



Three arguments for a treatment of *-vel* as a dynamic modal

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In this paper I argue that the suffix *-vel* ‘-ble’ in dispositional adjectives (such as *quebrável* ‘breakable’, *adorável* ‘adorable’, *durável* ‘durable’) behaves like a dynamic modal, and I offer three arguments in support of this view. First, I show that it is particularly difficult to capture the quantificational force of the suffix, and consequently of the derived adjective, in the same way that happens with other dynamic modals, like ability *-can* and dispositional *-will*. Second, I show that *-vel* ‘-ble’, like other dynamic expressions (e.g., *can*, *will*) is anchored to the subject of the modal and relativized to bundles of property expressions, not to propositions. In other words, they share the same kind of modal base. Third, I show that both *-vel* ‘-ble’ and dynamic *can* have a veridical effect when combined with predicates that denote a sensation or experience. Finally, I conclude that the suffix *-vel* ‘-ble’ expresses dispositions, best captured in the domain of dynamic modality as potentiality, rather than possibility, probability, moral obligation or causality (i.e., the trigger reading), as recently proposed by Resende and Rech (2020). This analysis affords a simpler, more elegant explanation for the different interpretations attributed to these adjectives across languages.



1. Introduction

In this paper I argue that the suffix *-vel* ‘-ble’ in what I call dispositional adjectives (Moreira, 2015, 2021) is best treated in the domain of dynamic modality. The term dispositional adjective is meant to cover this particular class of adjectives in Portuguese ending with the suffix *-vel* (as well as correlates in different languages, such as *-able* adjectives in English, *-ble* adjectives in Spanish). I claim that the suffix—and, consequently, the derived adjectival class—expresses dispositions, rather than possibility, probability, moral obligation or causality, as recently proposed by Resende and Rech (2020, p. 7) and exemplified in (1).¹

- (1) (a) possibility: *lavável* ‘washable’, *aplicável* ‘applicable’, *curável* ‘curable’
 (b) probability: *variável* ‘variable’, *agradável* ‘agreeable, pleasant’, *percível* ‘perishable’
 (c) obligation: *respeitável* ‘respectable’, *lastimável* ‘lamentable’,
 (d) causality: *confortável* ‘comfortable’, *amigável* ‘amicable’, *desprezível* ‘despicable’

To capture the apparently wide range of readings described above, Resende and Rech (2020, pp. 13–14), following the standard Kratzerian theory, posit that, in (1a), *-vel* ‘-ble’ is a circumstantial modal with existential force; in (1b), it is an epistemic modal with universal force; in (1c), it is a deontic modal, with universal force; and, finally, in (1d), it does not express modality, but causality, what they call the “trigger reading” (i.e., *confortável* ‘comfortable’ is interpreted as what causes X (comfort)). This analysis is summarized in **Table 1** (Resende & Rech, 2020, p. 8).

Interpretation	Modality type	Modal force	Modal base	Ordering source
Possibility	Circumstantial	Possibility	Circumstantial	Stereotypical
Probability	Epistemic	Necessity	Epistemic	Stereotypical
Obligation	Deontic	Necessity	Circumstantial	Deontic

Table 1: Ingredients for the modal interpretation of *-vel* (Resende & Rech, 2020, p. 8).

Modality is commonly analyzed as quantification over possible worlds. In Kratzer’s (1981) standard theory, modal expressions are contextually sensitive and vary along certain parameters. The first parameter, modal force, is lexically specified and can be of two basic types: necessity (modeled as a universal quantifier) and possibility (modeled as an existential quantifier). The

¹ The suffix *-vel* comes from the Latin *-bilis*. It is a highly productive suffix in Portuguese. The Brazilian Portuguese Dictionary Houaiss attests around 1600 adjectives formed with the suffix, the majority of them are verb-based (see Moreira, 2015 and references therein).

second parameter, the modal flavor, is determined by so-called conversational backgrounds. These are contextually determined elements that help to fix a consistent set of worlds. For instance, an epistemic conversational background helps to fix a set of worlds consistent with a set of information. A deontic one helps to fix a set of worlds consistent with a set of rules.

In Kratzer’s (1981) standard theory, different modal flavors (epistemic, deontic) are determined by the interaction of two conversational backgrounds, the modal base and the ordering source. In an epistemic modal expression like “Tom can be sleepy at 7 pm” (i.e., in view of what I know, it is possible that Tom is sleepy at 7 pm), the modal base is a set of propositions someone knows at a particular time (e.g., “Tom is a baby”, “Tom takes a bath around 6 pm”, “Tom is fed before 7 pm”, “Tom usually goes to bed early”, among others). This set of proposition makes up the modal base of epistemic *can*. According to Kratzer, modal bases can also be circumstantial or empty.

The ordering source, a set of propositions, is responsible for narrowing the modal base even further. Ordering sources can be of different types, such as stereotypical, deontic or empty. In our example, “Tom can be sleepy at 7 pm”, the epistemic interpretation arises from the interaction of an epistemic modal base and a stereotypical ordering source. That is, the worlds that make up our modal base are ordered in such a way that they get close to a typical day in Tom’s life.

In what follows, I argue for a different treatment of the suffix *-vel* ‘-ble’ than the one shown in **Table 1**, following previous work on dynamic modality, which is concerned with abilities, dispositions and tendencies (Von Wright, 1951; Brennan, 1993; Hackl, 1998; Giannakidou & Staraki, 2013; Menéndez-Benito, 2013; Moreira, 2015, 2021). I claim that an analysis along the lines of Resende and Rech (2020) fails to capture important properties of dispositional adjectives, and I provide three arguments for a treatment of *-vel* as expressing dynamic modality.

First, building largely on previous work by Hackl (1998), I show that it is particularly challenging to determine the modal force of *-vel* ‘-ble’ in the same way that happens with ability-*can*.² Consider a predicate like *lavável* ‘washable’. It is indeed compatible with a possibility interpretation, as in washable fabric, that is, a fabric that can be washed. But if the suffix is modeled as an existential quantifier, the conclusion that there is at least one possible world where the fabric can be washed is too weak and does not capture the essence of the predicate *lavável* ‘washable’.

Second, I show that *-vel* ‘-ble’, like other dynamic expressions (e.g., *can*, *will*) is relativized to bundles of property expressions introduced by *in virtue of* phrases, not propositions, following Brennan (1993). In other words, they share the same kind of modal base. Consider the predicate

² In part, this is what we see in the examples in (1) and also in Table 1, where the suffix varies in modal force (e.g., as an existential or universal quantifier). Assuming that modal force is lexically specified, it would be interesting to capture this variation, instead of just stipulating it.

quebrável ‘breakable’ in *enfeites quebráveis* ‘breakable ornaments’. The adjective holds for certain entities depending on their intrinsic properties, not on any given circumstances.

Intrinsic properties are keyed to the individual to which the dispositional adjective applies (Brennan, 1993). For example, if a given object *x* is breakable, the relevant properties for a breaking event would apply to that object, as in $\lambda(x)[\text{fragile}(x)]$, $\lambda(x)[\text{delicate}(x)]$ (see Moreira, 2015, p. 129). Circumstances, in turn, are certain facts and conditions independent of the individual. For instance, a vase can be said to be breakable by virtue of its own properties, not by virtue of circumstances, such as being carelessly packed or carried, or by how it was handled by a person, or because there was an earthquake. Even though these are circumstances that could cause a breaking event. Going back to the above example, *enfeites quebráveis* ‘breakable ornaments’, the modal reasoning in this case would be: in virtue of their properties (e.g., the nature of the material, the way they are pieced together, etc.), the ornaments can be broken. But intrinsic properties sometimes can be less clear, as shown below:

- (2) (a) Este teorema é demonstrável.
 ‘This theorem is demonstrable’
 (b) Esta situação é favorável.
 ‘This situation is favorable’
 (c) Esse livro está disponível.
 ‘This book is available’

By definition, a theorem is *demonstrable* if it can be logically proved. The reasoning behind this example also involves certain properties of the theorem, such as mathematical complexity. *Favorable* means “expressing approval” or “suggesting a good outcome” (Apple Inc. Dictionary, 2020). A favorable situation is one that has certain (relevant) properties evaluated as positive. In this case, the vagueness of *this situation* makes it difficult to point out exactly which properties are at stake. In any case, these properties are keyed to the situation. Finally, a book is *available* if it can be obtained by a person. For instance, a book is available at a library if it is, say, catalogued, numbered, not reserved, free, etc.³

Third, I show that both *-vel* ‘-ble’ and dynamic *can* have a veridical effect when combined with predicates that denote a sensation or experience, following previous unexplored observations in the literature (Vendler, 1957; Palmer, 1986). The term *veridical* is used in the sense of Giannakidou and Mari (2017), roughly as entailing actual truth. A predicate like *breakable*, for instance, is modal (i.e., nonveridical), whereas a predicate like *visible* is veridical (i.e., a visible star is one that you can actually see). This explains why dispositional adjectives derived from verbal stems that allow a sentient subject (see Barker, 1998) (e.g., *amável* ‘lovable’ or *desprezível*

³ I thank an anonymous reviewer for these examples.

‘despicable’) have a veridical flavor (e.g., *amável* ‘lovable’ as inspiring love and affection or *desprezível* ‘despicable’ as deserving hatred or contempt).⁴

This veridical effect can also be found in examples like *John is respectable* and predicates like *recomendável* ‘commendable’, *questionável* ‘questionable’ or *críticável* ‘objectionable’. To clarify the use of the term veridical, when I say *John is respectable*, I do not mean that John *can* be respected. As opposed to a predicate like *breakable*, expressing potentiality, *respectable* is veridical in the sense that I respect John and/or think that John is “deserving or worthy of respect” (Apple Inc. Dictionary, 2020). The same goes for the other predicates. If I find a behavior questionable, that means I am unsure about the appropriateness of the behavior. Not that it can be called into question. The generalization is that dispositional adjectives that allow a veridical interpretation are derived from verbs with a sentient subject. This class of verbs includes perception verbs, psych verbs, judging verbs.⁵ Consider the following example in (3):

- (3) A proposta era perfeitamente aceitável; só não foi aceita por embirração do diretor.
 ‘The proposal was perfectly acceptable; but it was not accepted because the director was captious.’

Note that we are dealing with two different meanings of *accept(able)* in (3). When I say the proposal was perfectly acceptable, it means that I find it adequate, suitable, correct. The adjective derives from an evaluative/subjective use of the verb *accept*, as in “regard favorably or with approval; welcome” (Apple Inc. Dictionary, 2020). In turn, when I say the director did not accept the proposal because he was captious, the verb *accept* is not used in an evaluative, subjective sense. It could be the case that the director thought the proposal was great (i.e., perfectly acceptable), but he dislikes the author of the proposal, therefore he rejected it on that basis. In that sense, the verb is used in a more objective sense as in “give an affirmative answer to (an offer or proposal); say yes to” (Apple Inc. Dictionary, 2020). A similar effect is documented for *condenável* ‘condemnable’ (see Moreira, 2021, p. 29).

These adjectives seem to be incompatible with the possibility interpretation (see examples in (1d) above). In fact, if something or someone is *amável* ‘lovable’ or *desprezível* ‘despicable’, the possibility interpretation is trivially true. In other words, if a person is lovable (i.e., inspiring love and affection), it is trivially true that this person *can* be loved.

⁴ Definitions taken from Apple Inc. Dictionary (2020).

⁵ An anonymous reviewer asks how do I handle dispositional adjectives which cannot presumably be treated as deverbal, but still admit a sentient subject, such as *amigável* ‘amicable’, *deplorável* ‘deplorable’, *formidável* ‘formidable’, *afável* ‘affable’. A few points need to be clarified. First, I use the term sentient subject exclusively to describe the subject of perception verbs, judging verbs, and psych verbs that derive *-vel* adjectives. I believe what the reviewer meant to ask was how does the present proposal handles the aforementioned adjectives that somehow seem to pattern together. I treat all of them as instances of evaluative adjectives that have a veridical flavor (see Moreira, 2015, 2021).

The overall picture that emerges from this analysis is presented in **Table 2**.

Modality type	Interpretation	Force	Modal base	Ordering sources
Dynamic	Dispositional	<i>quasi-universal</i>	Bundles of property expressions	Stereotypical Deontic

Table 2: The modality of dispositional adjectives.⁶

I claim that dispositionality, understood as the tendency or potential to behave in a way, can be more or less compatible with the notion of possibility. In a continuum, then, dispositional adjectives would range from purely modal expressions, such as, *quebrável* ‘breakable, interpreted as *what can be broken*, to veridical expressions, such as *agradável* ‘agreeable’, interpreted as *enjoyable, pleasant*. This analysis has implications for the view that the properties of dispositional adjectives are best analyzed as being distributed along their internal structure (Ultra-Massuet, 2014; Resende & Rech, 2020) and that *-vel* can be lexically specified for existential or universal force.

This paper is organized as follows, in addition to this introduction. In section 2, I present dispositional adjectives and I discuss the three aforementioned arguments in favor of a treatment of the suffix *-vel* ‘*-ble*’ as a dynamic modal. In section 3, I conclude the paper and present its main contributions.

2. The modality of *-vel* ‘*-ble*’

The study of dynamic modality encompasses abilities, capacities, dispositions, tendencies and susceptibilities (see Von Wright, 1951; Palmer, 1986, 1990; Brennan, 1993; Hackl, 1998; Portner, 2009; Giannakidou & Staraki, 2013; Menéndez-Benito, 2013; Moreira, 2015, 2021). Von Wright (1951, p. 28) originally used the term *dynamic modality* to talk about ability-*can*, as shown in the quote below.

The same modal words are used in ordinary language in other senses as well. An important use of them is connected with the notion of an ability and of a disposition and with the verb *can*. For example: “Jones can speak German” (= “it is possible for Jones to make himself understood in German”); “Jones cannot speak German” (= “it is impossible for Jones to make

⁶ The discussion presented here will not deal with the ordering sources. I assume, following previous work by Kratzer (1981) and Brennan (1993), that these can be stereotypical or deontic (see Moreira, 2015 for a discussion, see also Resende & Rech, 2020).

himself understood in German”). We shall call the modal concepts, which refer to ability and dispositions, dynamic modalities. (I am indebted for the term to Mr. Geach). [...] If Jones is speaking German, Jones can speak German; but Jones may be able to speak German though he is not now speaking it.

Consider a sentence like “Sam will sign anything” (Brennan, 1993, p. 3). According to Brennan, this example expresses a “disposition to behave in a certain way” (Brennan, 1993, p. 8). But dispositionality is also captured at the word-level in predicates like, *solúvel* ‘soluble’, *inflamável* ‘flammable’, *flexível* ‘flexible’ or *quebrável* ‘breakable’. In this respect, Cross (2005, p. 321) notes that “We have an intuitive feel for the distinction between dispositional and non-dispositional (or categorical) states, as reflected in our natural classification of fragility, flammability and solubility as dispositions, as opposed to, say, triangularity, which is pretty clearly not a disposition.” Adjectives formed with the suffix *-vel* ‘-ble’, then, are *par excellence* dispositional predicates.

In the following subsections, I will assume that a treatment of *-vel* ‘-ble’ on a par with ability-*can* and dispositional-*will* is on the right track, and I will further establish the right correlations among their behavior with respect to two important parameters of modal interpretation: force and flavor, as proposed by Kratzer (1977, 1981, 1991).

2.1 Force

Determining the quantificational force of ability and dispositional expressions is a notably difficult problem. Hackl (1998, p. 1) in discussing ability attributions, i.e., “sentences (or utterances) that are used to ascribe some individual some ability”, provides the following example (Hackl, 1998, p. 7).

(4) John can swim.

The author correctly notes that an existential treatment of ability-*can* is too weak, as (4) would be true if there is at least one possible world in which John swims. The intuition behind (4), instead, is that “if John can swim then he will swim in more or less all situations that meet basic felicity conditions rather than just in at least one of them” (Hackl, 1998, p. 37). Felicity conditions would be, for example, “John is alert”, “John wants to swim”, “John has access to a swimming pool” (Hackl, 1998, p. 8). According to Hackl (1998), ability-*can*, in this sense, seems to have a *quasi*-universal force.

This is because the ability in question are contingent on so-called “hard-wired properties” of *John*, to borrow a term from Menéndez-Benito (2013), and not on certain situations or circumstances involving a swimming event. This second, circumstantial dimension, would be captured by opportunity-*can* (e.g., John can swim today because he brought his swimwear). This

discussion is also linked to the notion of occasional abilities, such as “I can lift that rock”, and generic abilities, such as “I can lift a 50 pound rock” (Giannakidou & Staraki, 2013, p. 251).

It is possible to extend this analysis to dispositional-*will* in examples like (5), already mentioned above (Brennan, 1993, p. 3).

(5) Sam will sign anything.

The interpretation of (5) has a generic flavor, that is, *in general* Sam will sign anything you give him to sign (i.e., Sam is a bit careless or naive). Again, an existential treatment of *will* is not adequate to capture its behavior. One expects that Sam’s disposition will be manifested more or less in every situation that requires his signature.

In order to capture this special behavior, Hackl (1998, p. 8) argues that, when it comes to ability attributions (and, I claim, dispositions), existential quantification of possible worlds and generic quantification of situations are “two sides of the same coin”. As discussed by Hackl (1998, p. 8), “informally, a world is a conglomerate of situations varying in size and extension in time and location”. Under this view, worlds are understood as maximal situations. The author proposes that “John can swim”, in (4), be interpreted as in (6), where “All situations that include John and certain felicity conditions are met are expandable to situations in which he swims” (Hackl, 1999, p. 8).

(6) GEN_s [*John in s* & C(s)] $\exists e$ [*s overlaps with s' & John swims in s'*].

Ability-*can* and, by extension, dispositional-*will*, would both express “non-accidental generalizations” (Hackl, 1998, p. 10). This, I claim, is precisely what adjectives formed with the suffix *-vel* ‘-ble’ convey, as exemplified below.⁷

(7) Os enfeites são quebráveis.
the ornaments are breakable
‘The ornaments are breakable’

According to Cross (2005, p. 322), “If an object has a disposition (e.g., fragility) then there are some activation conditions (jarring) such that if the object were in those conditions, some further condition manifesting the disposition (breaking) would obtain”. This is the reasoning behind the interpretation of *quebrável* ‘breakable’ in (7). Once again, if *-vel* ‘-ble’ is modeled as an existential quantifier, (7) would be true if there is at least one possible world in which the ornaments

⁷ An anonymous reviewer asks if this is the case for all adjectives ending with the suffix *-vel* and asks, about adjectives like *visível* ‘visible’ or *navegável* ‘navigable’, if the activating conditions would be something like if someone looks and if someone tries to navigate through, respectively. The answer is yes. He/she further asks what would be the activation conditions for adjectives like *recomendável* ‘commendable’, *críticável* ‘objectionable’, and *questionável* ‘questionable’. The answer is roughly if someone evaluates it, if someone judges it, considering that these are judging verbs.

break (under certain activation conditions). Nevertheless, the interpretation of (7) is that the ornaments in question break easily.

An anonymous reviewer offers further examples and asks if the same modal reasoning apply to them. Consider *(in)visível* '(in)visible', *(in)audível* '(in)audible', *(in)acessível* '(in)accessible' (as in *an inaccessible place*), *acessível* 'affordable' (as in *affordable price*), *insuportável* 'unbearable' (as in *unbearable heat*), *(in)transitável* 'impassable' (as in *an impassable road*), and *navegável* 'navigable'. The shortest answer is yes. Although, as previously mentioned, dispositions have "activation conditions" (Cross, 2005) or what Heil (2005) called "reciprocal disposition partners".

These are clear in examples like *visible to the naked eye* or *audible to dogs, not to humans*. The fact that a sound is audible to dogs not to humans is due to properties of the sound, for instance, being high-pitched, that meet a reciprocal disposition partner (i.e., the dog able to hear high frequencies). These activation conditions or partners are usually understood in a very general sense. This is why some authors claim that dispositional adjectives only accept generic by-phrases, as first noticed by Chapin (1967, p. 70) in examples like "This flat tire is repairable by anyone/*by Harry".

Further examples showing the presence of these conditions or partners are given by an anonymous reviewer and follow in (8)–(9).

- (8) (a) O degelo acabará por fazer com que o Ártico se torne *navegável* todo o ano.
'The thaw will eventually make the Arctic *navigable* year-round.'
- (b) Com a derrocada, a estrada ficou *intransitável*.
'Due to the collapse, the road became impassable.'
- (9) (a) As inovações náuticas permitiram que todos os oceanos se tornassem *navegáveis*.
'Nautical innovations enabled all oceans to become *navigable*'.
- (b) A estrada está *intransitável*, a não ser por veículos todo o terreno.
'The road is impassable except for off-road vehicles.'

This reviewer points out a contrast between (8) and (9). Regarding (8), he/she claims that a set of properties of the subject of the modal is at stake, but questions is if the same holds for (9). In the case of *navegável* 'navigable', "able to be sailed by ships or boats" (Apple Inc. Dictionary, 2020), and *transitável* 'passable', "able to be traveled along" (Apple Inc. Dictionary, 2020), shown in (8), again we have clear examples of how dispositions can be understood in terms of activation conditions (Cross, 2005) and reciprocal disposition partners (Heil, 2005). If we say that the Pacific Ocean is navigable due to certain nautical innovations, it simply means that the relevant properties of the ocean with respect to navigation (i.e., deepness; wideness; calmness; height of flow speed; water clearance; presence of reefs, rocks, and other obstacles) meet a reciprocal partner (i.e., a ship, boat, sailing vessel, or any kind of nautical innovation). The same is true for a dispositional predicate like *soluble in the substance is soluble in alcohol, not in water*.

What about *(in)acessível* ‘(in)accessible’ *(in)visível* ‘(in)visible’ and *(in)concebível* ‘(in)conceivable’? It might appear that the properties in question are independent of the characteristics of the entity to which they apply. For instance, an anonymous reviewer points that a product is *(un)affordable* based on the purchasing power of the potential buyer. Once again, the buyer would be a reciprocal disposition partner, but the relevant properties would still anchored to the subject of the adjective (e.g, *price* or *cost* of the product).

The same reasoning applies to *(in)accessible*. This is why these so-called relevant properties vary if we talk about an accessible place, or an accessible person, movie, book, bathroom, price. Note that *Mary is an accessible boss* does not have such a clear reciprocal disposition partner and is interpreted in a very general sense (i.e., Mary is accessible to everyone, to her employees). The properties in this case are different (e.g., warmth, openness, etc.), but, crucially, they are keyed to Mary.⁸ The relationship between dispositions and their activation conditions is an interesting question that merits discussion. The proper treatment of this topic, however, is outside of the scope of this paper.⁹

The main objective of this section is to show that, like ability-*can* (Hackl, 1998) and dispositional-*will*, the suffix *-vel* also has a *quasi*-universal force. Adapting Hackl’s (1998) proposal to the example in (7): “All situations that include such ornaments and certain activation conditions are met are expandable to situations in which the ornaments break”.

2.2 Flavor

With respect to modal flavor, consider the following sample, repeated from (1) (Resende & Rech, 2020, p. 7).

- (10) (a) possibility: *lavável* ‘washable’, *aplicável* ‘applicable’, *curável* ‘curable’
 (b) probability: *variável* ‘variable’, *agradável* ‘agreeable, pleasant’, *perecível* ‘perishable’
 (c) obligation: *respeitável* ‘respectable’, *lastimável* ‘lamentable’,
 (d) causality: *confortável* ‘comfortable’, *amigável* ‘amicable’, *desprezível* ‘despicable’

⁸ We should also consider that a predicate like *affordable* is a gradable predicate. These predicates need a standard of comparison in order to determine its truth-conditions (Kennedy & McNally, 2005, p. 348). The idea of affordable housing, for instance, will vary if your standard of comparison is the purchasing power of a regular undergraduate student or Jeff Bezos. A house will be considered affordable if it is reasonably priced, but the very concept of *reasonably priced* is context dependent and can vary.

⁹ Consider the Japanese game Mikado. When a stick is on top of other sticks, it is possible to say that it is *removable*, but when that same stick somehow ends up at the bottom of the pile, it is not possible to say that this stick is *removable* anymore. In other words, the stick displays the same intrinsic properties, regardless of the position it occupies. It would be interesting to show which *-vel* adjectives display a similar behavior in that they seem to be dependent on external conditions. This is an interesting question (I thank an anonymous reviewer for pointing it out) that I leave for future work.

To account for the range of modal interpretations above, the authors posit the interaction of different modal bases (circumstantial or epistemic) and ordering sources (stereotypical or deontic). We know that modal expressions are contextually sensitive, that is, they are always relativized to certain pieces of information. As previously mentioned, these pieces of information are implicit. Consider an example from Kratzer (1977, p. 340): “The Maori children *must* learn the names of their ancestors”. The meaning of the modal *must* in this sentence is introduced by a phrase like *In view of what their tribal duties are*. According to Kratzer (1977, p. 342), “relative modal phrases like ‘must in view of’ and ‘can in view of’ should be considered as the foundation of the modals ‘must’ and ‘can’, respectively”.

An interesting fact about ability and dispositional modals is that they seem to be relativized to a set of properties of the subject of the modal, not a set of circumstances or information known by an agent at a given time. Consider the examples below.

- (11) (a) John *can* swim.
 (b) Sam *will* sign anything.
 (c) The ornaments are *breakable*.
 (d) The fabric is *washable*.
 (e) Sara is *adorable*.

In (11a), the ability to swim is “agent dependent” (Giannakidou & Staraki, 2013, p. 254), and the same goes for dispositional-*will* in (11b). Crucially, the ability to swim and the disposition to sign anything are both due to certain physical and psychological properties of *John* and *Sam*. The dispositional predicates exemplified in (11c–e) behave in a similar way. The ornaments break easily because of their physical attributes, such as material, fragility, etc.; the fabric can be washed without damage because of its physical properties, such as fiber type; and Sara inspires adoration and affection because of her particular attributes. I propose that the suffix has a *quasi*-universal force precisely because it can behave as a universal quantifier, in the case of *adorable* (as one reviewer correctly points out), but it also admits exceptions, in the case of *breakable*. As mentioned in section 2.1, dispositional adjectives express non-accidental generalizations, like generic statements, which allow exceptions. For example: “this vase is breakable, but I hit it and it didn’t break” (see also Moreira, 2015, p. 136).

Brennan (1993, p. 166) proposes that dynamic modals “are restricted by bundles of property expressions, which are bound to be interpreted relative to the syntactic subject of the modal sentence”. This is precisely the proposal I extend to dispositional adjectives in (11). Their range of modal interpretations is not determined by different modal bases (be it circumstantial or epistemic), but by the nature of the properties in question.

Consider additional examples in (12) and (13).

- (12) Dado o que se sabe atualmente, a história que ele contou na altura torna-se credível.
'Given what we currently know, the story he told became credible.'
- (13) Em dias sem nevoeiro, a ilha é visível a partir da costa.
'On a clear day, the island is visible from the coast.'

In both examples, the adjectives are relativized to properties of their subject. The story will be considered *credible* based on its properties (i.e., if it is persuasive, if it has verisimilitude, etc.). The island will be considered *visible* based on its properties (i.e., prominence, location, level of exposure, etc.).¹⁰

Brennan (1993, p. 182) makes the following observation: "For ability modals, the class of properties that are relevant depend on the type of ability that's being talked about: in the example above it's physical ability. It's a simple matter to conceive of other types of ability, from intellectual acumen to interpersonal maneuvering." I assume the same applies for dispositional adjectives. Different kinds of dispositions crucially depend on different kinds of properties.

The set of data shown in (1) can be divided into two main subclasses, as exemplified below.

- (14) (a) possibility/ potential adjectives:
lavável 'washable', *aplicável* 'applicable', *curável* 'curable', *variável* 'variable'.
- (b) veridical/ evaluative adjectives:
agradável 'agreeable, pleasant', *perecível* 'perceivable', *respeitável* 'respectable',
lastimável 'lamentable', *confortável* 'comfortable', *amigável* 'amicable', *desprezível*
'despicable'.

2.3 Veridicality

This subsection establishes a contrast between the modal notion of possibility (or potentiality) and veridicality, roughly understood as "entailing actual truth" (Giannakidou & Mari, 2017). In what follows, I will argue that so-called non-modal adjectives are actually veridical. I will also show that this veridical effect is documented in the literature. Vendler (1957, p. 148), for instance, makes the following observation:

can might become redundant in indicative sentences [of this kind]. Hence the airy feeling about *I can know*, *I can love*, *I can like*, and so forth. (...) For the present, it is enough to mention that while *to be able to run* is never the same thing as *to run* or *to be able to write a letter* is never the same thing as *to write a letter*, it seems to be the case that, in some sense, *to be able to know* is *to know*, *to be able to love* is *to love*, and *to be able to see* is *to see*.

¹⁰ We should not forget that both dispositional adjectives have activation conditions or disposition partners, so what counts as credible or visible may change, but in any case the modal base of the suffix will be made of properties.

In a similar direction, Palmer (1986, p. 75) discusses an interesting correlation among modality, sensations and evidentiality in English, based on the following examples.

- (15) (a) I *can* see the moon.
 (b) I *can* hear a funny noise.
 (c) I *can* smell something burning.
 (d) I *can* taste salt in this.
 (e) I *can* feel something hard here.

According to him, “all of these indicate that the speaker has the sensation, not that he has the ability to have it” (Palmer, 1986, p. 75).

This phenomenon (see Moreira, 2015, 2021) has also been attested with dispositional adjectives, particularly those which do not seem to immediately express possibility, as exemplified below.

- (16) *adorável* ‘adorable, inspiring affection’; *agradável* ‘agreeable, pleasant’; *condenável* ‘condemnable’; *deplorável* ‘deplorable, deserving condemnation’; *respeitável* ‘respectable, of some merit or importance’.

Instead of positing that these adjectives express obligation or necessity (see also example (1) above), I claim that what we actually have is a veridicality effect when the suffix *-vel* ‘*-ble*’ composes with a predicate of “sensation”, to use Palmer’s terminology. Predicates that allow a sentient subject (Barker, 1998) or some kind of judge, in the sense of Lasersohn (2005), give rise to dispositional adjectives with a veridical interpretation or subjective interpretation (see the sample in (14) above). The claim is that the activation conditions (see section 2.1) of these dispositional adjectives are not causal, but purely perceptive. With respect to this, consider the following observation by Heil (2005, p. 350).

A salt crystal manifests its disposition to dissolve in water by dissolving in water. But the manifestation is a manifestation of both the salt crystal’s disposition to dissolve in water and the water’s reciprocal disposition to dissolve salt. (...) I do not deny that some dispositions could manifest themselves spontaneously. (...) For the most part, however, dispositions manifest themselves in concert with reciprocal disposition partners.

The activation conditions of a predicate like *quebrável* ‘breakable’ are distinct from the activation conditions of a predicate like *amável* ‘lovable’. The manifestation of a disposition to break is generally dependent on some causing event.¹¹ The loving disposition, instead, is perceptually triggered, which explains its veridical character.

¹¹ We could have spontaneous events, but I am ignoring these complexities.

3. Conclusion

This paper has shown that an account of *-vel* ‘-ble’ as a suffix expressing dynamic modality is feasible and has put forward three arguments to support it. First, it is particularly challenging to determine precisely the quantificational force of the suffix. This has led previous accounts, such as Resende and Rech (2020, p. 16), to posit that *-vel* ‘-ble’ can be inserted into different modal (and non-modal) environments. But modal force is lexically specified in Portuguese (and English, for that matter) (Mendes, 2019). Therefore, a question arises as to why we would have a single suffix which is inserted in such different environments, with no clear mechanism for selection and for capturing the modal variation. Building on Hackl (1998), I claim that *-vel* ‘-ble’ has *quasi*-universal force, which is compatible with the idea that dispositional adjectives express non-accidental generalizations. This behavior patterns with the behavior of ability-*can* and dispositional-*will* and makes a solid case for treating them on a par.

Second, I have shown that *-vel* ‘-ble’ is relativized to bundles of property expressions introduced by “in virtue of” phrases, following the work of Brennan (1993). In other words, the suffix is dependent on properties of the subject of the adjective, not on circumstances or some set of information, *pace* Resende and Rech (2020). This is also a behavior linked to dynamic uses of the modal *can*, a fact that also lends support for the present analysis.

Third, I have also shown that *-vel* ‘-ble’, when attached to predicates of sensation (perception, psychological or judging verbs) give rise to a veridical effect. The same has been reported on a sentential level with dynamic uses of *can*, as discussed in the previous section.

Finally, I claim that a treatment of *-vel* ‘-ble’ as a suffix expressing dynamic modality is well-motivated and affords a simpler, more elegant explanation for the different interpretations associated with these adjectives.

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Competing Interests

The author has no competing interests to declare.

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