bêtifie.
            'Juliette behaves as stupid people typically do.'
       b.   ↛ Juliette est bête.
            'Juliette is stupid.'

The entailment does not succeed for sentence (69a) only requires Juliette to perform an act *e* such that a stereotypical property of stupid individuals holds of this act *e*, what she can do without being stupid herself.

   We also explain why sentences with a behavior-related verb derived from an adjective *P* do not entail that the events they denote satisfy the property denoted by *P*, as required by the manner adverbial derived from the adjective (remember that sentences such as *Juliette patiente impatiemment* 'Juliette is waiting impatiently' are not contradictory). This is so because an event *e* may satisfy a stereotypical property of the set of individuals defined by the adjective (e.g., the set of stupid entities) without *e* being in that set (e.g., without being a stupid event); recall our second principle (32).

   We also account as before for why the sentence with the adjective (e.g., (69b)) does not entail the sentence with the corresponding behavior-related verb (e.g., (69a)). While the verbal sentence necessarily ascribes an eventive property, the adjectival sentence may also ascribe a stative one.

   It happens, however, that the adjectival sentence indicates – through, e.g., the perfective aspect – that the property ascribed is eventive (see, e.g., *Jean a été patient*). Even in this case, the entailment towards the corresponding behavior-related verb is blocked, because the behavior-related verb, but not the adjective, requires a stereotype to hold of *e*.

6.3 The causative, anticausative and non-core transitive uses

Now that we have accounted for the entailment patterns observed between the verb and the corresponding noun or adjective and provide a compositional analysis of behavior-related verbs in their unergative use, we look at the (anti)-causative and non-core transitive uses behavior-related verbs may display.

6.3.1 Morphosyntactic restrictions

A number of behavior-related verbs undergo the causative alternation, and thus have causative and anticausative uses in addition to their unergative use. This is rather surprising, given that unergatives typically do not participate in the causative alternation in languages such as French or English (see (70a)); in fact, causativization of unergatives is even more restricted in French than in English, since in the latter language, causativizing unergatives is possible in resultative constructions (which do not exist in French); see the contrast between (70b) and its English translation.[14]

(70)   a. *Le comédien a ri   la foule.
              the comedian laugh.PF.3SG the crowd
              *'The comedian laughed the crowd.'

        b. Pierre a   couru (*le chien) au   parc.
              Pierre has run   the dog   to-the park
              'Pierre ran (the dog) to the park.'

The availability of the additional causative and anticausative uses depends on the morphological make-up of the verb. Most behavior-related unergative verbs formed with the suffix *-is-* or *-ifi-* can be used as causative or anticausative verbs, even if these latter uses are sometimes not lexicographed in dictionaries (as is the causative use of *diplomatiser*, which is not listed in the *TLFi*), see for example, (3) repeated below.[15]

(3)   Sarkozy diplomatise   le Hezbollah.
         Sarkozy diplomat.VBZ.PRES.3SG the Hezbollah
         'Sarkozy causes Hezbollah to get typical properties of diplomatic
         organizations.'   (Internet)

In contrast, "zero-derived" behavior-related verbs in general do not undergo the causative alternation; see the generalization 1 in (71).

(71)   Generalization 1: Zero-derived behavior-related verbs disallow causative and anticausative uses.

For instance, the examples in (72), all found on the Internet, become infelicitous when the suffixed variant is replaced by the zero-derived variant enclosed in square brackets.

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[14] In English, manner verbs of motion are taken no to causativize by Hale & Keyser (1987) (*John ran the dog*), but they can in resultative constructions (Folli & Harley 2006 a.o). In languages such as Hungarian or Finnish, causativization of unergatives occurs more freely (Horvath & Siloni 2011). Note that *courir* 'run' is one of the French motion verbs that can yield both a locational and goal-directed reading for the PP; thus sentence (70b) without the object can not only mean that Pierre ran in the park, but also that he ran to the park. Motion verbs that pattern like *courir* are basically the same as those identified for Italian by Folli & Ramchand (2005).

[15] The *TLFi* or *Trésor de la langue française informatisé* is a digital version of the "Treasury of the French Language," a 16-volume dictionary of the French language of the 19th and 20th centuries, freely available via a web interface.

(72) a. Sans   parler   de Nintendo qui gaminise   [*gamine]   ou
          without speak.INF of Nintendo who kid.VBZ.PRES.3SG kid.PRES.3SG or
          retraitise   le jeu vidéo.   (Internet)
          pension.VBZ.PRES.3SG the game video
          'Without mentioning Nintendo who causes video games to have properties
          that kids or retired people typically have.'

      b. Et si l'Élysée   avait tout « macronisé » [*macronné]?   (Internet)
          and if the Elysee had   all macron.VBZ.PP macron.PP
          'What if the *Élysée* macronized everything?'

      c. Merkel merkelise   [*merkele]   l'Europe.
          Merkel merkel.VBZ.PRES.3SG merkel.PRES.3SG the=Europe
          'Merkel causes Europe to get typical properties of Merkel.'

Other examples of behavior-related *-iser* or *-ifier* with salient causative and anticausative
uses are given in the Appendix in (102).

   An apparent exception to the generalization 1 in (71) is the zero-derived verb *materner*
'mother', sharing its root with the adjective *maternel* 'maternal/motherly'. This verb has a
transitive use, as in (73).

(73)   Paul a materné   (ses poupées) toute la   journée.
        Paul mother.PF.3SG his dolls   whole the day
        'Paul mothered (his dolls) the whole day.'

However, while (3) entails that the *theme* has a typical property of diplomats, (73) entails
that the *agent* behaves (with the theme) as mothers typically do. Furthermore, the transi-
tive use of (73) is not causative. In Rappaport Hovav & Levin's (1998) typology, *materner*
under its transitive use should rather be classified among so-called non-core transitive
verbs, which are manner (activity) verbs. One of the diagnostics differentiating causatives
(which are core transitive verbs) from non-core transitives is whether the direct object can
be omitted (and this without the verb enduring a meaning shift). As (73) shows, it can in
the case of *materner*. In contrast, in (3), the omission of the object would force the selec-
tion of the unergative meaning (under which *Sarkozy* rather than Hezbollah has a typical
property of diplomats), which is not entailed by (3). As observed by Rappaport Hovav &
Levin (1998), Alexiadou et al. (2015) and others, core vs. non-core transitive verbs differ
by their aspectual properties and event structure; while the former have a complex event
structure – an event and a result state in Alexiadou et al.'s (2015) framework – and yield
telic predicates when combined with a quantized object, the latter denote processes and
may also yield atelic predicates when combined with a quantized object. This difference
is reflected in the distribution of frame adverbials, see (74).

(74) a. Sarkozy a diplomatisé   le Hezbollah en deux semaines.
          Sarkozy diplomat.VBZ.PF.3SG the Hezbollah in two weeks
          'Sarkozy diplomatized Hezbollah in two weeks.'

      b. #Paul a materné   ses poupées en dix minutes.
          Paul mother.PF.3SG his dolls   in ten minutes
          Intended: 'Paul mothered his dolls in ten minutes.'

Finally, like non-core transitive verbs, *materner* does not anticausativize (it cannot be used
to mean *become motherly*), and transitive sentences built with such verbs do not entail a
change in the theme's referent.

In summary, predicates such as *materner* are not true exceptions to the generalization (71) which says that zero-derived behavior-related verbs do not undergo the causative alternation, since they do not have a causative semantics in any of their uses.

We call predicates such as *materner behavior-related non-core transitive verbs*. This sub-type of behavior-related verbs is poorly represented in French and seems much more frequent in English, see the list in (75), from Clark & Clark (1979). The English predicates in (75) have no French counterpart; *tyranniser* 'tyrannize' and *vamper* 'vamp' are among the few French examples of this subclass of behavior-related verbs.

(75) a. butcher the cow   (Behavior-related non-core transitive verbs)
   b. nurse the patient
   c. doctor the victim
   d. nursemaid the baby
   e. tutor the boy
   f. parent a child

A second generalization on the way morphosyntax constrains the range of meanings behavior-related may have concerns prefixed verbs, see (76).

(76) Generalization 2: Prefixed behavior-related verbs do not have unergative uses.

For instance, *bêtifier* '(cause to) behave in a stupid way', *niaiser* 'behave in a simple-minded way', *canailler* 'behave as a rascal' all are behavior-related unergative verbs, see (77a) and (78a), but the prefixed verbs derived from the same adjectival or nominal root – *abêtir* 'make (more) stupid', *enniaiser* 'make (more) stupid', *encanailler* 'strip somebody of their social status by making them socializing with scoundrels' – do not: the latter only have causative or anticausative uses, see (78) and (80). Table 1 offers a summary of the restrictions imposed by the morphosyntactic makeup of behavior-related verbs on their unergative, (anti-)causative and non-core transitive uses.[16]

(77) a. Pierre bêtifie.
    Pierre stupid.VBZ.PRES.3SG
    'Pierre acts/is acting in a stupid way.'

Table 1: Restrictions imposed by the morphosyntactic makeup of behavior-related verbs on their unergative, (anti-)causative and non-core transitive uses.

morphosyntactic makeup	example	unergative	(anti-)causative	non-core transitive
zero-derived verbs	*niaiser*	✓	✗	✗
	materner	✓	✗	✓
(unprefixed) verbs	*bêtifier*	✓	✓	✗
suffixed with *-iser/-ifier*	*tyranniser*	✓	✗	✓
prefixed verbs	*enniaiser*	✗	✓	✗
	désentimentaliser	✗	✓	✗

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[16] Note that the prefixes and the suffixes *-iser/-ifier* are not in complementary distribution. In particular, *dé-* is compatible with *-iser/-ifier* verbs; see, for example, *décrétiniser* 'cause to be less dumb', *démarxiser* 'cause to be less marxist'. When the unprefixed *-iser/-ifier* verbs have an unergative use, they lose it once they are prefixed. So for instance, *marxiser* can either mean 'develop thoughts like Marx' or 'cause to be (more) marxist', but *démarxiser* does not have an unergative meaning. The few non-core transitive verbs built with the suffix *-iser/-ifier* do not have natural prefixed uses, which is why we do not provide examples of this type in Table 1.

          b.   Pierre bêtifie   les enfants.
               Pierre stupid.VBZ.PRES.3SG the children
               'Pierre makes/is making children (more) stupid.'

          c.   Vous ne   trouvez pas qu'on   se bêtifie   à rester tout
               you NEG find   NEG that one REFL=stupid.VBZ.PRES.3SG to stay   all
               le   temps sur la   plage?   (M. Proust)
               the time   on   the beach
               'Don't you find that we get (more) dumb by staying all the time on the beach?'

(78)   a.   *Pierre abêtit.
               Pierre TRZ.stupid.VBZ.PRES.3SG
               Intended: 'Pierre acts/is acting in a stupid way'.

          b.   Pierre abêtit   les enfants.
               Pierre TRZ.stupid.VBZ.PRES.3SG the children
               'Pierre causes/is causing the children to get (more) stupid.'

          c.   Pierre s'abêtit.
               Pierre REFL=TRZ.stupid.VBZ.PRES.3SG
               'Pierre gets/is getting (more) stupid/causes him to get more stupid.'

(79)   a.   Pierre niaise/   canaille.
               Pierre naive.PRES.3SG rascal.PRES.3SG
               'Pierre acts/is acting in a stupid way/as a rascal'.

          b.   *Pierre niaise/   canaille   les enfants.
               Pierre naive.PRES.3SG rascal.PRES.3SG the children
               Intended: 'Pierre makes/is making children stupid/behaving like rascals.'

          c.   *Pierre se niaise/   se canaille.
               Pierre REFL=naive.PRES.3SG REFL=rascal.PRES.3SG
               Intended: 'Pierre makes/is making himself stupid/behaving like rascals.'

(80)   a.   *Pierre enniaise/   encanaille.
               Pierre TRZ.naive.PRES.3SG TRZ.rascal.PRES.3SG
               Intended: 'Pierre acts/is acting in a stupid way/as a rascal'.

          b.   Pierre enniaise/   encanaille   les enfants.
               Pierre TRZ.naive.PRES.3SG TRZ.rascal.PRES.3SG the children
               'Pierre makes/is making children (more) stupid/behaving like rascals.'

          c.   Pierre s'enniaise/   s'encanaille.
               Pierre REFL=TRZ.naive.PRES.3SG REFL=TRZ.rascal.PRES.3SG
               'Pierre gets/is getting (more) stupid' or 'Pierre causes/is causing himself to
               get (more) stupid.'

6.3.2 Semantic analysis

In order to capture the causative and anticausative uses, we start again with (38):

(38)   diplomat-is-$_{stereo}$-er ⤳
         $\lambda v.\exists S(\texttt{stereotype}(S,\lambda x'.\texttt{diplomat}(x')) \wedge S(v)) \wedge (\texttt{event}(v) \vee \texttt{state}(v))$

In the causative sentence (3), v is a state of which the referent of the internal argument is the theme. In the spirit of recent work by Zeller (2001) and Lohndal (2014), we severe the internal argument from the verbal predicate and assume that this argument is introduced by a separate head. We attribute the semantics (81) to this head (that we label as 'Trans', after Zeller 2001).

(81)   Trans ⤳ $\lambda P \lambda y \lambda v.\text{theme}(v,y) \wedge P(v)$

Supposing that the verbal predicate *diplomatiser* 'diplomatize' is combined with the verbal head Trans (81), we obtain the following semantic analysis for this VP:

(82)   Trans [diplomat-is$_{stereo}$-er] ⤳
         $[\lambda P \lambda y \lambda v.\text{theme}(v,y) \wedge P(v)]$
         $(\lambda v'.\exists S(\text{stereotype}(S,\lambda x'.\text{diplomat}(x')) \wedge S(v')) \wedge (\text{event}(v') \vee \text{state}(v'))) =$
         $\lambda y \lambda v.\text{theme}(v,y) \wedge \exists S(\text{stereotype}(S,\lambda y'.\text{diplomat}(y')) \wedge S(v)) \wedge (\text{event}(v) \vee \text{state}(v))$

Applied to an individual y and to an eventuality v, this relation yields the conditions that y is the theme of v, and there is a property S such that S is a stereotype of diplomats and S holds of v, and v is an event or a state.

 We can now apply the relation in (82) to the individual constant hezbollah (for *Hezbollah*), and derive the predicate of eventualities in (83).

(83)   Hezbollah [Trans [diplomat-is $_{stereo}$-er]] ⤳
         $\lambda v.\text{theme}(v,\text{hezbollah}) \wedge \exists S(\text{stereotype}(S,\lambda x'.\text{diplomat}(x')) \wedge S(v)) \wedge (\text{event}(v) \vee \text{state}(v))$

In the next step, the VP represented in (83) is combined with a head introducing an eventuality v'' causing a result v''' which is a state. We call this head 'Cause', see (84).[17]

(84)   Cause ⤳ $\lambda P \lambda v''.\exists v'''(\text{cause}(v'',v''') \wedge P(v''') \wedge \text{state}(v'''))$

Applying (84) to (83), we obtain the following predicate of events, where the alternative that v is an event is eliminated:

(85)   Cause [Hezbollah [Trans [diplomat-is$_{stereo}$-er]]] ⤳
         $[\lambda P \lambda v''.\exists v'''(\text{cause}(v'',v''') \wedge P(v''') \wedge \text{state}(v'''))]$
         $(\lambda v.\text{theme}(v,\text{hezbollah}) \wedge$
         $\exists S(\text{stereotype}(S,\lambda x'.\text{diplomat}(x')) \wedge S(v)) \wedge (\text{event}(v) \vee \text{state}(v)) =$
         $\lambda v''.\exists v(\text{theme}(v,\text{hezbollah}) \wedge \text{cause}(v'',v) \wedge$
         $\exists S(\text{stereotype}(S,\lambda x'.\text{diplomat}(x')) \wedge S(v)) \wedge (\text{event}(v) \vee \text{state}(v)))$

The analysis of *diplomatiser* in (85) captures the anticausative use, exemplified in (4) repeated below, where *se* is semantically inert; see Schäfer (2008) for the syntactic details.[18]

(4)   Le   Hezbollah s'est diplomatisé.
         the Hezbollah REFL = diplomat.VBZ.PF.3SG
         'Hezbollah became a diplomatic organization.'

In order to obtain the causative use of this predicate, we combine (85) with the Voice head (39) (Alexiadou et al. 2006):

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[17] We assume with Kratzer (2005), Schäfer (2008) and Alexiadou et al. (2006; 2015) that we can dispense with the BECOME predicate in the representation of lexical causatives, and simply be left with a causing event e and a result state s. Under this view, causative and anticausative predicates have exactly the same event structure, and semantically differ only by the presence vs. absence of Voice. Thus in this framework, BECOME is in a sense redefined as a hyponym of CAUSE (Martin forthcoming).

[18] The reflexive form in (4) may also be interpreted reflexively (*Hezbollah diplomatized itself*), but this reflexive use receives a causative transitive semantics (*Hezbollah causes itself to have typical properties of diplomats*), irrelevant for the anticausative use that (4) is meant to illustrate.

(86)   Voice$_{ag}$ [Cause [Hezbollah [Trans [diplomat-is$_{stereo}$-er]]]] ⤳
        [$\lambda P\lambda x\lambda v'$.agent($v'$,$x$) $\wedge$ $P(v')$ $\wedge$ event(v')]
        ($\lambda v''$.$\exists v$(theme(v,hezbollah) $\wedge$ cause(v'',v) $\wedge$
        $\exists S$(stereotype(S,$\lambda x'$.diplomat(x')) $\wedge$ $S(v)$) $\wedge$ state(v))) =
        $\lambda x\lambda v''$.agent(v'',x) $\wedge$ $\exists v$(cause(v'',v) $\wedge$ theme(v,hezbollah) $\wedge$
        $\exists S$(stereotype(S,$\lambda x'$.diplomat(x')) $\wedge$ $S(v)$) $\wedge$ state(v))

The predicate in (86) applies to an individual x, and an eventuality v'' such that x is the agent of v'', v'' is an event, v'' causes a v, and there is a property S such that S is a stereotype of diplomats, S holds of v, Hezbollah is the theme of v, and v is a state.

    Finally, we extend the analysis to non-core transitive behavior-related verbs, using *tyranniser* 'tyrannise' as an example. The strategy consists in deriving first a transitive predicate via the application of Trans, and to combine the resulting predicate with the Voice head. The head Cause does not enter the composition of *tyranniser*, which is not causative when used transitively, as observed in section 6.3.1.

    We start with the noun *tyran* 'tyrant', analyzed as a predicate of individuals, see (87), and derive the set of stereotypes S of tyrants by applying the relation stereotype in (30) to this predicate, see (88). Next, we apply the predicate *-is-$_{stereo}$* to the resulting nominal predicate, and obtain the predicate in (89).

(87)   tyran ('tyrant') ⤳ λx.tyrant(x)

(88)   [$\lambda N\lambda S$.stereotype(S,N)](λx.tyrant(x)) = λS.stereotype(S,λx.tyrant(x))
        'The set of stereotypes S of tyrants'

(89)   tyran-n-is$_{stereo}$-er ⤳
        λv.$\exists S$(stereotype(S,$\lambda x'$.tyrant(x')) $\wedge$ $S(v)$) $\wedge$ (event(v) $\vee$ state(v))

In the next step, we combine (89) with the Trans head (81), and obtain (90).

(90)   Trans [tyran-n-is$_{stereo}$-er] ⤳
        [$\lambda P\lambda y\lambda v$.theme($v$,$y$) $\wedge$ $P(v)$ $\wedge$ event(v)]
        ($\lambda v'$.$\exists S$(stereotype(S,$\lambda x'$.tyrant(x')) $\wedge$ $S(v')$) $\wedge$ (event(v') $\vee$ state(v'))) =
        $\lambda y\lambda v'$.theme(v',y) $\wedge$
        $\exists S$(stereotype(S,$\lambda x'$.tyrant(x')) $\wedge$ $S(v')$) $\wedge$ (event(v') $\vee$ state(v'))

Next, the predicate (90) with Juliette for the value of y is combined with the Voice head (39) introducing the external argument, which yields the relation in (91), where the alternative that v is a state is eliminated:

(91)   Voice$_{ag}$ [Juliette [Trans [tyran-n-is$_{stereo}$-er]]] ⤳
        [$\lambda P\lambda x\lambda v$.agent($v$,$x$) $\wedge$ $P(v)$ $\wedge$ event(v)]
        ($\lambda v'$.theme(v',juliette) $\wedge$
        $\exists S$(stereotype(S,$\lambda x'$.tyrant(x')) $\wedge$ $S(v')$) $\wedge$ (event(v') $\vee$ state(v'))) =
        $\lambda x\lambda v'$.agent(v',x) $\wedge$ theme(v',juliette) $\wedge$
        $\exists S$(stereotype(S,$\lambda x'$.tyrant(x')) $\wedge$ $S(v')$) $\wedge$ (event(v') $\vee$ ~~state(v')~~)

Applied to an individual x and an eventuality v', this relation yields the conditions that x is the agent of v', Juliette is the theme of v', v' is an event, there is a property S such that S is a stereotype of tyrants, and S holds of v'. Thus this relation does not convey any change in Juliette, which conforms to the observation in section 6.3.1.

Finally, let us see how the analysis can account for the restrictions imposed by the morphosyntactic makeup of the verb on the range of available uses displayed by behavior-related verbs, recall Table 1 and the generalizations (71) and (76) repeated below.

(71)   Generalization 1: Zero-derived behavior-related verbs disallow causative and anticausative uses.

(76)   Generalization 2: Prefixed behavior-related verbs do not have unergative uses.

To account for (71), we simply stipulate that while both *-is-/-ifi-* and the null suffix may spell out the verbal head v_{stereo}, only *-is-/-ifi-* may optionally also spell out the Cause head necessary to obtain the causative and anticausative predicate (without necessarily doing so however, since some behavior-related verbs built with *-is-*, such as *tyranniser*, do not have a causative meaning).

To account for (76), we assume that the prefix necessarily spells out Cause and Trans, making the predicate transitive and causative, thereby blocking the unergative use. This is in line with previous findings by Junker (1987), showing that prefixes tend to act as transitivizers in French.

7 Behavior-related verbs beyond French

Behavior-related verbs have been identified in other languages than French or English; see, for example, Wood (2015) on Icelandic denominal *-st* verbs, Holisky (1981) on Georgian. In the Romance family, Oltra-Massuet & Castroviejo (2013) observe that unprefixed Catalan *-ejar* verbs and Spanish *-ear* predicates derived from nominal or adjectival roots associated with typical behavioral patterns form unergative behavior-related predicates, see (92)–(93), from Oltra-Massuet & Castroviejo (2013: 151). Oltra-Massuet & Castroviejo also decompose *-ear* in different units *-e-* and *-ar*, following the analysis of this morpheme in Fábregas & Varela (2006). The semantic similarity with the French verbs at study is rather unsurprising, since just like the French suffixes *-iser/-ifier*, the Catalan and Spanish suffixes *-ejar* and *-ear* derive from vulgar Latin factitive suffix *-ificare/-izare* 'give the property of', related to the Ancient Greek suffix *-idzein*.

(92)   a.   *beneit* 'dumb' < *beneitejar* 'to dumb, fool about'   (Catalan)
        b.   *tafaner* 'snoop' < *tafanejar* 'to snoop'
        c.   *català* 'catalan' < *catalanejar* 'to behave as a typical Catalan'

(93)   a.   *bobo* 'dumb' < *bobear* 'to dumb, fool about'   (Spanish)
        b.   *fisgón* 'snoop' < *fisgonear* 'to snoop'
        c.   *español* 'Spanish' < *españolear* 'to behave as a typical Spanish'

Oltra-Massuet & Castroviejo 2013 note that Catalan *-ejar* and Spanish *-ear* also regularly form causative and anticausative predicates, that do not (necessarily) encode the stereotypical relation (e.g., Catalan *verdejar* 'become green').

We can extend the semantic analysis just proposed for French to these Catalan and Spanish predicates by positing that just like French *-is-/-ifi-*, Catalan *-ej-* and Spanish *-e-* may optionally spell out the verbal head v_{stereo}, without necessarily doing so (given that they form verbs without a stereotypical flavour), and *may* spell out the Cause head, again without necessarily doing so, given that *-ear/-ejar* verbs also regularly have unergative uses.[19]

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[19] Fábregas & Varela's (2006) decomposition is different. They assume that in *-ear*, *-e-* spells out a manner component, while *-a(r)-* instantiates the little v head. If we analyse these verbs like we did for French, *-e-* instantiates v_{stereo}, and *-a(r)* is the infinitival inflection.

Spanish is also reported to form behavior-related verbs with the suffix *-izar* (e.g., *bestializar(se)* '(cause to) get typical properties of beasts') (see Honrubia 2011: 91), but the resulting predicates seem to systematically have a causative semantics, suggesting that Spanish *-iz-* has a stronger tendency to spell out the Cause head than the French suffix *-is-*.

Spanish behavior-related verbs may also be formed without suffixation. However, discussed examples are all prefixed and reflexive. For instance, Honrubia (2011) reports the examples in (94), and the unprefixed zero-derived counterparts *picarar* or *gringar* do not seem to exist in Spanish. This suggests that Spanish does not form unprefixed "zero-suffixed" behavior-related verbs of the French *patienter* 'wait' type.[20]

Another noteworthy difference between Spanish and French is that in Spanish, prefixed behavior-related verbs seem often used with a reflexive (for instance, the transitive form *apicarar* or *agringar* does not seem to exist in Spanish), and are reported to convey an unergative meaning beyond the anticausative one, see again (94). This is in striking contrast with French, where reflexive uses of behavior-related verbs are either anticausative or semantically reflexive, but never unergative.

(94)   a.   *pícaro* 'cheeky' < *apicararse* 'acquire villanous behaviors, to behave like a
             villain'   (Spanish, Honrubia 2011: 88)
        b.   *gringo* 'non-Spanish, foreigner' < *agringarse* 'to acquire the look or behaviors
             of a foreigner, to act like a foreigner'

Italian very much patterns with Spanish. Italian behavior-related unergative verbs can be formed from a nominal root with the suffix *-eggiare*, which suggests that *-eggi-* may spell out the v_{stereo} verbal head just like French *-is-/-ifi-*, Catalan *-ej-* and Spanish *-e-*; see (95).

(95)   a.   *cardinal* 'cardinal' < *cardinaleggiare* 'behave like a cardinal'
                                                    (Italian, Montermini & Todaro 2018)
        b.   *putta* 'whore' < *puttaneggiare* 'behave like a whore'
                                                    (Necker & Tronci 2012: 220)
        c.   *serpente* 'snake' < *serpenteggiare* 'move like a snake'
        d.   *frivolo* 'frivolous' < *frivoleggiare* 'to behave frivolously'
                                                    (Rainer 2016: section 4.3.1)

Like Spanish, Italian does not seem to form zero-suffixed behavior-related verbs of the French *patienter*-type, and favours prefixed reflexive forms, see, for example, the verbs in (96), which have an anticausative and unergative meanings.[21]

(96)   a.   *vipera* 'viper' < *inviperirsi* 'to become angry/to behave like a viper'
                                                    (Italian, Todaro 2017: 161–162)
        b.   *asino* 'donkey' < *inasinirsi* 'to become or behave like a donkey'
                                                    (Iacobini 2004: 177)
        c.   *imberlusconirsi* 'to become like Silvio Berlusconi, imitating his manner and
             behavior'   (Masini & Iacobini 2018: 101)

Another interesting question concerns the availability of behavior-related verbs in Germanic. Unergative zero-derived verbs seem rather productive in German, but much less so in English. For instance, verbs such as German *merkeln* are not uncommon, see

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[20] *Picarear* can be found used unergatively on the Internet, but it is not zero-derived, since it contains the morpheme *-e-* besides the infinitival inflection.
[21] As far as we know, the non-reflexive counterparts of (96) are not reported to exist in Italian.

(97a), but the English (suffixed or zero-derived) counterparts, although not impossible, do not look like good candidates to lexicalization, as also suggested by the parenthetical comments in (97b/c).

(97) a. Merkel merkelt,   Seehofer seehofert.   (Internet)
          Merkel merkel.PRES.3SG, Seehofer seehofer.PRES.3SG
          ≈ 'Merkel is being Merkel, Seehofer is being Seehofer.'

      b. Merkel is Merkelizing (as the Germans say), trying to do as little as possible.

      c. So that means waiting until right before the crisis explodes
          with a fudged fix. Merkel is Merkeling (yes I know it's a verb
          in German now).   (Internet)

We would like to propose that the relative unproductivity of behavior-related verbs in English correlates with the presence of the so-called active *be*, which, in turn, has no counterpart in German (which has no progressive aspect) or across Romance. The active *be* shares the core similative feature of behavior-related unergative verbs: it means something like 'act (like)' (Stump 1985: 77, *apud* Fernald 1999: 55), and built with a noun or an adjective associated with behavioral patterns, it conveys a very close meaning to what is expressed through a behavior-related verb in Romance and German, see, e.g., (98). One way to capture this similarity is to assume that *be* can express v_{stereo}. This, in turn, may render the formation of behavior-related verbs superfluous in English.

(98) a. So when Obama is being Obama he's great but when he's being
          Bush he's terrible.   (Internet)
      b. A waiter in Vancouver who lost his job for being rude and agressive
          with co-workers say he was actually just being "French".   (Internet)

Appendix

Further examples of behavior-related verbs derived from proper nouns:

(99) a. *aristotéliser* 'develop thoughts like Aristotle'
      b. *bovaryser* 'behave like Bovary'
      c. *cicéroniser* 'imitate the language/style of Cicero'
      d. *ronsardiser* 'write like Ronsard'
      e. *stendhaliser* 'write or behave like Stendhal'

Further examples of behavior-related verbs derived from common nouns:

(100) a. *athéiser* 'to practise/teach atheism' < *athée* 'atheist'
      b. *bateler* 'make acrobatics, buffooneries' < *bateleur* 'acrobat, buffoon'
      c. *babouiner* 'to monkey around' < *babouin* 'baboon'
      d. *bouffonner* 'joke around' < *bouffon* 'comical, jester, buffoon'
      e. *canailler* 'behave as a rascal' < *canaille* 'crook, rascal, scallywag'
      f. *diplomatiser* 'behave like a diplomat' < *diplomate* 'diplomat'
      g. *gaminer/gaminiser* 'behave in a youngster way' < *gamin* 'youngster/kid'
      h. *girouetter* 'act like a weathercock, by changing one's opinions or behavior'
          < *girouette* 'weathercock'
      i. *guignoler* 'behave like a Guignol' < *guignol* 'clown' (Guignol is a famous puppet
          from Lyon)
      j. *hussarder* 'behave with courage, rapidity' < *hussar* 'hussar'

k.   *lambiner* 'act with slowness, languidity and nonchalance and lose one's time'
     < *lambin* 'slowpoke'
l.   *lézarder* 'stay lazily in the sun' < *lézard* 'lizard'
m.   *paladiner* 'behave like a paladin' < *paladin* 'wandering knight'
n.   *putasser* 'behave like a prostitute' < *pute* 'whore'
o.   *renarder* 'behave like a fox' < *renard* 'fox'
p.   *robinsonner* 'live alone like Robinson; wander alone' < *robinson* 'person who
     lives alone in nature'
q.   *rossarder* 'move like a rossard' < *rossard* 'nasty guy'
r.   *somnambuler* 'act like a sleepwalker' < *somnambule* 'sleepwalker'
s.   *vagabonder* 'wander, roam' < *vagabond* 'vagrant, tramp, vagabond'

Further examples of behavior-related verbs derived from adjectives:

(101)   a.   *barjoter* 'behave like a simple-minded crazy person' < *barjot* 'crazy/stupid'
        b.   *bêtifier* 'behave like an idiot' < *bête* 'stupid'
        c.   *bougonner* 'mumble in order to express one's bad mood' < *bougon* 'grumpy,
             grouchy'
        d.   *bucoliser* 'have countryside-related activities' < *bucolique* 'bucolic'
        e.   *déconner* 'behave like an idiot' < *con* 'stupid'
        f.   *gâtifier* 'behave in a senile way' < *gâteux* 'senile'
        g.   *mélancoliser* 'devote oneself to melancholy' < *mélancolique* 'melancholic'
        h.   *sentimentaliser* 'behave sentimentally' < *sentimental* 'sentimental'
        i.   *flemmarder* 'behave like a sluggard' < *flemmard* 'sluggard'
        j.   *niaiser* 'behave in a simple-minded way' < *niais* 'simple-minded'
        k.   *patienter* 'wait' < *patient* 'patient'
        l.   *ronchonner* 'express one's bad mood by mumbling more or less distinctly words
             of dissatisfaction' < *ronchon* 'bad-tempered, grouchy'
        m.   *cabotiner* 'behave overdramatically' < *cabotin* 'over-acting, overdramatic'
        n.   *couarder* 'behave like a coward' < *couard* 'coward'
        o.   *crâner* 'show off' < *crâne* 'fierce'
        p.   *fanfaronner* 'behave in a posh/boastful way' < *fanfaron* 'posh, boastful'
        q.   *folâtrer* 'flirt, frolic, fool around' < *folâtre* 'playful, frisky'
        r.   *galantiser* 'behave in a courteous/chilvarous way' < *galant* 'courteous, chilvarous,
             romantic'
        s.   *goguenarder* 'to tell mocking jokes' < *goguenard* 'mocking, jeering'
        t.   *libertiner* 'live in debauchery' < *libertin* 'libertine'
        u.   *mesquiner* 'behave stingily' < *mesquin* 'stingy (person)'
        v.   *pateliner* 'act as a hypocritical person' < *patelin* 'hypocritical, honeyed, fakely
             sweet'
        w.   *pédantiser* 'behave like a pedant' < *pédant* 'pedant'
        x.   *polissonner* 'behave like a naughty child' < *polisson* 'naughty'
        y.   *roublarder* 'behave like a dodger' < *roublard* 'dodger'
        z.   *tatillonner* 'nitpick' < *tatillon* 'finicky, nitpicking'

Further examples of behavior-related verbs with causative and anticausative uses:

(102)   a.   *(s')aristocratiser* '(cause to) get typical properties of aristocrats' < *aristocratique*
             'aristocratic'
        b.   *(se)bestialiser* '(cause to) get typical properties of beasts' < *bestial* 'animal, bestial'
        c.   *(se)crétiniser* '(cause to) get typical properties of dumb people' < *crétin* 'dumb'

   d. *(se)droitiser* '(cause to) get typical properties of right people' < *droit* 'right'
   e. *(se)fasciser* '(cause to) get typical properties of fascist people' < *fasciste* 'fascist'
   f. *(se)gauchiser* '(cause to) get typical properties of left people' < *gauche* 'left'
   g. *(s')infantiliser* 'infantilize' < *enfant* 'child'
   h. *(se)stupidifier* '(cause to) get typical properties of dumb people' < *stupide* 'stupid'

Abbreviations

ACC = accusative, DAT = dative, FEM = feminine, IMP = imperative, INF = infinitive, IMPF = imperfective, MASC = masculine, NEG = negation, PF = perfective, PL = plural, PRES = present, PRO = pronoun, SG = singular, REFL = reflexive, TRZ = transitivizer, VBZ = verbalizer

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The authors have no competing interests to declare.

References

Acquaviva, Paolo. 2009. Roots, categories, and nominal concepts. *Lingue e linguaggio* VIII(1). 25–51.

Alexiadou, Artemis, Elena Anagnostopoulou & Florian Schäfer. 2006. The properties of anticausatives crosslinguistically. In Mara Frascarelli (ed.), *Phases of interpretation*, 187–211. Berlin: Mouton de Gruyter. DOI: https://doi.org/10.1515/9783110197723.4.187

Alexiadou, Artemis, Elena Anagnostopoulou & Florian Schäfer. 2015. *External arguments in transitivity alternations: A layering approach* Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199571949.001.0001

Aronoff, Mark. 1980. Contextuals. *Language* 56. 744–758. DOI: https://doi.org/10.2307/413486

Clark, Eve & Herbert Clark. 1979. When nouns surface as verbs. *Language* 55(4). 767–811. DOI: https://doi.org/10.2307/412745

Dahl, Östen. 1975. On generics. In Edward Keenan (ed.), *Formal semantics of natural language*, 99–112. London & New York: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511897696.009

de Swart, Henriette, Yoad Winter & Joost Zwarts. 2007. Bare nominals and reference to capacities. *Natural Language and Linguistic Theory* 25. 195–222. DOI: https://doi.org/10.1007/s11049-006-9007-4

Fábregas, Antonio & Soledad Varela. 2006. Verb classes with eventive infinitives in Spanish. In *Selected proceedings of the 9th hispanic linguistics symposium*, 24–33. Cascadilla Proceedings Project.

Fernald, Theodore. 1999. Evidential coercion: Using individual-level predicates in stage-level environments. *Studies in the Linguistic Sciences* 25. 43–63. DOI: https://doi.org/10.1111/j.1467-9582.2006.00135.x

Folli, Raffaella & Gillian Ramchand. 2005. Prepositions and results in Italian and English: An analysis from event decomposition. In Henk Verkuyl, Henriette de Swart & Angeliek van Hout (eds.), *Perspectives on aspect*, 81–105. Amsterdam: Springer.

Folli, Raffaella & Heidi Harley. 2006. On the licensing of causatives of directed motion: Waltzing Matilda all over. *Studia Linguistica* 60(2). 121–155. DOI: https://doi.org/10.1007/1-4020-3232-3_5

Hale, Kenneth & Samuel Keyser. 1987. *A view from the middle.* MITWPL.

Holisky, Dee Ann. 1981. *Aspect and Georgian medial verbs.* Academic Resources Corp.

Honrubia, José Luis Cifuentes. 2011. Spanish deadjectival verbs. In José Luis Cifuentes Honrubia & Susana Rodríguez Rosique (eds.), *Spanish word formation and lexical creation*, 65–104. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/ivitra.1.04hon

Horvath, Julia & Tal Siloni. 2011. Causatives across components. *Natural Language & Linguistic Theory* 29(3). 657–704. DOI: https://doi.org/10.1007/s11049-011-9135-3

Iacobini, Claudio. 2004. Parasintesi. In M. Grossmann & F. Rainer (eds.), *La formazione delle parole in Italiano*, 165–188. Tübingen: Niemeyer. DOI: https://doi.org/10.1515/9783110934410.165

Junker, Marie-Odile. 1987. Transitive, intransitive and reflexive uses of adjectival verbs in French. In Jean-Pierre Montreuil (ed.), *Advances in Romance linguistics*, 189–199. Foris Publications.

Kastner, Itamar & Fabienne Martin. 2019. Pieces of meaning in unexpected places: *Wug-ir and wug-er* nonce verbs receive a different default semantics in French. *Poster presented at OASIS 2*, Nantes, October 2019.

Kratzer, Angelika. 1996. Severing the External Argument from its Verb. In Johan Rooryck & Laurie Zaring (eds.), *Phrase structure and the lexicon*. Dordrecht: Kluwer. DOI: https://doi.org/10.1007/978-94-015-8617-7_5

Kratzer, Angelika. 2005. Building resultatives. In Claudia Maienborn & Angelika Wöllstein-Leisten (eds.), *Event arguments in syntax, semantics and discourse*, 177–212. Berlin: de Gruyter.

Krifka, M., F. Pelletier, G. Carlson, A. ter Meulen, G. Chierchia & G. Link. 1995. Introduction. In G. Carlson & G. Pelletier (eds.), *The generic book*, 1–24. Chicago: Chicago University Press.

Labelle, Marie. 1992. Change of state and valency. *Journal of Linguistics* 28. 375–414. DOI: https://doi.org/10.1017/S0022226700015267

Le Bruyn, Bert. 2010. *Indefinite articles and beyond*, 236 (LOT Dissertation Series). Utrecht: LOT.

Lieber, Rochelle. 1998. The suffix-ize in English: Implications for morphology. In *Morphology and its relation to phonology*, Stanford: CSLI Publications.

Lieber, Rochelle. 2004. *Morphology and Lexical Semantics*. Cambridge: Cambridge University Press.

Lohndal, Terje. 2014. *Phrase structure and argument structure: A case study of the syntax-semantics interface.* Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199677115.001.0001

Martin, Fabienne. forthcoming. Aspectual differences between agentive vs. nonagentive uses of causative predicates. In Elitzur Bar-Asher Siegal & Nora Boneh (eds.), *Perspectives on causation,* Springer.

Martin, Fabienne & Christopher Piñón. 2016. Behavior-related unergative verbs. In Nadine Bade, P. Berezovskaya & A. Schöller (eds.), *Proceedings of Sinn und Bedeutung* 20. 480–496. semanticsarchive.net.

Martin, Fabienne, Florian Schäfer & Itamar Kastner. 2019. Competition in grammar: The case of anticausatives. Manuscript, Humboldt-Universität zu Berlin.

Masini, Francesca & Claudio Iacobini. 2018. Schemas and discontinuity in Italian: The view from construction morphology. In Geert Booij (ed.), *The construction of words. Advances in construction morphology*, 81–109. Berlin: Springer. DOI: https://doi.org/10.1007/978-3-319-74394-3_4

Matushansky, Ora. 2008. On the linguistic complexity of proper names. *Linguistics and philosophy* 31(5). 573–627. DOI: https://doi.org/10.1007/s10988-008-9050-1

McCready, Elin & Norry Ogata. 2007. Adjectives, stereotypicality, and comparison. *Natural language semantics* 15(1). 35–63. DOI: https://doi.org/10.1007/s11050-007-9009-8

Menéndez-Benito, P. 2013. On dispositional sentences. In A. Mari, C. Beyssade & F. del Prete (eds.), *Genericity*, Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199691807.003.0010

Montermini, Fabio & Giuseppina Todaro. 2018. Semantico-conceptual networks vs. derivational families. The case of denominal verbs in Italian. *Talk to the 18th International Morphology Meeting*, May 2018, Budapest.

Morzycki, Marcin. 2014. Where does nominal gradability come from? Slides for a talk to UMass University, May 8 2014.

Necker, Heike & Liana Tronci. 2012. Italian *-ismo/-ista* and Ancient Greek *-ismós/-istēs* formations. Morphological processes and diachronic relationships. In Angela Ralli, Geert Booij, Sergio Scalise & Athanasios Kaeasimos (eds.), *Online proceedings of the 8th Mediterranean Morphology Meeting*, 204–222. hdl.handle.net/11707/5391.

Oltra-Massuet, Isabel. 2017. Towards a morphosyntactic analysis of *-ish*. *Word Structure* 10(1). 54–78. DOI: https://doi.org/10.3366/word.2017.0100

Oltra-Massuet, Isabel & Elena Castroviejo. 2013. Approaching results in Catalan and Spanish deadjectival verbs. *Catalan journal of linguistics* 12. 131–154. DOI: https://doi.org/10.5565/rev/catjl.17

Oshima, David. 2009. Between being wise and acting wise: A hidden conditional in some construction with propensity adjectives. *Journal of Linguistics* 45. 363–393. DOI: https://doi.org/10.1017/S0022226709005684

Plag, Ingo. 1999. Morphological Productivity: *Structural Constraints in English Derivation*. Berlin: de Gruyter. DOI: https://doi.org/10.1515/9783110802863

Rainer, Franz. 2016. Italian. In Peter Müller, Ingeborg Ohnheiser, Susan Olsen & Franz Rainer (eds.), *Word formation. An international handbook of the languages of Europe* 4. 2712–2731. Berlin: De Gruyter.

Rappaport Hovav, Malka & Beth Levin. 1998. Building verb meanings. In Miriam Butt & Wilhelm Geuder (eds.), The projection of arguments: *Lexical and compositional factors*, 97–134. Stanford: CSLI Publications.

Roy, Isabelle. 2013. *Non-verbal predication. Copular sentences at the syntaxsemantics interface*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199543540.001.0001

Schäfer, Florian. 2008. *The syntax of (anti-) causatives: External arguments in change-of-state contexts*, 126. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.126

Stump, Gregory. 1985. *The semantic variability of absolute constructions*. Dordrecht: Reidel. DOI: https://doi.org/10.1007/978-94-009-5277-5

Tiersky, Ronald & John Van Oudenaren. 2010. *European foreign policies: Does Europe still matter?* Rowman & Littlefield Publishers.

Todaro, Giuseppina. 2017. *Nomi (e aggettivi) che diventano verbi tramite prefissazione: quel che resta della parasintesi.* Université Toulouse le Mirail-Toulouse II/Università degli studi Roma Tre dissertation.

von Heusinger, Klaus & Johannes Wespel. 2007. Indefinite proper names and quantification over manifestations. In E. Puig-Waldmüller (ed.), *Proceedings of Sinn und Bedeutung* 11. 332–345. Barcelona: Universitat Pompeu Fabra.

von Heusinger, Klaus & Johannes Wespel. 2009. Indefinite Eigennamen in generischen Satzen: Quantifikation uber Manifestationen von Individuen. *Linguistische Berichte* 2009(217). 3–35.

Wood, Jim. 2015. Icelandic morphosyntax and argument structure chap. *More on the syntax of -st verbs*, 251–302. Berlin: Springer. DOI: https://doi.org/10.1007/978-3-319-09138-9_6

Zeller, J. 2001. Prefixes as transitivizers. In N. Dehé & A. Wanner (eds.), *Structural aspects of semantically complex verbs*, 1–34. Berlin: Peter Lang.