Deconstructing the non-episodic readings of Spanish deverbal adjectives*

ABSTRACT

The interpretation of an eventuality embedded in a deverbal adjective is typically non-episodic; specifically it is dispositional, habitual or modal. This article examines these readings based on a case study of three productive adjectivalizing suffixes in Spanish. It is proposed that the same structure can underlie these three non-episodic readings: Which is selected in each case is a function of different pieces of linguistic information, including the causal link between subject and eventuality, and the status of external circumstances relevant for the situation. This approach suggests an underspecification view of polysemy, makes it possible to account for the range of non-episodic readings without using designated null aspectual operators, and provides a natural explanation of the asymmetries between these readings with respect to A-to-N conversion and combination with animate nouns.

1. Non-episodic readings with deverbal adjectives

When adjectives are morphologically derived from (eventive) ¹ verbs, the most productive readings are non-episodic, that is, they do not entail actual participation in a specific event at a particular occasion. The following deverbal adjectives illustrate the basic range of non-episodic readings:

- (1) a. a washable skirt
 - b. a forgetful scholar
 - c. a slippery road

What all these cases have in common is that the adjective does not entail or presuppose that its subject of predication has participated in a specific instantiation of the event that the verbal base normally denotes. A skirt that is washable does not need to have been ever washed: We just say that it is in principle possible to wash it. A forgetful scholar is not a scholar that has forgotten something in a particular occasion: for the predication to be truthful, forgetting things often must be a characteristic of her. Finally, a slippery road does not need to be a road that has ever caused someone to slip: It is enough if the properties of the road define a disposition to that kind of event. These three non-episodic cases illustrate the three main non-episodic readings: Modal (1a), habitual (1b) and dispositional (1c).

This article considers three sets of questions. The first set is, how are these readings differentiated by speakers, and what factors does grammar use in order to associate a dispositional, habitual or modal meaning with a deverbal adjective? Do these meanings have to be set apart by different semantic primitives ([habitual], [dispositional]...), or can they be deduced from other factors?

The second set stems from the fact that some affixes allow for several non-episodic readings, so one and the same affix in Spanish, -dizo, can give rise to habitual and dispositional readings from what seems to be the same class of verbs:

(2) a. hui-dizo

flee-dizo

'elusive' ('that frequently flees', habitual)

b. quebra-dizo

break-dizo

'fragile' ('that can get broken easily', dispositional)

How is this polysemy accounted for? An account in terms of two homophonous affixes will find the problem that *-dizo* is not the only deverbal affix that shows this behavior (see section §3 below). Any account that tries to find differences in the kinds of verbs underlying each one of the two interpretations will find a problem in the fact that, with some bases, both the dispositional and the habitual interpretation are available with one and the same affix (see, for instance, section §3.1. below).

Finally, there is a wider question: What goes on in grammar when a verb becomes an adjective? Both adjectives and verbs are prototypical predicates, but adjectives are generally analyzed as defective versions of verbs. Actually, it has been claimed that some languages lack adjectives and use stative verbs instead (consider, for example, Dixon 1982, but see Baker 2003: §4.6 for a discussion). The question, then, is what happens when a verb is morphosyntactically turned into an adjective. One immediate effect of this operation is that the availability of episodic readings becomes radically reduced. This might be an effect of the impossibility of projecting the aspectual and temporal functional layers above V once V becomes the base of a morphological word, as Van Hout & Roeper (1998) suggest. However, the question of how the non-episodic readings are distinguished from the perspective of the adjective still remains.

The article is structured as follows: In section §2 I take a deeper look into the semantic characterization of non-episodic readings. Section §3 presents the range of suffixes under study here, and shows a set of properties that differentiate their dispositional, modal and habitual uses. Section §4 presents an analysis of what decides the various non-episodic readings, and section §5 explores how to account for polysemy. Finally, section §6 presents the theoretical implications of this paper for the wider research questions considered here.

2. The range of non-episodic readings

This section describes the non-episodic readings considered in this article. The classification used builds over Rainer's (1999) original typology for deverbal adjectives in Spanish.

2.1. Dispositionality

Consider the following deverbal adjectives in Spanish:

- (3) With -diz(o)
 - a. un terreno move-dizo
 - a ground move-dizo
 - 'an unsteady ground'
 - b. un suelo resbala-dizo
 - a floor slip-dizo
 - 'a slippery floor'
 - c. un objeto quebra-dizo
 - an object break-dizo
 - 'a fragile object'
 - d. un techo llovedizo
 - a roof rain-dizo
 - 'a roof that lets water pass through it'
- (4) With -nte
 - a. una sustancia relaja-nte
 - a substance relax-nte
 - 'a relaxing substance'
 - b. un objeto corta-nte
 - an object cut-nte

'a cutting object'

c. un pan crujie-nte

a bread crunch-nte

'crunchy bread'

These adjectives are built over an eventive verb and compositionally keep the meaning of its base. However, they do not express an event, but a propensity or disposition towards participating in that event. In a phrase like (3b), what we say is that a particular floor, by virtue of its current state and properties, has a tendency to participate in a slipping event. Crucially, this does not imply that the floor has taken part in the past, or will take part in the future, in such event: Nobody may ever slip over that floor, and still (3b) would be truthful. We can talk in a lab about a newly invented substance that we reasonably expect to have relaxing properties by virtue of its chemical composition. In this context, (4a) is valid, even if nobody has ever tried it and, thus, the substance has not participated in any actual relaxing event. Similarly, (4b) can be said of an object that has never cut anything, just because we see it is sharp enough to do it, and we can also say that some bread is crunchy just because of the way in which it came from the oven (4c), even if nobody has ever made it crunch. There are many other cases with these and other affixes in which a deverbal adjective does not denote participation in an event, even if it is built over an eventive verb. The relevant semantic notion involved in these cases is dispositionality, defined as follows (cf. Manley 2012: 321):

Necessarily x is disposed to P in w if x would P in w

That is, dispositionality entails that, given the right facilitating conditions in the world (w) of discourse, an entity (x) would act as a participant in situation P (described by the predicate). In an example like the one of the cutting object above, (4b) says that,

necessarily, the knife would cut if the right conditions are found (for example, some other object gets in contact with its blade and some pressure is exerted, etc.). If the object would not cut given a context, then (4b) would not correctly describe that object. Dispositionality necessarily implies an assessment on the part of the speaker of the expected behavior of an entity, and this assessment makes a judgment on the basis of its particular properties or its particular state. We say that a floor is slippery, for instance, in at least two situations: When it is made of a particular substance that we know makes slipping easy, and when it is in a particular state that also facilitates that event (for example, it is wet). Dispositions, then, can be INDIVIDUAL-LEVEL (that is, characteristic of an entity) or STAGE-LEVEL (that is, dependent on its particular state at some spatio-temporal slice).

2.2. Habituality

Consider the examples in (5), all derived by the suffix $-\acute{o}n$.

- (5) a. un chico abus-ón
 - a boy abuse-ón
 - 'a boy that is a bully'
 - b. un hombre mir-ón

watch-ón

'a man that is a voyeur'

- c. una chica destroz-ón-a
 - a girl destroy-ón-F
 - 'a girl that frequently destroys things'
- d. una mujer dorm-il-ón-a
 - a woman sleep-INF-<u>ón</u>-F
 - 'a woman that is fond of sleeping'

e. un hombre com-il-ón

a man eat-INF-ón

'a man that is a glutton'

It is clear by the meaning of these deverbal adjectives that a dispositional paraphrase will not be enough. Take, for instance, (5c) 'a girl that often destroys things'. This nominal expression is a good description if and only if in the past that girl has destroyed things (for example, has ruined a number of electronic machines by using them in the wrong way). If we are in a situation where she has never broken a machine but we just expect that, by virtue of her properties (for example, her reduced knowledge of electronics), given the right circumstances (for example, if we let her manipulate the new tablet unsupervised), she would ruin it, the girl would complain. Similarly, if a boy has never bullied someone but has the typical properties that, in principle, qualify for a bully, describing him as *abusón* 'bully' would simply not be the correct description. These adjectives, in fact, entail a habitual participation in the event expressed by the verbal base: We cannot say that X is *abusón* unless in our current world and time X participates frequently in specific events of bullying someone. The semantic notion involved here is habituality, which we can define as follows:

Regularly, x participates in P.

It is important to separate habituality from iterativity, which is an instance of an episodic reading. With Carlson (2011), I assume that the truth conditions for a habitual depend on the statement of the regularity of occurrence of the event, and not on any specific event taking place at a particular time and place. If we say *John smokes*, we do not imply that in a particular point in time John will be smoking a cigarette, that is, this cannot be denied by the fact that John did not smoke a single

cigarette during a trip; we state that his characteristics are such that he is a (habitual) smoker. Note that this contrasts sharply with *John smoked five cigarettes yesterday*, which is iterative: We locate a series of events in a specific time/world pair. In this sense, habituals are non-episodic. By contrast, iteratives are episodic in nature, and they behave as episodic sentences, even if they also involve repetition (in an intuitive, non technical sense). The suffix *-dizo* (cf. 3) can also produce habitual readings:

- (6) a. un niño olvida-dizo
 - a child forget-dizo
 - 'a forgetful child'
 - b. un cura enamora-dizo
 - a priest fall.in.love-dizo
 - 'a priest that falls in love easily'
 - c. un payaso enoja-dizo
 - a clown anger-dizo
 - 'a clown that gets angry frequently'

Consider (6a) in a scenario where our young cousin has repeatedly forgotten to do his homework, compared with a second scenario where he has never forgotten to do his homework and still, by virtue of his properties (his mental faculties, the fact that he would rather watch TV), we expect that he would forget to do his homework given the right circumstances (for example, there is a good program for children on TV). Example (6a) would be a fair description of the child in the first scenario, but pretty unfair in the second.

Adjectives in *-nte* can also produce habitual readings. In those cases, as in (6), it is not enough to say that the entity is predisposed to participating in that event: Participation must have occurred habitually in the past.

(7) a. un hombre agobia-nte

a man stress-<u>nte</u>

'a stressing man'

b. una mujer inquieta-nte

a woman trouble-nte

'a worrying woman'

2.3. Modals

The final non-episodic class is modal in nature. Rainer (1999: 4600-1, 4607-9) identifies the groups of potential (7a) and deontic (7b) adjectives.

(8) a. una mesa transporta-ble

a table transport-ble

'a transportable table'

b. un certificado paga-dero

a certificate pay-dero

'a payable certificate'

The potential class are those adjectives which, intuitively, require a paraphrase along the lines of 'that can X' or 'that can be X-ed'; the deontic class are those that express that, under normal circumstances, the entity must, by some rule or law, 'be X-ed' (8b: 'something that must be payed').

These two classes are modal in nature and, like our dispositionals and habituals, non-episodic. In fact, they are close to our dispositionals as they do not entail actual past, present or future participation, in an event. Example (8a) is a truthful description in a situation where the table has never been moved, or perhaps will never be (for example, the table has just been assembled in the shop, but will go accidentally on fire the following day). The possibility to be moved is enough.

Example (8b) is equally truthful if nobody has paid the invoice and nobody will: The obligation to pay for it on the grounds of external law is enough.

The point at issue is in what sense these two readings differ from our dispositionals. Let us start with the deontic class, where the difference is easier to show. The minimal necessary distinction here is that, in the dispositional reading, the hypothetical participation in an event is due to the particular properties of the entity, without necessary intervention of an external set of conditions. That is, if something is *quebradizo* 'break-dizo', it is so because of its internal composition, the substance it is made of, its molecular structure, etc. However, if an invoice is *pagadero* 'payable', it is not so because its internal properties make it such that its natural state will tend towards payment, but because of a set of external circumstances (in this case, laws and regulations) that dictate it. There is, then, no necessary causal link between the properties of the invoice and its possible participation in a paying event. Note that the causal link is implicit in our definition of dispositionality, repeated here:

Necessarily x is disposed to P in w if x would P in w.

The causal connection required for dispositionality is evident when we consider counterfactuals, strongly tied to causality (particularly in some theories, like Lewis 1973). We say that someone is disposed to P if, given a set of facilitating circumstances, he would P in that context. Then, counterfactually:

If we were not disposed to P in w, he would not P in w.

Deontic deverbal adjectives do not involve a causal connection between the internal properties of the entity and the possible participation in an event, and thus there is no counterfactuality relation: An invoice is payable (for example, 'must be paid'), even if in a facilitating context (where there is the obligation and the money to pay), it is paid. That said, it is worth noting that in contemporary Spanish the deontic reading of

adjectives is not productive. Rainer (1999: 4607) documents only some formations with *-ble* (for example, *abominable* 'detestable', from the unusual verb *abominar* 'abhor'), *-dero* (replaced by *-ble* in the 16th century, cf. Clavería 2004) and a few exceptional suffixes which are not clearly adjectival (for example, *-dio* in *rega-dio* 'water-<u>dío</u>', 'field that must be watered', or *-ndo* in *execra-ndo* 'loathe-<u>ndo</u>', 'something that must be loathed').

Consider now potentials, where the difference with dispositionals is perhaps more subtle. The crucial thing about potentials *vs.* dispositionals is that the former allow participation in an event but, crucially, are not inherently predisposed towards it because there is no necessary causal link between the entity's internal properties and such an event. Granted, there are some internal properties that a table has to have in order to be moved (an upper limit to how heavy it can be, at least), but crucially these internal properties do not by themselves force participation in the event given the right situation: they just make it possible. More technically, there is no real causality between internal properties and event participation. For this reason, the counterfactual does not hold of potentials either: A table can be moved even if, in a facilitating contex,t it would not, simply because one chooses not to transport it (even if it can be moved). In slightly more abstract terms, in a potential adjective, the entity has the necessary properties that allow it to participate in an event whereas, in a dispositional adjective, those properties are sufficient to guarantee participation in that event.

Note that -dizo can also trigger potential readings. RAE & ASALE (2009: §7.11b) explain that some adjectives in -dizo have a potential meaning. These readings are quite restricted, definitely not productive in contemporary Spanish and frequently displayed only in semi-lexicalised N + A combinations (for example, arma

arroja-diza 'throwable weapon', puente leva-dizo 'raisable bridge, drawbridge', terreno rega-dizo 'soil that can be watered or irrigated'), but they exist nonetheless:

(9) a. arroja-dizo

throw-dizo

'throwable'

b. leva-dizo

raise-dizo

'raisable'

c. rega-dizo

water-dizo

'that can be watered'

The main goal in this article is to identify the factors that grammar uses to differentiate between these non-episodic readings. But first let us take a closer look to the affixes under study here and to the properties of the words formed with such affixes in each one of the classes.

3. The affixes, the words and their properties

In this section I will look deeper into the adjectival affixes under study here (-dizo, -nte and -ón). The choice of these adjectives is motivated by three criteria: i) their productivity; ii) their empirical relevance for the problem of how to select one of the non-episodic readings; and iii) their nature as understudied affixes in current research. Unlike denominal adjectival suffixes, the number of productive suffixes that turn verbs into adjectives in Spanish is not high. Next to past participles (-do and allomorphs), the suffixes -ble ('-able') and -nte ('-ant') are perhaps the most productive ones. The suffix -dizo is also relatively productive with verbs, as is the suffix -ón. Beyond these cases, there are a number of unproductive suffixes (10a),

suffixes that are productive in other domains but not as deverbal adjectivisers (10b), and suffixes with a meaning contribution that is irrelevant for our purposes (for example, because they produce relational adjectives that do not necessarily define direct participants in the event, as causers, patients or recipients, 10c).

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(10) a. -bundo

medita-bundo

think-bundo

'pensive'

b. -oso

cuid-oso

look.after-oso

'careful'

c. -tivo

colabora-tivo

colaborate-tivo

'in some way related to a collaboration'
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These three affixes arguably are the most productive deverbal adjectivisers specialised in readings that make direct reference to an argument of the base verb. I have left *-ble* out for reasons of space, because it is widely studied in other works (see Oltra-Massuel 2014 for an overview), and because focus on these three, less studied, suffixes could contribute better to the field.²

The data sources used are the dictionary of the Spanish Royal Academy and, as regards their combination with nouns, the *Corpus del Español* and *CREA*. Additional data come from newspapers and other 'controlled' texts accessed through Google, if the query items were not attested in the above sources.

It will become clear from the examination of the data that two empirical generalisations can be made:

Habitual adjectives convert into nouns.

Adjectives in a habitual reading combine with animate nouns.

3.1. -dizo

The affix -diz(o) productively combines with the present stem of verbs. It is tempting to relate it to the suffix -iz(o), which, in combination with adjectives, expresses an approximative degree ('tending towards the property expressed by A', 11a). With nouns, it produces adjectives expressing similarity with some of the properties of the noun ('sharing some similarity with the entity denoted by N', 11b).

(11) a. roj-izo

red-izo

'reddish, tending towards red'

b. paj-izo

straw-izo

'like straw, of the color of straw'

Even though the dispositional meaning characteristic of -dizo could be related to this general notion of 'tendency towards something', it is not straightforward to analyse this suffix as a combination of the participial marker -d- ('-ed') and -iz(o). The reason is that in 2^{nd} conjugation verbs, participles show apophony of the theme vowel -e- (12a), while adjectives derived by -dizo from 2^{nd} conjugation verbs do not show apophony, and keep the theme vowel as in the present stem (12b, 12c).

(12) a. mov-i-do

move-THV-ed

'moved'

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b. mov-e-dizo
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mov-THV-dizo

c. mov-e-mos

move-THV-1PL

'we move'

This affix produces dispositional (13a) and habitual (13b) adjectives, and less productively, potentials (13c).

(13) a. una sustancia quebradiza

a substance break-dizo

'a substance whose properties make it prone to breaking'

b. un hombre enamoradizo

a man fall.in.love-dizo

c. un precinto quebradizo

a seal break-dizo

'a seal that can be broken'

Note that the same deverbal adjective can have two meanings with this affix: (13a) is dispositional, but a dispositional reading of (13c) would describe the absurd situation where the seal (which is supposed to keep something closed) is made of a substance that tends to break. Example (17c) naturally receives a potential reading: A seal that can be broken, not one whose properties make it prone to breaking.

The choice of non-episodic readings with -dizo is, however, not completely random. Two properties associated with the different readings can be identified. The first is that the habitual reading emerges if the noun the adjective combines with is animate. In fact, in the list of habitual -dizo forms, most are psychological verbs, and the subject is the experiencer that holds the psychological state: enamoradizo 'who

often falls in love', from *enamorar*(*se*) 'to fall in love', *enfadadizo* 'who often gets angry', from *enfadar*(*se*) 'to get angry', *olvidadizo* 'forgetful', from *olvidar* 'to forget', etc. However, the animacy of the noun modified by the adjective is not simply due to the verb's nature as a psychological predicate, which would make it restricted to taking animate nouns as experiencer arguments. Consider (14):

- (14) a. un soldado alquiladizo
 - a soldier rent-dizo
 - 'a soldier whose services are rented'
 - b. *un piso alquiladizo
 - a flat rent-dizo

(intended as) 'a flat that is rented, that has been frequently rented'

'Renting' is not a psychological event which must be experienced necessarily by a sentient being: Humans can rent their services and objects can be rented. The verb, unlike what we could expect *a priori* with a psychological verb, is not conceptually restricted to animates. In the context of a *-dizo* habitual form, it can only take human subjects: A soldier, but not a flat, can be *alquiladizo*.³ In contrast, dispositionals typically prefer non-animate subjects. For instance, in Mark Davies's *Corpus del español*, these are the nouns that appear combined with the adjective *quebradizo* 'break-dizo'.

vanidad 'vanity'; trasposiciones 'transpositions'; tierra 'earth, soil'; silencio 'silence'; ramas 'branches'; presentimiento 'presentiment'; precinto 'seal'; objeto 'object'; moral 'moral'; materiales 'materials'; líneas 'lines'; ídolos 'idols'; fractura 'fracture'; conchas 'shells'; ánimos 'courage'

Again, it cannot be claimed that this is because somehow humans are not breakable.

With *quebrar* we find cases where the broken entity is animate. This might be a

metaphorical extension, but the interpretation is still compositional: An entity, by breaking, loses its unity or functionality.

(20) Alberto nunca fue quebrado.

Alberto never was broken

'Alberto was never broken'

Still, quebradizo cannot take human subjects:

(21) *un prisionero quebradizo

a prisoner break-dizo

Potential readings also reject animate subjects:

(22) a. un puente lev-a-dizo

a bridge raise-THV-dizo

'a drawbridge'

b. *un soldado levadizo

a soldier raise-THV-dizo

(intended as) 'a soldier that can be recruited' (cf. *levar soldados*, 'to recruit soldiers')

This suggests a generalisation with respect to the habitual reading: Habitual interpretations are available if the noun modified is animate. Otherwise the non-episodic reading has to be dispositional or modal.

There is a second generalisation to be made about the habitual readings with - dizo: Habitual adjectives with this affix allow noun conversion. As it is well-known, conversion is category-change without any overt morphological marking. This process is widely attested in many languages, and its analysis is famously controversial (see Bauer & Valera 2005 for an overview). In Spanish, perhaps the clearest and most productive case of conversion is adjective-to-noun:⁴

(23) inútil > un inútil

useless a useless person

Habitual adjectives in *-dizo* systematically allow adjective-to-noun conversion, and, in doing so, keep their compositional meaning with respect to the adjectival version. I include documentation for the less used forms.

un olvida-dizo 'a forget-DIZO'; un enamora-dizo 'a fall.in.love-DIZO'; un enoja-dizo 'a anger-DIZO'⁵; un enfada-dizo 'an anger-DIZO'⁶; un alquila-dizo 'a rent-DIZO, someone who rents his services'; un espanta-dizo 'a frighten-DIZO'⁷; un contenta-dizo 'a satisfy-DIZO'⁸; un muda-dizo 'a change-DIZO'⁹; un hui-dizo 'a flee-DIZO'

In contrast, the dispositionals and potentials with *-dizo* do not allow A-to-N conversion. The fact that potential adjectives also reject conversion is particularly surprising in some cases, because, as we saw, in those the adjective is almost entirely restricted to a frequent N + A collocation, a combination where one could expect that the conversion would inequivocally take on the meaning of that N.

*un rebala-dizo 'a slip-DIZO'; *un quebra-dizo 'a break-DIZO'; *un desliza-dizo 'a slide-DIZO'; *un move-dizo 'a move-DIZO'; *un roba-dizo 'a steal-DIZO'; *un desmorona-DIZO 'a crumble-DIZO'; *un leva-dizo 'a raise-DIZO'; *un leva-dizo 'a raise-DIZO'; *un arroja-dizo 'a throw-DIZO'; *un rega-dizo 'a water-DIZO'; *un corre-dizo 'a run-DIZO' (Intended: an object that can slide)

3.2. -ón

When the suffix -ón produces adjectives from verbs, it always selects the habitual reading.

busc-ón 'search-ON, that is frequently looking for something', abus-ón 'bully', critic-ón 'criticise-ON, that frequently criticises', respond-ón 'reply-ON', sob-ón 'fondle-ON', trag-ón 'swallow-ON', fisg-ón 'spy-ON', grit-ón 'shout-ON', zumb-ón 'buzz-ON', lig-ón 'flirt-ON', gruñ-ón 'grumble-ON', bail-ón 'dance-ON', llor-ón 'cry-ON', adul-ón 'flatter-ON', machac-ón 'crush-ON'...

There is possibly a distinct suffix $-\delta n$ that combines with nouns and produces either augmentative nouns (27a) or possessive adjectives (generally, in combination with body-part nouns). The typical meaning in the latter cases is 'that is characterized by a body part that is extremely big' (27b), but we can also find examples where the meaning is 'extremely small or rare' (27c). This distinct affix, or possibly, this distinct use of the affix does not produce deverbal adjectives, so it is left outside the boundaries of this article.¹⁰

(27) a. problem-ón

problem-ón

'big problem'

b. una mujer cabez-on-a

a woman head-ón -F

'a woman that has a big head'

c. un niño pel-ón

a child hair-ón

'a child with very little hair'

If -ón only produces habitual readings of deverbal adjectives, and given the results in the case of -dizo, then we expect it to produce adjectives that must combine with animate nouns. This result is confirmed. Consider for instance the verbs abusar

'abuse', *destrozar* 'destroy', *chupar* 'suck' and *tragar* 'swallow'. These four verbs readily take non-animate subjects (examples taken from *Corpus del español*):

(28) a. La coreografía [...] abusó del uso de la danza sobre puntas.

the choreography overdid the use of the dance on points

'The choreography overdid the use of dancing sur les pointes'

b. El viento les destrozó la casa.

the wind them destroyed the house

'The wind destroyed their house'

c. El Caañabé [...] es un agua de barro que chupa y traga todo.

the Caañabé [...] is a water of mud that sucks and swallows everything '[River] Caañabé is a flow of muddy water that sucks and swallows everything'

The corresponding adjectives, always habitual, reject these inanimate subjects:¹¹

(29) a. *una coreografía abusona (de la danza)

a choreography abuse-<u>ón</u> of the dance

(intended as) 'a choreography that overdoes dancing'

b. *un viento destrozón

a wind destroy-ón

Intended: 'a wind that destroys many things'

c. *un río chupón y tragón

a river suck-ón and swallow-ón

(intended as) 'a river that sucks and swallows many things'

Habitual adjectives in the case of -dizo systematically allowed adjective-to-noun conversion. We expect all adjectives in -ón to follow the same pattern, which is confirmed.

(30) un abus-ón 'an abuse-ÓN'; un adul-ón 'an flatter-ÓN'; un burl-ón 'a mock-ÓN'; un busc-ón 'a search-ÓN'; un comil-ón 'an eat-ÓN'; un critic-ón 'a criticise-ÓN'; un destroz-ón 'a destroy-ÓN'; un mir-ón 'a watch-ÓN'; un dormil-ón 'a sleep-ÓN'; un sob-ón 'a flinger-ÓN'; un mam-ón 'a suckle-ÓN'; un peg-ón 'a hit-ÓN'; un besuc-ón 'a kiss-ÓN'; un refunfuñ-ón 'un grumble-ÓN'; un regañ-ón 'a reprehend-ÓN'; un pid-ón 'a demand-ÓN'; un chup-ón 'a suck-ÓN'; un pregunt-ón 'an ask-ÓN'...

3.3. -nte

The suffix -nte is generally characterized as an agentive affix in Spanish, following its etymological origin (Pharies 2002: 84). It productively combines with verbs of all conjugation classes, producing, as noted before, habitual and dispositional adjectives. Again, the association between animacy and the habitual reading is evident with this affix: The same deverbal adjective with an animate subject has a habitual reading (31a), and a dispositional one emerges with non-animates (31b). The contrast was originally noted in Rifón (1996); see also Cano Cambronero (2013).

- (31) a. un empresario contamina-nte
 - a businessman pollute-nte
 - 'a businessman that has repeatedly polluted something'
 - b. un producto contamina-nte
 - a product pollute-nte
 - 'a product that has polluting properties'

Against Rifón (1996), *contaminante* 'polluting' does not force a dispositional reading: Example (31a) is used to describe not a person whose properties (his chemical composition) would be polluting, but someone who actually has participated, directly or indirectly, in a series of actual polluting events. But in order to obtain the habitual reading, it is crucial that the subject be animate; in contrast, (27b) is clearly dispositional, and the product does not need to have polluted anything ever. Many other adjectives follow this pattern: *un hombre agobiante* 'a man stress-nte, an overwhelming man' must be someone that has habitually stressed others, but *un trabajo agobiante* 'a job stress-nte' does not need to be a job that has already stressed someone. Other adjectives of the same class include *estresante* 'stressing', *cargante* 'annoying', *mareante* 'sickening', or *dominante* 'oppressive'.

In other cases, the adjective is already fixed in one of the non-episodic readings, and the class of nouns modified is selected accordingly. The adjective in (32) is dispositional ('whose properties make people worried easily'), so it cannot modify human nouns.

- (32) a. una noticia preocupante¹²
 - a news worry-nte
 - b. *un político preocupante
 - a politician worry-nte

Similar effects are found in other *-nte* adjectives that are compulsorily dispositional: among many others, *tranquilizante* 'soothing', *aislante* 'isolating', *subyacente* 'underlying', *secante* 'drying', *purgante* 'purgative' or *endulzante* 'sweetening'. As verbs, they readily take animate subjects.

The situation with respect to conversion is not as clear as with the previous two affixes. Even though there are no habitual adjectives in *-nte* to disallow adjective-to-noun conversion (*un agobiante*, *un mareante*, *un cargante*, etc.), some of the dispositional adjectives with *-nte* '-nt' are also attested as nouns (33).

(33) a. un calma-nte

a soothe-nte

'a tranquiliser'

b. un desodora-nte

a deodora-nte

'a deodorant'

I believe that, rather than denying the generalization proposed above ('Habitual adjectives convert to nouns, but dispositionals do not'), what happens here is that —nte is a very different kind of affix: One that, rather than producing adjectives, has the capacity to produce both nouns and adjectives independently of the semantic type of the word. This proposal is supported by other aspects of its behaviour. The most significant of them, as far as adjective-to-noun conversion is concerned, is the following: Despite being productive with adjectives, —nte can in some cases produce nouns which do not have in their use a clear adjectival use. The following words with —nte are accepted as nouns, used exclusively as nouns in texts and speakers tend to reject their adjectival use (34). No word in —dizo shows the same behaviour. ¹³

(34) a. un ataca-nte \sim *un hombre ataca-nte

a attack-<u>nte</u> a man attack-<u>nte</u>

'an attacker'

b. un solicita-nte ~ *un alumno solicita-nte

a request-nte a student request-nte

'an applicant'

c. un preside-nte ~ *una institución preside-nte

a preside-nte an institution preside-nte

'a president'

Such words are particularly frequent in legal and political speech (cf. Cano Cambronero 2013). ¹⁴While I am not in a position to offer a complete analysis of *-nte* as an affix, note that its behavior is still compatible with the conditional generalizations in (35) (even if, depending on the analysis of the suffix, it might not support the bi-conditional 'A non-episodic adjective allows adjective-to-noun conversion if, and only if, it is habitual').

From the above, the following generalizations about non-episodic deverbal adjectives can be made:

When the adjective combines with an animate noun, it can be interpreted as habitual.

If the adjective is habitual, it allows adjective-to-noun conversion.

The next section puts forward an explanation for these two correlations.

4. Deriving the readings from independent semantic factors

In the discussion about the main readings (§2), three factors appeared repeatedly: i) the properties of the noun that combines with the adjective; ii) the link between these properties and the eventuality expressed by the base verb; and iii) the facilitating circumstances. Take the following example:

(36) Compramos un reloj quebradizo.

we.bought a clockbreak-dizo

'We bought a fragile clock'

The set of relevant properties are those of the noun *reloj* 'clock': non animacy, absence of capacity to hold mental states, or a set of functions, or material constituency, etc. These properties are relevant in some way to the eventuality denoted by the base of the adjective *quebradizo*, which is the event described by *quebrar* 'to break'. There must be some link between these properties and that

adjective-internal eventuality. ¹⁵ Finally, there would be a set of facilitating circumstances where the clock would, indeed, break: for example, violent contact with another entity. This paper's contention is that these three factors are enough to disentangle between the four readings.

4.1. Weak causation is what defines habitual readings

In this section I will argue that the link between the noun's properties and the eventuality denoted by the base verb is crucial to tell the habitual reading from the rest. Specifically, I will propose this generalisation: Habitual readings are triggered when the properties of the modified noun include the capacity to have mental states, and the link between these properties and the adjective's eventuality is of weak causation.

Consider first the role of the noun's properties in defining a reading as habitual. We have already seen that habitual readings are linked to cases where the modified noun is animate. The crucial property of animates is that any animate entity can have mental states, and this is the first crucial ingredient for habituality. A grammatical relation holds between animate subjects and habituality (as opposed to dispositionality) in a wide variety of contexts. Take, as an illustration, English middle constructions, which imply dispositionality and not habituality (Ackema & Schoorlemmer 1995, Lekakou 2005, Klingvall 2007, among many others).

- (37) a. This book reads well.
 - b. This window breaks easily.
 - c. This safe opens with difficulty.
 - d. This car drives with ease.

In all these examples the subject is non animate and the predicate is interpreted as a dispositional: By virtue of the subject's properties, if the right external conditions are

in place, the subject will participate in an eventuality of a certain kind. The middle reading is impossible, if the subject is interpreted as the entity that has the power to initiate the eventuality. In the following examples, a middle reading is blocked and habitual interpretations emerge:

- (38) a. John reads well.
 - b. The karate expert breaks [something] easily.
 - c. Houdini opens [something] with difficulty.
 - d. Sena drives with ease.

Let us consider next the link between the properties of the noun and the properties of the eventuality embedded under the derived adjective. The habitual interpretation is triggered whenever the noun, by virtue of its properties, can be interpreted as the (internal or external) causer of the eventuality, that is, the entity that initiates it, be it volitional or not. Animates combine with habitual readings because, having access to mental states, they can act more easily as causers of an eventuality. As causers, their properties can trigger (often, if necessary) that situation, making the facilitating circumstances secondary. Animate entities have inherent causation properties (they can initiate processes by themselves), and they can even control how an event makes progress (fast, slow, in an orderly or disorderly fashion, etc.), but non-animate entities cannot (Alexiadou & Schäfer 2006). The deep connection between animates and habituals (which in a sense are more 'verby' than dispositionals, because they presuppose that the event has actually taken place) can be understood from this perspective.

It is important to note that, when use of the notion of 'weak causation' does not imply 'volitionality' here. In a case like *huidizo* 'flee-<u>dizo</u>, that often escapes' it is very clear that the animate subject decides, at will, to escape, but other cases show

that volitionality is not a necessary part of the description of the habitual class. It is clear from the entailments of many of the habitual adjectives discussed here that volitional control by the modified noun is not necessary, actually it is sometimes impossible. For verbs that produce habitual adjectives in *-dizo*, like *olvidar* 'forget', *asustar* 'frighten' or *enfadar* 'anger', the traditional accounts would consider the subject of the predication of these adjectives to be semantic experiencers (for example, Belletti & Rizzi 1988). Still, in what way can we say that the experiencer acts as a 'causer' of the eventuality in these cases?

The following generalization appears to be more adequate: The noun acts as a weak causer whenever the event can be started by the entity denoted by the noun, without the intervention of other external participants. Intuitively, the subject can be construed as the only entity responsible for the event getting initiated, even if that entity is not responsible for the way in which the situation makes progress, or even does not play a role in whether the eventuality will make progress or will be sustained. This implies deconstructing what the initiator of an event is, as in Van Valin (1990) or Dowty (1991), among others: Prototypical initiators ('agents') involve volitionality, but there is a second interpretation, more crucial for the definition of an initiator: Weak causation of the event. By weak causation it is here meant that the fact that the event is initiated is attributed to the subject, and not to other participants.

With most verbs producing habitual readings, this is straightforward: *abusar* 'abuse', *criticar* 'criticise', *huir* 'flee', *tragar* 'swallow', *silbar* 'whistle', *agobiar* 'stress', *contaminar* 'contaminate', etc. A review of the verbs in (39) shows how their experiencers also act as weak causers of the event. The person that forgets their children at school does not decide when or whether he would forget to collect them.

Only the person forgetting the children can be blamed for that: They do not trigger the event of forgetting and no external participants can be blamed either. Similarly, the statement *Juan is frightened of spiders* tells more about Juan's mental states than about spiders: The spiders cannot be blamed if Juan is afraid of them, only Juan can be held responsible of his fear.

In fact, this has grammatical consequences. Evidence that there is a weak causal link between the subject and the initiation of the event can be seen in that a number of verbs that produce deverbal adjectives with a habitual reading cannot be built with an external causer projected as a subject (40):¹⁶

(40) a. *La prisa olvidó a Pedro las llaves.

the haste forgot ACC Pedro the keys

(intended as) 'The haste made Pedro forget the keys'

b. *Juan bailó a María.

Juan danced ACC María

(intended as) 'Juan made María dance'

c. *Juan huyó al pájaro.

Juan fleed ACC-the bird

(intended as) 'Juan made the bird flee'

If we go back to the contrast between (37) and (38), we see that this notion of causation can also be extended to delimit the subjects allowed in middle (thus, dispositional) interpretations. A book does not initiate the event, because it holds no responsibility with respect to when and whether it is read. An external entity must initiate the reading event. However, John in (38a) is the weak causer of the event.

For explicitness, consider now how this causal link explains the two readings of *contaminante* 'polluting'. Remember (cf. 31) that this derived adjective gets a

habitual reading with an animate subject (un empresario contaminante 'a polluting businessman') and a dispositional reading with non animates (un producto contaminante 'a polluting product'). Why? The question is especially relevant, because Rifón (1996) has characterized non-animates with these adjectives as causers. The businessman is the entity responsible for the pollution, but there is no sense of responsibility affecting the product when it pollutes. The businessman triggers the pollution event, but then he does not play a role in how the event progresses: He can disappear and the pollution could remain. In contrast, the product has a much weaker relation with respect to the initiation, as it does not determine when the pollution takes place: If lead pollutes the waters, lead must have some properties (for example, 'being poisonous') in order to keep the waters polluted (that is, to guarantee the result or to maintain the progress of the ongoing polluting eventuality), but it does not initiate it. It needs to be placed, through facilitating circumstances, such that it can pollute in order to start the polluting eventuality. Thus, the businessman initiates the situation, but the situation can go on without him. The product acts in the opposite way: The pollution stops when it disappears, but it cannot initiate the eventuality without facilitating circumstances.

This contrast, again, has grammatical consequences. Stative constructions with *estar* and the past participle in Spanish focus on the result of something, and are generally incompatible with participants that trigger the initiation of the eventuality but are not directly involved in the result. In (41a), Juan presses the button (intentionally or not), but then the button remain pressed regardless of him. For this reason, (41b) is impossible, because Juan is not involved in the result. Compare this with the eventive passive construction in (41b), where the initiation of the event is still denoted by the construction, and where Juan is available as a complement.

(41) a. Juan pulsó el botón.

Juan pressed the button

b. El botón está pulsado (*por Juan).

the button is estar pressed (by Juan)

c. El botón fue pulsado (por Juan).

the button was ser pressed by Juan

As expected, the animate subject is not allowed in the *estar* + participle construction with *contaminar*, but the non-animate subject is, because the product is associated with the result, and not with the initiation.

(42) a. Moriarty contaminó Londres.

Moriarty polluted London

b. *Londres está contaminada por Moriarty.

London is estar polluted by Moriarty

(43) a. El plomo contaminaba Londres. 17

the lead polluted London

b. Londres está contaminada por el plomo.

London is estar polluted by the lead

Similarly, if something is *quebradizo* 'break-<u>dizo</u>, fragile', that something does not play a role in influencing when the breaking event would take place, if ever. It must have a set of properties that allow it to be broken (for example, a solid entity with some physical unity), and that are relevant for the breaking process and for the result achieved after breaking, but that are not responsible for causing that breaking event. ¹⁸ Given the central role of the causal link in habitual readings, the facilitating circumstances play, at best, a secondary role in habitual constructions. These facilitating circumstances do have some influence: If we say that someone is a smoker

(that is, that someone smokes frequently), this is not denied by the fact that the person does not smoke during a three hour long trip on a plane. Crucially for this restriction (Carlson 2011), we evaluate if something happens often considering only situations where the event can happen, given our assumptions about the normal behavior of the participants in that event. However, in habitual readings, unlike what we will see in §4.3. with respect to the dispositional readings, the facilitating circumstances do not lead deterministically to the event taking place. John can be a smoker even if in a situation where smoking is allowed (for example, an outdoors party) John decides not to smoke. Similarly, we say that someone is forgetful (*olvidadizo*), even if that person happens not to forget his wife's birthday in facilitating circumstances (a particularly stressful week).

4.2. The connection between habituality and adjective-to-noun conversion

The former sections identifies the causal link between the noun and the internal eventuality as the main factor that defines the habitual reading. Before moving to how dispositionals and potentials are distinguished, let us address the issue of why habitual adjectives systematically allow adjective-to-noun conversion.

The close connection between animacy and habituality explains why habitual adjectives can convert to nouns with far less difficulty than dispositionals or potentials. The fact that adjective-to-noun conversion is facilitated by animacy is well-known. Consider the following example:

(44) a. viejo

old

b. queso viejo

cheese old

'cured cheese'

```
c. romance viejo

ballad old

'ancient ballad'

d. hombre viejo

man old

e. un viejo

an old

'an old person' (but *'cured cheese' or *'ancient ballad')
```

One and the same adjective can refer to animates and non-animates, with slightly different meanings that share the semantic core 'of a certain age'. However, when it converts to a noun, the forced reading is the one referred to animates. There are many other cases of conversion where the preferred reading is the one related to animates:

```
(45) a. los infieles
the infidels
'unfaithful people' (not *'unfaithful depictions', etc.)
b. los gordos
the fat
'fat people' (not *'fat arms', etc.)
c. un inútil
a useless
'a useless person' (not *'a useless tool')
```

Bosque (1989) suggested a conceptual explanation to account for how animacy can facilitate adjective-to-noun conversion. One relevant difference between the semantic denotation of nouns and adjectives is that the former define kinds of entities, while the second predicates properties of those kinds. Bosque suggested that, conceptually, it is

more salient to establish relevant classes with animates than with non-animates, given that the properties that define the kind are richer in the case of humans. Humans can be characterized not only by a set of well-defined physical properties, but also by the social roles they play, their typical behavior, their mental and emotional states, etc.

If this explanation is right, then the fact that habitual adjectives are more prone to noun conversion follows from the same tight association with animate subjects that has been identified above. In order to have habitual reference, the adjective has to express properties of controlling entities, which, in turn, must be animate, and animacy facilitates noun conversion, because it helps construe the property as defining a kind.

4.3. Dispositionals vs. modals

Let us see now how dispositional readings are separated from modal readings, potential or deontic. I will contend that, in order to distinguish dispositionals from potentials and deontics, crucial reference has to be made to the properties of the noun: Dispositional readings are available when the properties of the noun are sufficient to guarantee participation in the event if the facilitating circumstances are in place. Modal readings emerge if the properties of the noun are necessary, but not sufficient, to guarantee participation in the event, even if there are facilitating circumstances. Consider (46) as an illustration.

- (46) a. un sello quebra-dizo
 - a seal break-dizo
 - 'a breakable seal'
 - b. cabello quebra-dizo
 - hair break-dizo
 - 'fragile hair'

The common conceptual knowledge about seals is that they have a function: To keep something closed. World knowledge also makes explicit that things that break easily do not perform well when used to keep something closed. By contrast, hair is not conceptualized as an instrument used with a particular function.

In (46a), imagine that we try to break the seal of an envelope and we do not manage to break it in our first try: We would not say that the seal is not breakable, because the adjective never implied that the properties it had would make the breaking event unavoidable once there is facilitating circumstances. We would just think that we did not try hard enough. However, we would say that (46a) is not a good description of a seal if, after repeated attempts and under facilitating circumstances, the seal would not break: This is a modal reading (specifically, potential). In contrast, (46b) is dispositional: Imagine that we pull the hair and it does not break. In this case, we might want to conclude that the hair was not fragile, because we facilitated the conditions for it to break, and yet it did not break.

What makes us decide between these readings? Interpreting (46a) in a dispositional way would imply that a seal has been designed with a set of properties that would necessarily lead to it breaking under facilitating conditions. These facilitating conditions are not restricted to human intervention: Violent movement, contact with other objects or changes in temperature could also set conditions where the unity of an object can be at risk. However, out of context, this goes against our world knowledge about the use of this instrument: They are supposed to be entities whose function is precisely to keep something closed, even when there are facilitating conditions for it to open. It is, then, unexpected that a seal is designed with properties that would make it break, because this would mean that its properties are sufficient to

guarantee that it will break. By contrast, it is expected that it is designed in such a way that breaking it is at least possible, meaning that it has the necessary properties to participate in a breaking event.

If we were to pin down the specific property that defines the potential reading, it would be the notion of instrument. Instruments are designed with a function in mind and, as such, they have to be designed such that they allow an external participant to control when and for how long they will satisfy that function. If we go back to the potential adjectives with *-dizo*, a striking property is that, beyond being non animate entities, they are also names of tools and instruments: *arma* 'weapon', *puente* 'bridge', *campo* 'field to grow plants', etc.¹⁹

Conversely, in dispositional readings neither instruments nor tools are involved. In (46b), hair is not an entity whose function is to keep something closed or open, so it is not in world knowledge that it must have a minimal consistency. In fact, world knowledge tells that hair is not particularly strong. People are not aware of prototypical situations where it would be necessary to break hair in order to satisfy any function. Thus, defining a set of necessary, but not sufficient conditions for the hair to be broken is not plausible. What is informative and plausible is to associate with hair a set of sufficient properties that guarantee participation in a breaking event.

Thus, in the absence of the causal link that defines habituals, the interaction between the facilitating circumstances and the semantic properties of the noun become crucial. Dispositionality is the situation where the properties of the noun guarantee that the facilitating circumstances will lead to the event taking place. These facilitating circumstances can be very complex: They include the possible conscious or involuntary involvement of external participants (force dynamics, for instance), the location of the object, the natural passing of time, etc. Modal readings emerge when

the noun's properties do not necessarily lead to participation in the event if there are facilitating circumstances.

The relevant properties of the noun are determined by world knowledge and conceptual information, and this has further consequences. As is generally the case with world knowledge and conceptual meaning (for example, Asher 2007), the set of conceptual assumptions about what can be an instrument or what has which function can be revised by contextual information. Consider the following utterance:

(47) Has diseñado mal el sello; es demasiado quebradizo have.2sg designed wrong the seal; it.is too break-<u>dizo</u>

'You have designed the seal wrong: it is too fragile'

The assumption that the seal was designed in an optimal way for its function is cancelled here. Thus, the dispositional reading becomes more salient.

4.3. Potentials vs. deontics

Thus, dispositionals are differentiated from modals because in the first, the combination of the properties of the noun and the facilitating circumstances guarantee that the event will take place.

Our final contrast is the one within the class of modals: Potentials and deontics. What they have in common is that the properties of the noun are not sufficient to ensure that the noun would participate in the event under the right conditions. The difference is, in the potential class, the facilitating circumstances play a crucial role, but they are irrelevant in the deontic one. If a weapon is *arrojadiza* 'throw-dizo, throwable', it means that, given reasonable facilitating circumstances that do not require the intervention of unusual instruments or helping tools, the weapon would be thrown. A spear is an *arrojadiza* weapon because reasonable circumstances (a warrior of normal strength, with enough space to take a run-up)

guarantee that the weapon can be thrown; a tank would not be a throwable weapon, even if we can throw it under very special circumstances, because its design as a tool is such that it could not be thrown (even if unusual circumstances, like using a huge catapult, could make it possible).

There are no documented adjectives in -dizo with a deontic meaning in contemporary Spanish (in this use it was replaced historically by -ble, cf. Clavería 2004) and, to the best of our knowledge, there are no cases of deontic adjectives with -nte or with -ón (specialized, as noted in §3 above, in habitual readings); deontic adjectives in -dero are not frequent either: (48) and (49) are the only two attestations with a deontic meaning with this suffix.

(48) paga-dero

pay-dero

'that must be paid'

(49) vence-dero

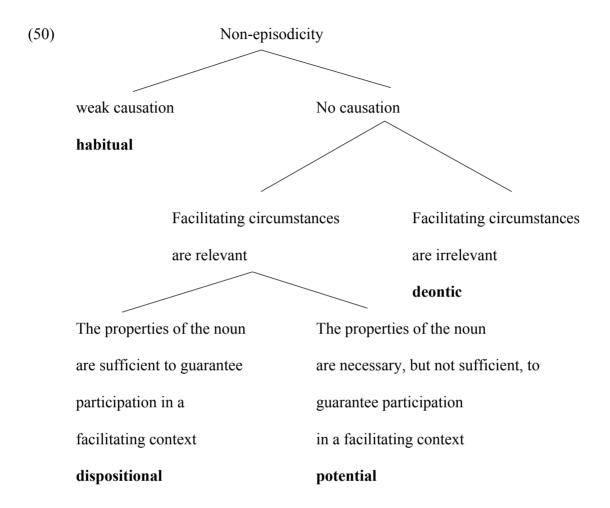
expire-dero

'that must expire'

In the deontic interpretation, even under facilitating circumstances, the event would not necessarily take place. The facilitating circumstances, in fact, would not play a role: Something can be *pagadero* (48) even if there are reasonable circumstances that facilitate payment but payment does not take place. Moreover, we could argue that, if something must be paid, it still must even in a context where there are no facilitating circumstances (for example, the person does not have the money to pay), so the facilitating circumstances become essentially irrelevant for the deontic reading.

4.4. Summary

We have shown that three factors can delimit the four readings, following the scheme in (50).



5. A technical implementation

The above provides an account of the way in which the habitual/dispositional/potential contrast emerges. Based on this, the following sectionsl present a particular technical implementation, framed in a neoconstructionist model, that accounts for polysemy in this domain.

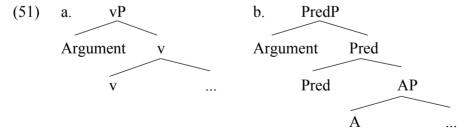
Three cases have been described regarding how the readings are obtained:

- i. cases with a polysemous affix (for example, -dizo) that produce words with two interpretations with different nouns,
- ii. cases with a polysemous affix (for example, -dizo) that produce words with only one possible interpretation, and
- iii. cases involving an affix that forces a particular type of reading (for example, habituals in the case of $-\delta n$).

Before the above can be analyzed, some assumptions about the syntactic position of the noun that the adjective modifies should be made explicit in section 5.1..

5.1. The subject of adjectives

Baker's (2003) revision of Bowers (1993, 2000) argues that a crucial categorial distinction between verbs and adjectives is that, while verbs introduce their subject lexically inside their own projection, adjectives are defective predicates that cannot introduce a subject. Adjectives must combine with a relational head, PredP, for a subject of predication to exist (see also Hale & Keyser 2002 for a similar proposal obtained from a different theoretical standpoint). This implies a view of adjectives as a defective category lacking some of the positive attributes that define verbs and nouns.

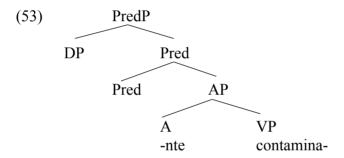


Thus, while the subject of the predication of a verb is properly an argument of the verb, and is directly selected by it, the subject of the predication of an adjective is an argument of Pred, a functional projection above the lexical category of adjectives. Pred can be viewed as the lambda-function in formal semantics: It is a head that turns

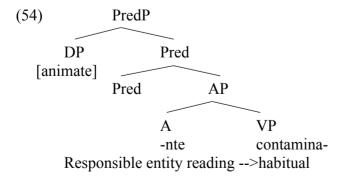
its complement into an expression with an open variable, and provides a specifier to introduce the constant that identifies that variable:

5.2. Polysemous adjectives (1): Dispositional-habitual

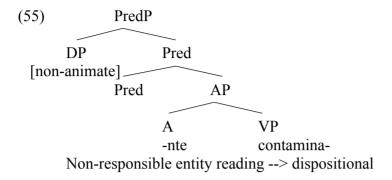
Consider now the case of an affix with several interpretations that forms a word allowing several interpretations, as in (31): *contaminante* 'polluting'. The relevant structure is (53):



Two interpretations are possible, according to the feature endowment of the DP. If it is animate and, thus, can hold mental states (54), it is interpreted as an entity that can establish a causal link with the event denoted by VP. Hence, a habitual reading emerges:



Consider now what happens if the DP is non-animate.²⁰

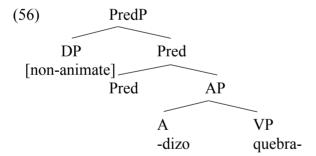


Here, the subject is non animate, so it cannot be responsible for the event.

Consequently, a weak causal link interpretation is excluded.

5.3. Polysemous adjectives (2): Dispositionals-potentials

Consider now the case of a polysemous affix inside a polysemous word that can get two interpretations, dispositional and potential (*quebradizo* 'break-<u>dizo</u>', as in 17). Here we start from a structure like (56):



The non-animacy of the subject eliminates the habitual reading, but still allows a choice between two readings: Dispositional and potential. In order to do that, speakers have to access the conceptual semantics of each of the nouns contained in the DP. This involves accessing the lexical entry of the noun, and specifically checking whether they involve a role that triggers the expectancy that the noun has to be used as an instrument to perform a function that will not be performed if the object breaks. There are various approaches to the conceptual semantics of nouns, and here I will

use Pustejovsky's (1995) qualia theory: Some nouns, interpreted as instruments, contain information about the function that they are designed to perform. This is known as the TELIC QUALE; a noun like *knife* would be specified as performing the function of cutting, because a part of understanding what a knife is in our world is knowing that it is not just an object that can cut, but an object designed optimally for cutting.

(57) *knife*

...

telic quale: cut (e)

...

Thus, speakers access the entry of *precinto* 'seal', and find a telic quale informing that the noun has the function of keeping closed.

(58) *seal*

. . .

telic quale: close (e)

•••

In the case of *sustancia* 'substance', there is no such telic quale, so there is no particular lexically-specified role that the entity has to perform. Thus, the dispositional reading is available by default. In fact, it is expected to be salient to the extent that we find no reason in our conceptual information to expect that substances will be willingly manipulated with the intention to break them.

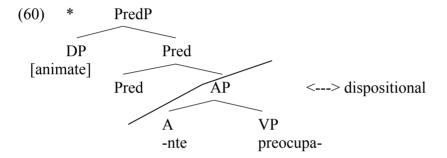
5.4. Adjectives with one single meaning

Let us move now to the case of adjectives with one fixed meaning and thus cannot alternate freely between animate and non-animate subjects despite containing an affix that otherwise allows for various interpretations (*preocupante* 'worrying', in 32).

Here the solution we will attempt is to associate the whole word with a particular context of structural licensing. One solution, inspired by Construction Morphology (Booij 2010), would be to simply list the affix + base combination in a way that it is associated with a dispositional or habitual meaning.

(59) [-nte [preocupa]] <---> dispositional

Once the meaning of the derived word is fixed, it can be explained that it does not allow animate subjects, because it would trigger a clash between the AP semantics and the interpretation forced by the subject:



There is a second alternative that is more compatible with a compositional view of structures and makes it unnecessary to list, directly, the fact that the adjective is habitual or dispositional: Associating the word wiht a context of insertion, with or without an animate subject. Harley & Noyer (2000) discuss similar cases, where items that in principle should be compatible with a variety of contexts in the syntax happen to be fixed, in their use, to only one of these contexts. Inside their system, for instance, a root never specifies its argument structure, so it should be compatible both with transitive or intransitive construals. This is true in some cases (61), but not in others (62): Some roots must be transitive, and some must be intransitive.

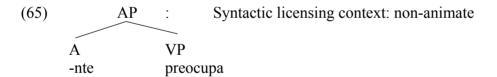
- (61) a. John walked through the park.
 - b. John walked the dog.
- (62) a. John destroyed the city.

- b. *The city destroyed.
- c. John arrived.
- d. *John arrived his dog.

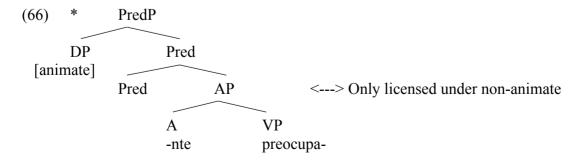
The second class of examples, where an element that is expected to be otherwise underspecified happens to be restricted to only one context, is accounted for by Harley & Noyer (2000: 361) through a licensing environment: In the lexicon, the item is listed with information about what kind of syntactic constituents should be in its context of insertion. For instance, the root in (62a) would be listed as (63), and the one in (62c) would be listed as (64):

- (63) destroy: Syntactic licensing context: + DP, + Cause
- (64) arrive: Syntactic licensing context: DP, Cause

I will use a version of this proposal: to associate the affix + base combinations with a syntactic licensing context that expresses whether [animate] can be in a projection that immediately dominates them or not. From here it follows necessarily that these affix + base combinations must be listed in the lexicon.



Thus, if we introduce the chunk of structure in (65) under a PredP containing an animate, it will not be licensed.



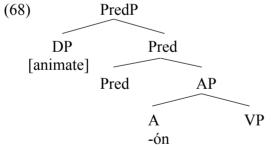
The obligatoriness of the dispositional reading would be a product of this insertion condition: Once the subject must be non-animate, it will be a non-controller, and thus, the habitual reading would be out.

5.5. An affix with only one meaning

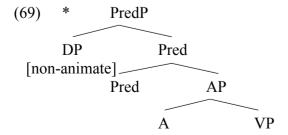
Let us now show that this proposal can also account for cases where the affix only has one meaning. The deverbal adjectiviser $-\delta n$ (for example, $abus-\delta n$, 'abuse- δn ') only gives habitual readings and, consequently, only accepts animate subjects of predication. I propose that this is a case where the lexical entry of the affix is licensed only in a context where [animate] is present. The situation is similar to the case discussed in §5.4., except that here there is no reason to associate the syntactic licensing context with a combination of affix + base, because the affix is systematically linked to habitual readings.

-ón: Syntactic licensing context: [animate]

Consequently, this forces a controller reading of the subject, which in turn restricts the interpretation to habituals.



Non-animate subjects are necessary to obtain dispositional or potential readings, but they are excluded for the licensing conditions of the lexical item:



6. Conclusions and theoretical implications

This section evaluates the consequences of this proposal for the three questions mentioned in §1.

6.1. Consequences for the range of non-episodic readings

The observation that there is a rich range of non-episodic readings is not new. What is new in this account is that, rather than postulating the four non-episodic readings as semantic primitives, and associating words or affixes with each of them, this paper approaches the issue by proposing that the affixes are underspecified and, by deriving the particular reading from contextual factors like animacy, causation and the conceptual information associated with the noun. In (§5) there is no need to make reference to 'dispositionality' or 'habituality' as primitives stored in the lexical entry: Instead, these notions are derived from independent factors. This contrasts sharply with what is generally done in neoconstructionist accounts of deverbal adjectives, where the non-episodic readings are associated with designated (aspectual or modal) operators internal to the derived word's structure (see Roy & Soare 2012 for the habitual and episodic readings of participles, through aspectual operators, and Oltra-Massuet 2013 for the potential reading of -ble derivatives). A common shortcoming of these approaches is that distinct operators have to be proposed, but they all have to be assumed to be spelled out as 'null'. In the account presented here null operators are not needed.

To the best of my knowledge, there is no previous attempt to contextually derive the non-episodic readings in Spanish, even if there are previous accounts (mainly on affix-rivalry in Spanish), with whom I share some assumptions, specially the idea that non-episodicity might derive from other factors. Rainer (1993, 1999)

separates three main classes (leaving aside the divide between active and passive deverbal adjectives): Dispositionals (which in his terminology cover the class that I call 'habitual' and the one I call 'dispositional', 1999: 4605-7), potentials (1999: 4607-10), and deontics (1999: 4610). Given the goals of these works (that is, mainly descriptive), his proposal focuses on the classification of the readings and the competition between affixes, even if he made two observations that are shared here: The properties of the modified noun, as conceptual semantics, are crucial in distinguishing the readings, and might make it unnecessary to stipulate the various readings as semantic primitives (cf. 1999: 4610, specially the observations about oscarizable 'Oscar-worthy' in contrast with extraible 'extractable'). Still, in these works there is no full account of how the linguistic context specifies each reading. It is, however, fair to say that Rainer has applied the idea that specific readings can be derived contextually from an underspecified semantics in other works, specially with respect to polysemy between agents, instruments and places in deverbal nominalisations (Rainer 2011, 2013).

Laca's (1993) goal is to account for rivalry between the two 'agentive' suffixes -nte and -dor '-er'. In this quest, she notes that their aspectual behaviors are different: the former can give habitual readings, but also allows episodic interpretations, while the latter specializes in habitual readings (in a wide sense). Again, there is no systematic attempt to derive this fact from other factors. Sharing certain goals with Laca, Rifón (1996) is closer to the goals of this paper and to the philosophy of its analysis: Rifón focuses on a scale of agentivity, and notes that each of these two 'agentive' affixes takes a different position on that scale (control over the situation, or not). I largely agree with Rifón's results, but note that -nte (as Laca and Rifón note) is compatible with agentive readings. From this point of view, this paper

can be interpreted as an attempt to derive the range of readings from some of the factors noted in the literature.

6.2. Consequences for polysemy

Polysemy is a major issue for the purposes of this paper, both regarding affixes and words allowing several non-episodic readings. Polysemy is a well-known issue in morphological studies (Bréal 1897, Ullman 1959, Katz & Fodor 1963, Norrick 1981, Lakoff 1987, Cruse 1992, Kilgarriff 1992, Hollósy 2008), and one for which various approaches within a range of theoretical frameworks have been put forward (Marchand 1969, Apresjan 1973, Beard 1990, Mel'cuk 1994, Panther & Thornburg 2002, Booij & Lieber 2004, Janda 2011). The solutions that have been offered generally fall into one of these three classes:

- a) The suffix is semantically underspecified and the base is responsible for deciding the meaning of the affix in the word (for example, Booij & Lieber 2004),
- b) The meaning is determined at the word level, assigning one interpretation to the combination of affix + base (for example, Beard 1990), and
- c) Polysemy is due to the rich network of related meanings in the affix (for example, Janda 2011).

Some of the above(for example, Booij & Lieber 2004) suggest that affixes that display various meanings are underspecified grammatically, and the base plays a crucial role in deciding the final meaning of the derivative. Others (for example, Janda 2011) suggest that the solution necessarily involves assignment of a whole atomic meaning to the whole word construct, the options being restricted on the base of a network of meanings and metaphorical extensions that relate words together. Finally, a third class of studies (Lehrer 2003) explains polysemy as an effect of the

affix allowing for a set of various related meanings, each of them instantiated in a different set of derivatives.

The results presented here support the hypothesis of underspecification: The semantics of polysemous affixes or words is broad enough to accommodate various readings, and they become specified in the context. Listing becomes unnecessary, as the account does not make direct reference to such notions as 'habitual'.

The results about what the domain of polysemy is not so clear. Similarly to Janda's (2011) view, polysemy appears to be resolved in many cases by taking into account the ingredients in the wider syntactic context of the word, beyond the properties of the affix and its base. However, it is also necessary to lexically list some whole words, which become fixed for one particular reading. This is similar to the approaches where polysemy is resolved at the word level. The preliminary results of this paper suggest a mixed approach to meaning underspecification: Underspecification is sometimes resolved taking into consideration the whole word, sometimes turning also to a wider linguistic context.

6.3. Consequences for the grammatical definition of adjectives

There are many approaches to what constitutes the criterion to distinguish adjectives from verbs (for example, Croft 1991, 2001, Hale & Keyser 1993, 2002, Jackendoff 1997, Baker 2003, 2008, to cite only some authors from different theoretical orientations). However, one common intuition across approaches is that adjectives lack two properties that verbs do have: i) verbs have been argued to introduce subjects of predication by themselves, in their lexical projection, while it is often claimed that adjectives need other structures to introduce their subjects (specially, see Hale & Keyser 2002 and the references in §5.1. above); ii) being temporally bound constituents, verbs describe both dynamic (eventive) and non-dynamic (stative)

situations and give rise to a richer aspectual typology, while adjectives seem to be restricted to non-dynamic situations, at least in their unmarked version (Croft 1991), and with restricted possible exceptions like evaluative adjectives (Stowell 1991, Arche 2006, Landau 2006). On the assumption that these two intuitions are at least on the right track, let us consider what the case study presented here can contribute to the discussion about what defines an adjective.

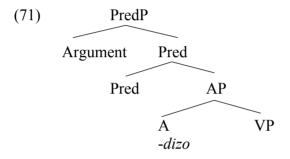
Our results suggest that what the deverbal adjectivisers considered here do is to impose a non episodic reading on the verb; beyond this, the choice of non episodic reading is not directly reflected in grammar. The question remains of whether this non episodic reading is imposed negatively or positively: does it emerge because the adjectival affix prevents the verb from combining with tense and aspect or is it defined explicitly in the affix, which acts as a function that takes an eventuality and turns them into a set of properties? We leave this problem open, as to the best of our understanding our data do not favour any of these two theories.

A relevant contrast resulting from the data is that, in the case of deverbal adjectives, I have argued that the semantic nature of the noun they combine with specifies the non-episodic reading that emerges. However, this is not what happens normally with verbs: Verbs generally have the power to coerce the semantic interpretation of their participant arguments so that the arguments fit the verbs' semantic type. Essentially, any noun phrase can be the patient with the verb *to break* (70). The verb forces an interpretation of the object as an entity with some physical unity that can be interrupted. If the entity is generally interpreted as lacking unity in the strict sense (because, say, it is an abstract noun, or a non-physical entity), a metaphorical reading emerges, but the verb still means *to break*.

(70) a. to break a glass

- b. to break a promise
- c. to break a dream

So why would nouns help determine the meaning of adjectives, while in the case of related verbs it is the verb that helps establish the meaning of the noun? I believe that the explanation lies in the different status of nouns as arguments with each one of the categories: Verbs introduce their participants by selection, but adjectives (cf. 71) do not introduce their subject of predication as a lexical argument.



Then, in an adjective, the noun is not dominated, c-commanded or m-commanded by A. It is rather the opposite: The subject c-commands AP, and has as a sister a higher-order constituent that contains AP. This reverses the direction of the constraints: Now the adjective does not decide the interpretation of the subject, but the subject will decide the interpretation of the adjective. Moreover, the adjective, lacking full-fledged temporal-aspectual information (unlike the verb), will be interpreted by default, as a property of the noun, not as a situation where the noun participates: Properties are non-episodic entities.

Admittedly, the potential consequences for the contrast between adjectives and verbs are quite speculative. A wider typological study comprehensive of a diversity of languages and a wider set of affixes and readings would be in a better position to confirm or reject the hypothesis argued for in this article. This paper is,

thus, an incomplete, but also a coherent account of a fragment of the grammar of deverbal adjectives that can be used as a first step towards a better understanding of the emergence of non-episodicity in morphology, and the relation between verbs and adjectives.

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NOTES

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2 The dictionary of the *Spanish Royal Academy* includes slightly over 1000 formations in *-ble*, almost 2000 words in *-nte* (after due removal of adverbs in -

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¹ The term EVENTIVE here refers to a verb denoting a dynamic situation that involves a rate of change (thus, excluding stative verbs). Similarly, EVENT refers only to dynamic situations. The more general term EVENTUALITY is used to refer to any kind of situation that can be bound through a temporal trace, including pure states and events.

mente), approximately 130 words in *-dizo* and approximately 70 relevant formations in *-ón*, despite its colloquial nature. In contrast, only four deverbal formations in *-oso* are recorded (and these are geographically restricted), seven in *-bundo* and fourteen in *-ndero*.

3 The same contrast is found with *hui-dizo* flee-dizo, but the is more difficult to handle, considering the existence of a lexicalised form of *huidizo* meaning 'elusive'. In the compositional reading, it can only refer to animate entities, but in its lexicalised meaning it admits non-animates:

i) una pista huidiza

a clue flee-dizo

'an elusive clue'

One could think that *huidizo* is not so interesting, because only living entities can have the property of fleeing. However, Spanish allows *huir* with other non-sentient subjects which also have the property of moving away from a reference point:

i) Porque no en vano el tiempo huye. (Torrente Ballester, *La saga/fuga de J.B.*, 1972)

because not in vain the time flees

'Because indeed time flees'

Crucially, *huidizo* cannot take this subject:

i) *el tiempo huidizo

the time flee-dizo

4 Spanish allows for a clear diagnostic of conversion (as opposed to possible noun ellipsis): *un* 'a' must be *un-o*, with an overt gender marker, whenever there is a null noun. Thus, whenever *un* precedes an adjective, it must have converted into a noun. This is confirmed by gradability: With *un-o*, the adjective is still an adjective, and

allows for degree i); with *un*, it loses gradability because it has been converted into a noun ii):

- i) un-o ø muy inútil one very useless
- ii) un (*muy) inútil a very useless

See Bernstein (1993) for details about this pattern and a potential analysis.

- 5 Documented through Google:
- (i) Un enojadizo que siempre se sale con la suya an anger-dizo who always SE comes with his one 'An angry guy that always has it his way'
- 6 Documented through Google:
- (i) Es un caprichoso, un cabezota y *un enfadadizo*.is a capricious, a stubborn and a anger-dizo'He is a capricious, stubborn, angry man'
- 7 Documented through Google:
- (i) Es un espantadizo que se acobarda con nadais a frighten-dizo who SE gets.scared with nothing'He is an easy to frighten man who gets scared in no time'
- 8 Documented through Google:
- i) Quizá sea una virtud, ser *un contentadizo* maybe is a virtue, to be a satisfy-<u>dizo</u>
 'Maybe it is a virtue, to be someone easy to satisfy'
- 9 Documented through Google:
- i) un veleta, un veleidoso, un mudadizo

a fickle, an inconstant, a change-dizo

'a fickle, an inconstant, a person that changes his mind'

10 It is not implausible that these uses of -ón can be unified as a general meaning similar to a quantifier of high degree: In combination with verbs, it would produce readings that characterize the modified noun as taking part often in an event. In combination with nouns, it would denote objects with a high degree of one of the properties that define the base noun (size or intensity being the most common ones). This unification could be supported by the fact that denominal adjectives like (27b) are possible only in combination with human body parts, so they must be predicated of human subjects. It seems more difficult to unify also the 'minimal quantity' reading in (27c), the suffix is assumed to denote an extreme degree, not indicating whether the extreme would be the lowest or the highest end along a scale. However, this should allow for 'infrequentative' readings in combination with verbs ('that seldom takes part in event V'). However, and to the best of my knowledge, this has not been attested. Finally, -ón has a use as a deverbal event nominaliser expressing a sudden movement, in combination with verbs denoting contact between two objects: empuj-a(r) 'to push' > empuj-ón 'a push'; ray-a(r) 'to scratch' > ray-ón 'a scratch'; roz-a(r) 'to rub' > roz-ón 'a scrape'. It is not obvious how the latter use could be unified with the rest, even though there is a sense of intense contact that is reminiscent of the notion 'high degree'. For these reasons, and even if there are grounds to attempt a unification of all these uses, they are described here as distinct affixes.

11 Used as an adjective, *tragón* 'swallow-<u>ón</u>' (which would be easy to conceptualize with personification of the subject, but can combine with a wide variety of non-animate subjects) combines with the following nouns (according to CREA and

Corpus del Español): niño 'child', indigentes 'poor people', griegos 'greek people', monstruos 'monsters', frailones 'friars', socialistas 'socialists', público 'audience', and flacas 'girls' (in some American varieties), in addition to proper names and person pronouns.

12 In *Corpus del Español*, the nouns that combine with *preocupante* are the following: *situación* 'situation', *dimensión* 'dimension', *tema* 'topic', *tendencias* 'tendencies', *dato* 'datum', *atención* 'attention', *aspecto* 'aspect', *abandono* 'abandonment', *signos* 'signs', *paréntesis* 'parenthesis, break', *mal* 'sickness, problem', *indicios* 'traces', *impunidad* 'impunity', *forma* 'form', *episodios* 'episodes', *endeudamiento* 'debt' and *dudas* 'doubts'.

13 Other *-nte* forms that occur only as nouns include those used to express socially or culturally established roles in an activity, such as *apostante* 'bet-<u>nte</u>, someone who bets', *estudiante* 'study-<u>nte</u>', *calumnia-nte* 'slander-<u>nte</u>', *cesa-nte* 'sack-<u>nte</u>, he who is removed from a position', *concursa-nte* 'compete-<u>nte</u>, contestant', *demanda-nte* 'suente', *firma-nte* 'sign-nte', *habita-nte* 'inhabit-nte', among others.

14 A second significant difference with *-dizo* (for our purposes) is that, while *-dizo* always gives non-episodic readings, *-nte* can also give specific event, episodic readings, just like participles (a category it is historically related to). Someone is *un atacante* 'an attacker' by participating in one attacking event: We do not entail a habitual participation in attacking events, and definitely it is not the case that, if someone, by virtue of his properties, is expected to attack in context X but has not attacked, he can be called an 'attacker'. Cf. similarly *un soliticante* 'an applicant', that is, a person who has applied for a position, or for a president, among other similar cases.

15 An anonymous reviewer points out that, in more complex constructions, there would be a second, external, eventuality (*buy* in example 36). To the best of my knowledge, this external eventuality does not play a role in deciding the reading of the adjective. It acts as a primary frame where the noun is presented as a participant; the deverbal adjective introduces a set of properties related to a second eventuality, the one denoted by the base verb. Thus, the primary eventuality imposes no restrictions to the type of secondary eventuality (for instance, there is no requisite that both eventualities are similar in duration, telicity or eventivity).

16 To my knowledge, the only exceptions are the verbs *enfadar* 'get angry' and *asustar* 'frighten'. They allow a construction with an external causer not corresponding to the experiencer.

i) a. Juan asustó a María.

Juan scared ACC María

b Juan enfadó a María

Juan annoyed ACC María

One observation is in orderer: (i) does not need to be interpreted as Juan intending to cause the psychological state in María. In (i) there is a complex, internal event, whereby María gets scared or annoyed, and there is also an external event, whereby Juan causes that internal event. María is still the causer of the internal event: If María gets annoyed because of Juan's comments (not meant as an offence), María is the only person that can be blamed for that. María is, then, the causer of the psychological event, even if a second external event is built above it, where Juan is the causer. Evidence that the causation event that involves Juan is not the event denoted by *annoy* or *scare* is that *Juan es asustadizo* 'Juan is scare-dizo' can never mean that Juan frequently scares other people. The reason is that the verbal base contained in the

adjective only refers to the psychological state, and Juan is not a direct participant in this event, so it cannot be modified by the adjective.

17 There is a second difference between (42) and (43): External aspect (Smith 1991) is perfective in the first case and imperfective in the second. The reason is that (42a) refers to a change of state, given that the animate subject starts the event at some point (defining an initial point), while the second (42b) refers to a stative situation where there is no defined starting or final point. This emphasizes that the non-animate subject does not define the causation of the eventuality, while the animate subject defines a causative event that starts at a particular point.

18 An anonymous reviewer, to whom we are grateful, points out that the anticausative construction with verbs like *break* is generally taken as internal causation. I follow Schäfer (2008: 176-209) in the proposal that the anticausative construction is actually non-homogeneous typologically and language internally: There are at least three distinct anticausative constructions, but what they have in common is that no agent or causer theta-role is assigned to the subject. Thus, even under anticausative construals, the nouns would not be categorized as the initiators of an eventuality.

19 Note that the characterisation can be extended to its derived adjectives, even if the suffix -ble '-able' is not considered here. Leaving aside highly lexicalised adjectives (amable 'nice'), the nouns they combine with tend to be interpreted as instruments designed to satisfy the functions denoted by the base verb: un objeto legible 'a book readable' forces interpretation of the object, whatever it is, as a something intended for reading.

20 For explicitness, these cases are represented with a feature [non-animate], even if it can be assumed that non-animacy could be characterized as absence of the feature [animate], that in such case would be a privative, not equipolent, feature.