RESEARCH

Dispositions and characterizing sentences

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The aim of this study is to delineate how the dispositional reading patterns and interacts with other readings stemming from characterizing sentences (Krifka et al. 1995). It is claimed that dispositionals are indistinct from simple habituals, as opposed to restricted ones, and that there seem to be no linguistic arguments to favor an analysis attributing an existential quantificational force to dispositions in characterizing sentences. At the same time, it is argued that dispositionals in simple characterizing sentences cannot be readily subsumed under the standard generic operator GEN, rather these readings are due to DISP, a stativizing dispositional VP-level operator necessarily involving event plurality. The picture that emerges argues in favor of the line of thought promoted in Boneh & Doron (2010; 2013), whereby habituality is reducible to other existing categories: to genericity in restricted characterizing sentences and to dispositions in simple ones.

1 Introduction

Disposition ascriptions are taken to be statements that ascribe an inherent property to an object or an individual, which can remain unrealized, unless the right conditions obtain. In the philosophical literature, considerable effort has been devoted to clarify the deeper nature of dispositions, and this has often been manifested in attempts to reduce dispositions to terms such as conditionals or counterfactuals (Ryle 1949; Goodman 1954; Quine 1960, among many others), possibility modals (e.g. Vetter 2014), habituals (Fara 2005). For an overview, see Choi & Fara (2016).

Within linguistics, the manifestations of dispositionality are varied. When looking at English, most renowned are adjectives, generally derived by suffixation of *-able/ible* (*soluble, malleable, edible, breakable* but also *fragile*) see e.g., Kratzer (1981), constructions such as middles (e.g. Lekakou 2005) and *characterizing sentences* (Lawler 1973; Dahl 1975; Krifka et al. 1995).[1] For a recent in depth survey, see Cohen (2016; 2018).

This paper focuses on disposition ascriptions arising from *characterizing sentences*, customarily featuring, in English, a verb inflected in the present simple, such as in (1). The term *characterizing sentence* is attributable to Krifka et al. (1995: 3), who broadly qualified it as expressing regularities and including generic quantification over situations or worlds (Lawler 1973; Heim 1982; Schubert & Pelletier 1989).[2] Consider the following examples, taken by many to be classic cases of disposition ascriptions yielded by characterizing sentences:

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[1] Included under this group are also such sentences as *John smokes a cigarette after dinner*; *A potato contains vitamin C* (taken from Krifka et al. 1995: 3).

[2] In Italian, Lenci & Bertinetto (2000) Bertinetto & Lenci (2012) show that the *imperfetto* form is dedicated to the expression of disposition ascriptions as well as other gnomic meanings.

(1)   a.   This machine crushes oranges.

        b.   This car goes 120 mph.

        c.   Joe drinks beer.

        d.   Joe sells used furniture.

In example (1a), which has become emblematic for exemplifying the expression of a disposition in characterizing sentences, the machine in question can hold the property without there ever being any instantiating episodes in the actual world; example (1b), similarly to (1a) may state that the car was designed in such a way that it can go 120 mph, it was built to reach this speed. Equally, example (1c) may state that Joe is disposed to drink beer, if offered such a beverage; finally, example (1d), may convey that Joe is in a position to sell furniture, in virtue of some understood convention or acknowledged non-contingent tendency to do so, and where the conventionalized character of Joe's activity renders it dispositional.

Some of the authors who have tackled these types of sentences (Lawler 1973; Dahl 1975; Schubert & Pelletier 1989), noted that they can give rise also to habitual interpretations, where the machine habitually crushes oranges, being a race car, it habitually goes 120 mph, Joe habitually drinks beer, and sells furniture.

Thus, the issue arising with these characterizing sentences is to determine whether dispositions are amenable to generics, namely, whether the same underlying generic operator can capture both habitual and dispositional readings (as well as generic sentences involving reference to kinds, see fn. 2), or whether these are not merely distinct readings, but rather two different types of construals, with different semantic representations.

The standard view, as in Krifka et al. (1995), holds that only one meaning of the generic operator, which is quasi-universal, is sufficient to account for the different readings stemming from characterizing sentences, either by different partitions of material that goes into the restrictor and matrix or by different accent placements (cf. Cohen 2004 for this latter point). In other words, according to this view, disposition ascriptions are no different than habitual sentences, and also nominal genericity involving reference to kinds. For a similar view see also Carlson (1989), Schubert & Pelletier (1989), Lenci & Bertinetto (2000).

In contrast, other scholars hold that these sentences present a genuine ambiguity, where the dispositional reading is due to a distinct, covert, operator with an existential quantificational force over worlds (Lawler 1973; Dahl 1975; Green 2000; Menéndez-Benito 2005; 2013; Nickel 2010). The habitual interpretation arises from a covert operator with a quasi-universal quantificational force.[3]

The opposing views, then, debate whether dispositional readings can be subsumed under rule-based generalizations implicating an essentially universal quantificational force over worlds/situations, or rather express possibility of occurrence, subject to the conditions and circumstances under which the inherent property materializes, captured by the appropriate modal base.

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[3] Views also diverge on the status of habituals. In the literature on the matter, for some scholars, habituals are a subtype of generics (Carlson 1977; Dahl 1985; Schubert & Pelletier 1989; Krifka et al. 1995; Greenberg 2002; Landman 2008), while for others the habitual is not modal but a particular type of grammatical aspect (Comrie 1976; Kleiber 1987; Verkuyl 1995; Bonomi 1997; Xrakovskij 1997). See also Cohen (2003; 2016; 2018) for the view that habituals are intensional albeit non-modal. Lenci & Bertinetto (2000), Bertinetto & Lenci (2012) combine the modal and aspectual view, showing on the basis of Italian, that imperfective aspect is tightly tied to gnomic modality. All the above mentioned authors are in agreement that habituality is distinct from iteratives, which are extensional and episodic.

In this paper, I argue against the ambiguity approach, stressing the point that in characterizing sentences dispositionality cannot be dissociated from habituality, and that, in fact, in this particular type of linguistic environment (contrary from e.g. *-ible/able* adjectives), a distinction between the two is only apparent.

Crucially, it will be shown that there is no issue with whether there are or not occurrences in the actual world (existence presupposition), that can help distinguish between the two readings, and there is no clear evidence for an existential quantificational force in the case of dispositionals.

I further argue that disposition ascriptions in characterizing sentences should neither be subsumed under the quasi-universal generic operator of the type endorsed by Krifka et al. (1995), the one that is also applicable to nominal genericity involving reference to kinds (2a). Rather, I propose that disposition ascriptions underlie an unanalyzable operator DISP, which is a stativizer that takes as its input a lexically plural VP (cf. Kratzer 2008, among others), (2b).

(2)   a. $GEN_{e,w} [Q(e,w)][\dots P(e,w) \dots]$
       b. $DISP_{e'c,e,w}[\dots P(e_{PL},w') \& e'_C \subseteq e_{PL} \dots]$

DISP(P) is true of a state of affairs e'_C in the actual world iff e'_C is in w, and for all worlds w', which are worlds close to the actual world, there is an event e, which extends e'_C, such that e is a plurality of P-events in w'; DISP(P) therefore gives rise to disposition based habituals, where minimally only e'_C, which is defined contextually, takes place in the actual world, but the plural event need not. Importantly, the state of affairs e'_C is such that it contextually indicates a disposition to P. It can be the signing of a contract, the manufacturing of an object with particular qualities, an intention to act, or can be an event that can satisfy P itself.

DISP, contrary to GEN, is a monadic operator, with no restrictor. It presumably applies below VoiceP, since the dispositional property applies to an external argument. In other words, DISP is akin to Brennan's (1993) covert modal VP-operators relating properties to individuals, whereas GEN is likened to a modal S(entence)-operator.

One immediate correlate of this state of affairs is the necessity to distinguish in the linguistic analysis, between *simple* (e.g. in (1) – *Joe drinks beer; This machine crushes oranges*) and overtly *restricted* characterizing sentence – those that feature overt quantification and a restrictor (e.g. *Joe drinks beer every weekend; This machine crushes oranges every Sunday morning*); a distinction previously noted in the literature on habituals by Rimmell (2004), Vogeleer (2012), Boneh & Doron (2010; 2013), a.o. Crucially, it will be argued that disposition based habituality, underlying DISP, arises in simple characterizing sentences of the form exemplified in (1), and it is in this type of sentences that habituality and dispositionality are one and the same, in contrast to cases where the two readings cannot be confounded, such as with *used to*, on the one hand, which gives rise only to habitual readings, not dispositional ones, and *-ible/-able* adjectives, on the other hand, which are dispositional but non-habitual. Overtly restricted characterizing sentences, in turn, do not plainly give rise to dispositional interpretations, since temporally or locationally restricted "inherent properties" are hard to construe as dispositions (cf. Kratzer 1995 on Individual Level predicates). Further substantiation for this position comes from differences in scope interaction between an indefinite singular object and these assumed underlying operators and (cf. Rimell 2004 among others), that follow from DISP involving lexical event plurality, that an indefinite singular can out-scope, contrary to GEN,

showing scopal interaction with the indefinite singular in object position. The need to distinguish between these two types of sentences will be the object of section 2.[4]

Subsequent sections make the case that habituals and dispositionals are merely possible readings of simple characterizing sentences, but are semantically indistinct, and should be assigned the same underlying representation. Section 3 tackles the issue of event realization in the actual world (absence of an existence presupposition), and demonstrates that it cannot neatly tease apart so called habituals from dispositionals. Section 4 presents evidence from standard ambiguity tests such as VP-ellipsis and negated characterizing sentences and argues against the ambiguity approach. Finally, section 5 focuses on the argument from Free Choice *any* in favor of Dahl's (1975) conception that disposition ascriptions underlie existential quantification, contrary to habituals, dubbed as Possibility Hypothesis in Paula Menéndez-Benito (2013). It is advanced that Free Choice *any* cannot be a decisive test for detecting quantificational force of an implicit modal. Consequently, the patterning of FC *any* with covert modal operators in characterizing sentences does not constitute an obstracle for the claim put forth in this paper. Section 6 concludes.

2 Simple and restricted characterizing sentences

This section starts with an empirical observation whereby it seems to be the case that dispositional readings, i.e. those readings of characterizing sentences which tend not to involve event realization in the actual world (but see the next section), arise mainly or even exclusively in simple, unmodified, characterizing sentences, namely those without cyclic or quantificational temporal adverbial expressions. Consider the following example:

(3)   This machine crushes oranges {on Sundays / every Weekend / often}.

This example states that oranges were actually crushed at the frequency or intervals indicated by the adverbial expression constituting the restrictor. It does not seem to give rise to a disposition ascription, asserting the properties of the machine due to its design. A reading where the machine has a frequency based disposition, namely a Sunday-orange-crushing disposition seem to be an odd one, if at all possible, similarly to IL-predicates (see Kratzer 1995).

Also, with DPs denoting humans in subject position, when a quantificational modifier is inserted, only actual occurrences are perceived:

(4)   Joe drinks beer {on Sundays / every Weekend / often}.

In both these examples, an episodic sentence underlies a generic one, the restrictor introducing quantification over episodic events, without there being any dispositional statement regarding some inherent property ascribed to the subject of the sentence (cf. 2a and Krifka et al. 1995). According to (2b), a restrictor is not part of the semantics of DISP, as it is in the case of GEN.[5]

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[4] Cohen (2016; 2018) claims that although habituals are intensional, like generics and dispositionals, they are not modal, since they are parametric on time, not worlds. However, in this he mainly relies on characterizing sentences that are modified by quantified temporal expressions. This is taken up in section 2.

[5] A reviewer notes the following sentences as possible counter examples to this observation:

(i)   The heat comes on whenever the temperature drops below 70 degrees.

(ii)   The clock automatically resets twice a year.

(iii)   Mary handles the mail from Antarctica on weekends and John handles it on weekdays.

Indeed, the early literature on generics in the 80s has debated how to accommodate the generic operator GEN with simple characterizing sentences such as *Mary smokes*, which in the absence of an overt temporal or quantificational adverbial does not mean that in every given situation containing Mary, she smokes.

To remedy this, Krifka (1988) proposed that quantification ranges over normal situations, but without providing a precise definition of what constitutes a normal situation. And indeed, Cohen (1996; 2004) constructed a scenario that illustrates that abnormal situations such as forcing Mary to smoke at gunpoint, can easily be described by the sentence *Mary smokes*. In turn, Schubert & Pelletier (1989) suggested that a restrictor is provided contextually, however this is not always necessary, as such sentences are understandable even if uttered out of context, without prior knowledge of the situation.

Additionally, assuming a covert restrictor, one would also expect there to be no difference between the simple characterizing sentence, featuring no restrictor, in (5), and the restricted one in (6), since if according to the prevalent view in Krifka et al. (1995), habitual characterizing sentences express regularities which summarize a group of episodes or facts, and therefore the habitual sentence is related to an episodic sentence, there should be no difference between the two, contrary to fact.

(5)   Mary smokes #a cigarette / cigarettes.

(6)   Mary smokes a cigarette / cigarettes after dinner.

It is not clear, then, what in (5) blocks the indefinite singular *a cigarette* in a simple characterizing sentence, allowing only the bare plural NP *cigarettes*, in comparison to a similar sentence with an overt restrictor such as the one available in (6). In order to account for the infelicity of (5) with an indefinite singular, Krifka et al. (1995: 39–40) need to assume that each simple situation is related to a different object. They suggest that the solution to this wrinkle lies in there being quantification over "sum situations" with implicit restrictions. In such situations, an object can be a "sum object" and therefore only a bare plural would be an adequate direct object. When contextually there is one fixed object that does not vary across situations, a bare singular is possible, such as in the case of *John smokes a pipe* (Krifka et al. 1995: ex. 67b). However, this solution still leaves rather vague the relation between the covertness of the restrictor and the quantificational properties of the direct object as opposed say to those of the subject DP, which is not subject to the same differences in restricted and simple characterizing sentences, namely, the DP *an Italian* in *An Italian smokes cigarettes (after dinner)* is not interpreted differently in restricted and non-restricted sentences.

A solution to this puzzle proposed in the literature was to resort to some monadic operator in simple characterizing sentences (cf. Carlson 1977; Dobrovie-Sorin 2001; Rimell 2004; Vogeleer 2012; Cabredo-Hofherr 2013). Boneh & Doron (2013) follow this line

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Example (i) does not seem to express a disposition ascription of '(the) heat', but rather states conditions on regular occurrences not easily convertible to a property. Example (ii) might indeed constitute a true counterexample, since the cyclic adverbial expression is necessary to convey the disposition of the clock. However, in this case it might be that the characterizing sentence is in effect a middle construction (cf. Lekakou 2004; 2005), which in characterizing sentences attributes a property to a derived subject, and obligatorily involve a manner adverb. Note that in this particular example, the cyclic time adverbial is appropriate, precisely because of the properties of the referent of the subject DP – the clock. Note that with a different subject DP, and without the manner adverb, the sentence cannot be understood dispositionally, e.g. *This machine crushes oranges twice a year.*

As for (iii), I conjecture that what licenses the cyclic temporal adverb is the paired reading, namely that this sentence constitutes an answer to a pair-list inducing interrogative such as *Who handles the mail from A. when?* As far as I can see, such a question concerns time tables and not disposition ascriptions. The sentence in (iii) is not felicitous under a simple interrogative such as *What do Mary and John do for a living?*.

of thought and suggest that the infelicity of (5) with an indefinite singular object stems from the fact that one cannot smoke the same cigarette in multiple events, and that event iteration is lexically determined, rather than by means of quantification over events (Kratzer 2008; also Lenci 1995; Zucchi & White 2001; Scheiner 2002; Spector 2003; van Geenhoven 2004; Ferreira 2005).

(7)   a.   John takes care of a kid. $\exists > Op$
       b.   John usually takes care of a kid. $\exists > Op; Op > \exists$

Under such an account, the wide scope reading of the indefinite singular does not depend on the nature of a presumed covert restrictor, but arises precisely because of its absence. In a sentence such as *Mary smokes a pipe*, the object, a *pipe*, is understood as having wide scope in the type reading of the object DP, which is perceived as most salient, compare this to *Mary smokes a different pipe *(each evening)*. Thus, the operator is added to a construal that is lexically specified for event plurality, as formulated in (2b).

   The current perspective, continues the line proposed in Boneh & Doron (2010; 2013), showing that simple characterizing sentences give rise to the so called dispositional reading pattern like simple habituals and unlike restricted habituals/generics, with respect to the scope of a singular indefinite, confirming the semantics of DISP. The following examples corroborate this:

(8)   a.   John sells vacuum cleaners / #a vacuum cleaner. Krifka et al. (1995: ex. 66a)
       b.   This brush paints crumbing walls / #a crumbling wall.
       c.   This law firm defends tycoons / #a tycoon.

Whereas these sentences are all natural with bare plurals, an indefinite singular can only be interpreted with a type reading, not the token one. A token interpretation seems to direct towards a habitual interpretation, where the same vacuum cleaner is sold time and again, by, say, a hustler seller; the same crumbling wall is painted and repainted over and over again; the same tycoon is defended repeatedly by the law firm. Under the type reading of the direct object, it seems that the disposition is too particular, and therefore the oddness of an unmodified indefinite singular direct object is pragmatically based. Compare the examples in (8) to those in (9) where the type reading is obviated:

(9)   a.   John sells a particular type of vacuum cleaner.
       b.   This brush paints only a unique sort of wall.
       c.   This law firm defends a specific type of tycoon.

The next three sections further develop and substantiate the claim that disposition ascriptions and habituals stemming from simple characterizing sentences have one and the same underlying semantic representation. Section 3 addresses first the issue of event realization in the actual world that is often taken to intuitively differentiate the two, and dismisses this characterizing factor as superficial.

3 Event realization in the actual world

Let us consider again the by now familiar examples of characterizing sentences such as the ones in (1), repeated in (10), where it seems that under the habitual reading, multiple occurrences are understood to take place in the actual world, and under the dispositional

reading, all occurrences can take place in worlds excluding the actual one, but relevantly close to it.[6]

(10)   a.   John drinks beer.

           b.   This printer prints 50 pages/minute.

With respect to (10a), consider for instance a situation of preparing for a party, where the host consults John's friend on whether he should serve beer at the party given that the host knows that most of his friends are wine drinkers. In such a context John's friend can suggest that beer should be served since John will be interested in drinking some. This is irrespective of whether John drank beer or not before. It is sufficient that there be familiarity with John's intentions or presumed wishes. Similarly, (10b) can be truthfully uttered in a situation where the printer remains in its box without ever printing a single page. This is customarily understood to be the dispositional reading. At the same time, clearly there can be recurring situations in which the printer prints 50 pages per minute.

Importantly, under the current conception, simple characterizing sentences are indistinct as to the disposition/habit ascribed to humans or artefacts, they both rely on a deductive, rather than inductive, generalization mechanism, and in this sense are similar to rule-like generalizations, be it between humans and social norms or conventions, or between artefacts and their design. Therefore, neither necessarily require occurrences in the actual world (cf. Dahl 1975; Laca 1990; Lenci & Bertinetto 2000; Bertinetto & Lenci 2012 for discussions of the availability of two types of generalizations; see also Prasada & Dillingham 2005 and Carlson 2006 on regularities underlying habitual statements).

The issue of event occurrence or its absence can be subjected to further scrutiny when considering cases where only one occurrence happened in the actual world. In this respect, the sentences in (10), can be uttered truthfully when the first occurrence is one that manifests the disposition that is to recur in similar relevant accessible worlds (cf. 2b). In (11), too, where one occurrence is enough to indicate a disposition to play the harp, irrespective of the availability of occurrences in the actual world.

(11)   Bill plays the harp.

Additional such examples are abundant:

(12)   Look, the Prime Minister dyes his hair!   (adapted from Vogeleer 2012: ex. 14c)

(13)   When did you start to smoke?

The ascription of the habit of hair dying to the prime minister in (12) can be made on the basis of the observation of, or acquaintance with a single occurrence. Here, a dispositional reading and a habitual one are particularly hard to distinguish, since one occurrence can indicate the disposition to dye one's hair but can also indicate the actual existence of a habit, as in a specific cultural setting it is enough for a man to dye his hair to be considered one that does so habitually. Similarly, in (13), a question, such as the one exempli-

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[6] Lenci & Bertinetto (2000: 266–269) discuss the reasons for this state of affairs, essentially pointing to the modal base as the source for variation between characterizing sentences with or without actual event realization. In particular, in the case of characterizing sentences with relational quantificational adverbs (e.g. *often*), they suggest that the existence presupposition of instantiating events stems from the requirement of quantificational adverbs to quantify over non-empty domains.

fied, can be felicitously uttered when said while the addressee smokes for the first time. Especially in the case of humans, disposition ascriptions are mainly a matter of subjective social construction (cf. Dahl 1975; Laca 1990).

Importantly, all these cases express or relate to situations in which there was only one occurrence in the actual world, but this occurrence cannot be understood episodically.

Next, consider an example such as (14), where non-occurrence in the actual world is the most natural interpretation.

(14)   Mary handles the mail from Antarctica.

In (14), Mary has a job to handle mail that is never expected to arrive, since in the actual world no one lives in Antarctica, and thus Mary does not actually engage in handling of mail events. However, in other relevant accessible worlds, Antarctica may be inhabited and in those worlds, then, Mary handles the mail *habitually*, in virtue of her work contract.

When observing all these types of examples, it emerges that under the so called dispositional reading, intention/decision to act in a certain way, a particular design of an artefact, an observed occurrence, the signing of a work contract or some other bureaucratic procedure, or any social convention, which necessarily obtain in the actual world, constitute the basis for event recurrence in each of these examples, irrespective of whether the recurrence obtains in the actual world or not. In other words, it seems that dispositionality stemming from these type of constructions always goes hand in hand with event plurality. The dispositional property related to an event is never episodic. Multiple occurrences of the described event may take place in other accessible worlds (cf. 2b).

The claim can be made stronger by observing that an episodic occurrence expressed with the simple present (or simple past) is not in any way dispositional or expressing the manifestation of a disposition. In order to try and substantiate this claim further consider sentences featuring events that are necessarily episodic, since they are expected to be instantiated only once in a person's lifetime (cf. de Swart 1991 on "once-only" predicates), this way neutralizing plurality of occurrences:

(15)   #John loses/lost his virginity.

Despite the fact that humans, as procreating creatures, are "disposed" to lose their virginity, although they are not obliged to, (15) cannot be understood as giving rise to a disposition ascription. Presumably since no series of events can be associated to the state of affairs indicating a disposition in plausible accessible worlds.

In sum, when considering the issue of event realization in the actual world it becomes clear that there is no way to keep distinct the two readings. In all cases, what indicates there to be a disposition is lexically specified in the content of the VP, and relies on world knowledge, namely concrete facts about the world and its artefacts, as well as social norms and conventions. Differences are attributed to whether event plurality related to the manifested disposition takes place in the actual world and/or in the accessible worlds, which is pragmatically determined.

This way of perceiving the reading stemming from such sentences is captured by DISP, introduced in (2b), reiterating the point made by Boneh & Doron (2010; 2013). Under this view, to recall, event plurality occurs in alternatives to the actual world, which are worlds where nothing inhibits the disposition from being manifested habitually. But in the actual world, there is no requirement for further actualization, only for the manifestation of a disposition, e'_C, be it via an instantiating event, such as in examples (12)–(13), or some world knowledge based convention, such as in examples (1d) or (14).

The next two sections move on to tackle the ambiguity approach advocated by Lawler (1973), Dahl (1975), Green (2000), Menéndez-Benito (2005; 2013), Nickel (2010), whereby habituals and dispositionals have distinct semantic representations, underlying a different quantificational force. Section 4 advocates against there being ambiguity stemming from this type of sentences, by applying familiar ambiguity tests; Then, section 5 attempts to show that the test brought to substantiate existential quantification underlying disposition ascriptions, is not in fact a counter argument to the main claim of this paper.

4 On ambiguity

In order to counter the ambiguity approach stipulating two distinct readings to characterizing sentences – habitual and dispositional – standard ambiguity tests, introduced by Zwicky & Sadock (1975), will be applied to these sentences. Under the current view, taking the two readings to be semantically one and the same, the tests should not obviate one reading as distinct from the other.

Zwicky & Pullum (1975) provide the following deletion under identity test:

(16)   They saw her duck and (her) swallow.   Zwicky & Sadock (1975: ex. 58)

This shows that the basic sentence *They saw her duck* gives rise to a syntactic ambiguity between a reading where *her* is a genitive pronoun modifying the noun *duck*, and a reading where *her* is the subject of the verbal predicate *duck*. What (16) shows is that under conjunction and deletion, the elided part has to be identical to the structure of the first conjunct. Each time, only one of the interpretations is available for both conjuncts. It is not the case that the first conjunct can be interpreted featuring genitive *her* and the second with the accusative marked *her*. Analogously, consider (17), which can be felicitously uttered in a context where a car dealer wants to convince a race driver to exchange her old car, which she really likes, for a brand new one:

(17)   Your old car goes 100 mph without any problem, but so does this brand new one.

The old car may be understood to go 100 mph habitually, in virtue to the owner's profession, without a clear knowledge of what is its maximal speed capacity, but with respect to the brand new car, the speed may be intended dispositionally, in the sense that there are no actual driving events of this car yet, and that this is the car's inherently ascribed property. The felicity of this example, where ellipsis does not distinguish the habitual reading from the dispositional one, indicates that there is no true ambiguity. Namely, the two types of readings distinguishing plurality as having occurred in the actual world (first conjunct) or not (second conjunct) are pragmatic in nature and do not derive from two distinct semantic representations. This follows from the differences in actualization in the real world discussed in the previous section.

A parallel example, with animate subjects this time, is provided in (18). A host would like to know what to prepare for his guests for dinner. He receives the following information:

(18)   John eats meat and so does Bill.

In this case, it is irrelevant whether one conjunct gives rise to a habitual reading and the other to a dispositional one, i.e. he does not object to eating meat, and would eat meat if presented with the right occasion, even if so far he has not eaten meat on a regular basis, due to external circumstances such as severe shortage of meat, or religious interdictions.

A second piece of evidence comes from applying classical cases of ambiguity, where negation of one interpretation is still consistent with the truthfulness of the other, exemplified in (19), where if he didn't see her bird it can still be the case that he saw her change her posture, and vice versa.

(19)   He didn't see her duck.

Let us consider the outcome of applying this test to characterizing sentences such as in (20), which are the negated counterpart of the examples in (1).

(20)   a.   This machine doesn't crush oranges.
        b.   This car doesn't go 120 mph.
        c.   Joe doesn't drink beer.
        d.   Joe doesn't sell used furniture.

These sentences give rise to an interpretation whereby the machine never crushes oranges, the car never goes 120 mph, Joe never drinks beer, and Joe never sells used furniture. Whereas the absence of the disposition to perform the described events is an obvious and available interpretation of these sentences, they do not seem to give rise to a habitual interpretation either. That is, it is not the case that in the absence of a dispositional reading, a habitual reading obtains.

To strengthen the argument with negation, consider the following examples, which are pragmatically odd:

(21)   #This machine does not crush oranges (in virtue of its design), although it (occasionally/usually) does.

(21')   #This machine does not (occasionally/usually) crush oranges, although it does (in virtue of its design).

The reason for the oddness is that the sentence in (21) cannot be used to state that the machine doesn't have the disposition to crush oranges (negation of the main clause, without the adjunct), since, for instance, it was designed for a different purpose, but actually does so recurrently – namely gives rise to a habitual reading, or vice versa in (21'), where the machine doesn't habitually crush oranges (negation on the main clause), although it has the disposition to do so. Thus, this context shows that negating the so called dispositional reading does not allow a habitual reading to survive, and vice versa, indicating that the two reading are indistinct, and do not represent a case of ambiguity.[7]

In conclusion, these tests clearly indicate that the readings cannot be neatly teased apart and kept distinct, and are either identical or in a privative relation, where one subsumes

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[7] To further put to the test the claim in the paper, a reviewer inquires whether with VP-ellipsis of simple characterizing sentences (ii), the following description can be rendered:

(i)   **Description.** There are two tools: Tool-1 is conceived to do P, but misused to do P' by a craftsperson, and another, never used Tool-2, whose primary use is to P'.
       Under this description, Tool-1 does not have the disposition to P', but is habitually used by the craftsperson for P'-ing; Tool-2 does not habitually P, but has the disposition to P'.

(ii)   This Tool-1 P's, and so does Tool-2.

It seems to me that there is no problem to obtain such an interpretation. Consider:

(iii)   This tool drills holes, although it was designed for drawing, and so does/as does that one (pointing to a true drill), although, as far as I know, it was never used before.

the other. In other words, there are two pragmatically available readings, that stem from the same underlying semantic, representation suggested in (2b).[8]

Next we turn to consider the argument provided to substantiate a distinct underlying operator with an existential quantificational force in dispositional sentences, mainly relying on environments where Free Choice *any* can be licensed.

5 The Possibility Hypothesis and the argument from Free Choice *any*

While there is little disagreement that habituals, similarly to many plain generics, involve universal or quasi-universal quantification over situations or worlds (see the authors cited in section 1), the view that takes there to be an existential quantifier underlying the dispositional interpretation goes back to Dahl (1975) and has been dubbed by Menéndez-Benito (2013) the Possibility Hypothesis.

Initial indication in favor of the Possibility Hypothesis was provided by the availability of paraphrases to characterizing sentences such as in (1) with a possibility modal (Menéndez-Benito 2005; 2013). For instance, examples (1b–c) can be respectively paraphrased as follows:

(22)　a.　John can / might drink beer / has the capacity to drink beer.

　　　b.　This car can go / has the capacity to go 120 mph.

The main argument for the Possibility Hypothesis comes from the licensing of Free Choice (FC) *any* by modal auxiliaries, which is taken to serve as direct indication of the quantificational force of the implicit modal underlying a dispositional sentence (cf. Dayal 1998). Menéndez-Benito (2005; 2013) points to the following pattern, where FC *any* is licensed under *can* (23a), but not under *must* (23b):

(23)　a.　John can eat anything.

　　　b.　*John must eat anything.

Now, in the case of characterizing sentence, FC *any* is licensed, indicating the presence of an implicit modal operator.

(24)　John eats anything.

This implicit modal operator seems analogous to *can* in (23a), not to *must* (23b), in its ability to license FC-*any*. Menéndez-Benito therefore takes this to indicate that the implicit modal is existential. According to her, the covert dispositional operator differs from *can/might* in how the conversational background is determined (see discussion in Menéndez-Benito 2005; 2013).

In what follows, relying on Dayal's analysis for licensing FC *any*, and in particular on the fact that as part of its meaning it introduces a *Fluctuation Requirement*, I show that while indeed existential quantificational force is natural for the licensing of *any*, it is not the only possibility, and therefore, cannot serve as a clear cut indication for the underlying modal force of the covert modal implicated in characterizing sentences, dismissing a potential obstacle to the claim in this paper that in simple characterizing sentences

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According to (2b), the content of e'$_C$ is flexible and therefore, even a drawing tool can be misused as a drilling tool if there are indications for a disposition, which, besides the telic qualia, can also be instantiating episodes (see the discussion of examples (12)–(13), above).

[8] This is also expected from an approach such as the one advocated by Krifka et al. (1995), since for them, too, the two stem from the same underlying representation.

habitual and dispositional readings are amenable to the same underlying semantic representation, and are not due to, respectively, universal and existential quantification over possible words.

To set the stage for the discussion in this section, let us introduce Dayal (2009), who takes FC *any* to underlie universal quantification (25a), similarly to a universal quantifier like *every*, additionally introducing, as part of its meaning, the *Fluctuation Requirement* (25b):

(25)   a. $[\![\text{Any}]\!] = \lambda P \; \lambda Q \; \forall x \; [P(w)(x) \rightarrow Q(x)]$ Dayal (2009: ex. 5a)

         b. $\neg \exists X \; \forall w' \; w_a \leq w' \; \lambda x \; [P(w')(x) \; \& \; Q(w')(x)] = X$ Dayal (2009: ex. 5b)

The *Fluctuation Requirement* states that no single set of individuals X is such that it constitutes in every accessible world (w_a) the set of individuals in the intersection of the nominal and the verbal properties (P, Q) in that world.[9]

Therefore, in the case of possibility modals with existential quantification, the requirement is naturally satisfied, hence the felicity of FC *any* in these environments.

(26)   a.   Bill may read any of these books.   Dayal (2009: ex. 8)

         a'. $\forall x \; [x \leq \iota y \; [\text{books'}(w)(y)] \rightarrow \exists w' : \text{ACC}(w,w').[\text{read'}(w')(x)(b)]]$

         a''.   book a: w1 → a, w2 → a, w3 → ∅, w4 → ⌧;
                book b: w1 → ∅, w2 → b, w3 → ∅, w4 → b

In this example, it is not the case that every book in the set of books is read in all accessible worlds: Namely, book *a* is read in worlds 1, 2, whereas book *b* is read in worlds 2 & 4.

In contrast, in the case of *must*-like modals, sets of individuals (i.e. *books*) are identical across all the accessible worlds, the *Fluctuation Requirement* is not respected and *any* is not available.

(26)   b.   *Bill must read any of these books.   Dayal (2009: ex. 9)

         b'. $\forall x \; [x \leq \iota y \; [\text{books}(w)(y)] \rightarrow \forall w' : \text{ACC}(w,w').[\text{read'}(w')(x)(b)]]$

         b''.   book a: w1 → a, w2 → a, w3 → a;
                book b: w1 → b, w2 → b, w3 → b

In this vein, in plain episodic sentences, the exclusion of FC *any* is trivial, since the set of individuals universally quantified over is only evaluated with respect to the actual world, the only relevant world, leading again to a violation of the *Fluctuation Requirement*.

(26)   c.   *Bill read any book / any of these books.   Dayal (2009: ex. 10)

         c'. $\forall x \; [\text{book'}(w)(x) \rightarrow \text{read'}(w)(x)(b)]]$

         c''. $\forall x \; [x \leq \iota y \; [\text{books'}(w)(y)] \rightarrow \text{read'}(w)(x)(b)]]$

As already stated, in what follows, I would like to advance that the argument involving the licensing of FC *any* cannot serve as a clear cut diagnostic to detect existential quantification over universal.

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[9] In a later paper, Dayal (2013), agrees with Chierchia (2013) that universal quantification is the result of an implicature arising from the assertion of the existential force of FC *any*, which is in interaction with an exhaustified set of alternatives. In this later paper, Dayal adapts the Fluctuation Requirement to be a *Viability Constraint*. For reasons of ease of exposition, I maintain the older version.

First, not all speakers reject (24) with an interpretation where there are actually regular eating events taking place in the actual world, namely a habitual interpretation. Consider (27) and (28b) placed in the context set up in (28a):

(27)   In his youth, John ate anything.

(28)   a.   If you don't do housework regularly, what do you do when all your cloths are dirty?
         b.   I (simply) wear anything.

Both (27) and (28b) are felicitous under what is understood to be a habitual reading. Relatedly, an anonymous reviewer, to whom I am grateful, helps strengthen this point by suggesting that in English (29) is perfectly acceptable.

(29)   Bill used to read any book.

Here, it is considerably less plausible that what licenses FC *any* is an existential quantifier, since *prima facie* there is nothing in the habitual periphrastic construction that points to such a quantificational force.

Moreover, this reviewer suggests that what is at stake are the modal properties tied to imperfective aspect and not quantificational force *per se*, and in support of this, provide the following pair of examples, in Italian:

(30)   a.   Paolo poteva   leggere qualsiasi libro.
               Paolo can.IMPF.PAST read   any   book

         b.   Paolo ha potuto   leggere qualsiasi libro *(a sua disposizione).
               Paolo can.PFV.PAST   read   any   book   (at his disposal)
               'Paolo could read any book (at his disposal).'

Both (30a–b) feature an overt modal with existential quantification, differing as to the viewpoint aspect the modal is inflected with. The two examples contrast with respect to whether additional modification (subtrigging, to be introduced shortly) is obligatory or not for licensing of FC *any*. The examples illustrate that this is so with perfective aspect (30b), but not with imperfective (30a). Imperfectivity as a licensor of FC *any* goes back to Berinetto & Lenci (2012)'s conception of imperfectivity (e.g. the Italian *imperfetto*) as underlying gnomic statements, of which habituals and dispositions are subtypes, according to them. The centrality of imperfective aspect is observable also without an overt modal:

(31)   a.   Paolo leggeva   qualsiasi libro.
               Paolo read.IMPF.PAST any   book

         b.   Paolo lesse   qualsiasi libro *(a sua disposizione).
               Paolo read.PFV.PAST   any   book   at his disposal
               'Paolo read any book (at his disposal).'

Thus, in Italian an (episodic) sentence with the imperfective is perfectly fine without subtrigging (31a), contrary to a verb inflected for perfective aspect (31b).[10]

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[10] I am indebted to an anonymous reviewer for providing the examples in (30)–(31).

To clarify, subtrigging – the name given by LeGrand (1975) to licensing by a modifier, later adopted by Dayal (1998) – was shown to make the presence of FC *any* licit, e.g.in episodic sentences (cf. 26c) and with an overt *must*-like modal (26b) (for discussion of the following examples see Menéndez-Benito 2005; Dayal 2009; Chierchia 2013, among others):

(32)   a.   Bill read any book *(he found) / *(that was on his reading list).

Dayal (2009: ex. 2)

        b.   Bill must read any book *(he finds) / *(on his reading list).

Dayal (2009: ex. 3)

According to Dayal (2009), with a restrictive relative clause the satisfaction of the *Fluctuation Requirement* obtains, since variation in the set of books is derived via the relative clause:

(33) $\forall x$ [[book'$(w_a)(x)$ & $\exists w'. w_a \leq w'$ [found'$(w')(x)(b)$]] $\rightarrow$ read'$(w_a)(x)(b)$] $\equiv \forall x \forall w'.$ $w_a \leq w'$ [[book'$(w_a)(x)$ & found'$(w')(x)(b)$] $\rightarrow$ read'$(w_a)(x)(b)$]

Dayal (2009: ex. 11b–c)

Thus with the relative clause or a modificational phrase, the set of individuals is not a fixed set, since it is not part of the immediate knowledge of the speaker or attitude holder. It might very well be the case that no books were found, or that there are no books on the reading list. Thus, the *Fluctuation Requirement* is respected, since not all books are read in all accessible worlds.

In the Italian examples above, perfective viewpoint aspect is either episodic or enforces an actuality entailment on a modal (see Hacquard 2006; 2009), disallowing the *Fluctuation Requirement* to hold without subtrigging.

Therefore, it appears that what is at stake in the licensing of FC *any* is not directly the quantificational force of the (covert) modal: existential versus universal, but whether the *Fluctuation Requirement*, introduced by *any*, can be respected. Existential modality readily enables this, and imperfective viewpoint aspect, illustrated with the Italian data, does too.

Nevertheless, before moving on, a note is due about *covert* subtrigging, where FC *any* appears to be licensed in e.g. an episodic sentence without an overt modifier, but where "interpretation is limited to a subset of what the noun would otherwise denote" (see Dayal 2004: 3), as in (34):

(34)   After dinner, we threw away any leftovers.   Dayal (2004: ex. 8a) (30)–(31)

In this respect, one may wonder whether simple characterizing sentences giving rise to a habitual reading exemplified in (27)–(28b), are not licit because of covert subtrigging, namely, supplemented with the restrictive clause *I can find – I simply eat/wear anything I can find*. If this were the case, then one could claim that the habitual is akin to *must* modals, requiring subtrigging, and there is nothing that is inconsistent with the picture drawn by Menéndez-Benito (2005; 2013).

However, whereas covert subtrigging is indeed a plausible understanding of these sentences, it should be determined whether these examples obligatorily require covert subtrigging or not. This question should be subjected to an empirical investigation, but some insight that this is not the case can be gleaned from considering other habitual constructions, such as *used to*, exemplified in (29), or the equivalent of (27) with *would*, namely, *In his youth, John would eat anything*. It is clear that in these cases covert subtrigging is

optional, but not required. Furthermore, it is important to note in this respect, that the form *used to* is not related to any particular quantificational force, nor to GEN (see Binnick 2005; 2006; Boneh & Doron 2010; 2013); on the other hand, *would*, which may be taken to be a modal with universal quantificational force, underlying GEN (as suggest Boneh & Doron 2010; 2013), does not impose obligatory covert subtrigging, as is the case with the overt modal *must*. Finally, and importantly, there is no clear distinction between the so called dispositional exemplified in (24), and the so called habitual of example (27), in line with the data presented in previous sections.

Therefore, it seems that the environments in which FC *any* is licensed are varied in their underlying semantics, and cannot simply reduce to universal vs. existential quantificational force. That is, when assuming a covert modal operator, one cannot immediately deduce that its quantificational force is existential if FC *any* is licensed.

It is not my aim to elucidate the particular mechanism of licensing of FC *any* in simple characterizing sentences giving rise to habitual and dispositional readings, which might be due to imperfectivity as suggested by the reviewer, or may be due to the possibility of allowing for exceptions, therefore differing from strong necessity modals. The current discussion merely enables to point out that the argument presented by Menéndez-Benito (2005; 2013) in favor of existential quantification associated with the dispositional reading need not be an obstacle to the claim advanced in this paper.

In closing, let us consider Nickel's (2010) examples with FC *any*, testing the ambiguity of a sentence such as *This vehicle goes 120 mph*. Nickel examines parallelisms between (35a)–(35a') and (35b)–(35b').

(35) a.   The Eurostar goes 120 mph.   Nickel (2010: ex. 9)
      b.   My Peugeot goes 120 mph.
      a'. The Eurostar goes any speed up to 120 mph.
      b'. My Peugeot goes any speed up to 120 mph.

According to him, (35a) conveys that the Eurostar goes at this speed in all normal situations where it rides, therefore expressing a habit; whereas (35b) expresses the disposition of the Peugeot to go at this speed, since this is what it does or can do in some of the normal situations in which it travels. Now, whereas (35b') is comparable to (35b), both expressing the disposition of the car to go 120 mph, but not its habit, as there are worlds in which the car need not go at that speed, (35a') and (35a) are distinct. This is explained, according to Nickel, as follows: if (35a) is taken to involve universal quantification, whereby in every accessible world the Eurostar goes at the indicated high speed, in (35a'), because of the presence of *any* – such an interpretation is not available. Under Nickel's assumptions about quantificational force, the difference between the pairs of examples is expected. This reiterates the point made by Menéndez-Benito that FC-*any* is available only under the dispositional reading, i.e. under existential quantification but not under the habitual one.

However, a closer scrutiny of these examples reveals that despite the parallelisms that Nickel draws, it cannot be claimed that examples (35a') and (35b') both exclusively give rise to interpretations that highlight the capacities of the respective vehicles, to use Nickel's terms. Both examples can be very well understood to mean that in every world the Eurostar/my Peugeot go in varying speeds not higher than 120 mph.

With the linguistic expression *any speed up to 120 mph* it seems to be the case that Dayal's *Fluctuation Requirement* is respected, since the numerical values of the speeds need not be the same across all the accessible worlds in order for the sentence to be true, contrary to a stable set of individuals (e.g. *books, cards*).

(36)   a. $\forall x$ [x = numerical value between 0 and 120 mph [speed'(w)(x)] $\rightarrow$
              Op w': ACC(w,w').[go'(w')(x)(Eurostar / Peugeot)]]

        b.   w1 $\rightarrow$ 110 mph, 115 mph, 120 mph…;
              w2 $\rightarrow$ 70 mph, 80 mph, 90 mph…
              etc.

Thus, whether one wishes to emphasize the vehicle's disposition in terms of the speed it goes, or its actual regular travel speed, the sentences in examples (35a′) and (35b′) equally qualify. Therefore, the parallelism that Nickel points to is only the result of a particular pragmatic setting, and should not be taken to be an indication of the semantic analysis of these expressions in terms of their quantificational force.

In sum, this discussion leads back to Carlson's (1981) view, whereby the presence of *any* forces a dispositional reading, but that otherwise, this type of sentence is vague with regard to the expression of dispositionality or habituality. The examples in (24), (27) and (28b) show that even if *any* forces a dispositional reading with characterizing sentences, it does not exclude a habitual one, strengthening the point made in the previous sections that the two readings are semantically indistinct.

It becomes clear that what is at work are pragmatic conditions of interpretation and not directly the modal force of the implicit operator presumably distinguishing between a habitual and a dispositional reading, and more crucially whether the actual world can be included in the set of worlds quantified over or not.

6 Concluding remarks

While there may be various linguistic manifestations of dispositional ascriptions (see Cohen 2016; 2018), the aim of this study was to delineate how the dispositional reading patterns and interacts with other readings available in characterizing sentences. It has been claimed that dispositionals are indistinct from simple habituals, and that there seem to be no linguistic arguments to favor an analysis attributing an existential quantificational force to dispositions in characterizing sentences. At the same time, it has been argued that dispositionals in simple characterizing sentences cannot be readily subsumed under the standard generic operator GEN, and rather these readings are due to DISP, a stativizing dispositional VP-level operator necessarily involving event plurality.

Lastly, the picture that emerges argues in favor of the line of thought promoted already in Boneh & Doron (2010; 2013), whereby habituality is reducible to other existing categories: to genericity in restricted characterizing sentences and to dispositions in simple ones.

Abbreviations

IMPF = imperfective, PFV = perfective

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References

Bertinetto, Pier Marco & Alessandro Lenci. 2012. Habituality, pluractionality and imperfectivity. In Robert I. Binnick (ed.), *The Oxford handbook of tense and aspect*, 852–880. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oxfordhb/9780195381979.013.0030

Binnick, Robert I. 2005. The markers of habitual aspect in English. *Journal of English Linguistics* 33. 339–369. DOI: https://doi.org/10.1177/0075424205286006

Binnick, Robert I. 2006. *Used to* and habitual aspect in English. *Style* 40(1–2). 33–45.

Boneh, Nora & Edit Doron. 2010. Modal and temporal aspects of habituality. In Malka Rapaport-Hovav, Edit Doron & Ivy Sichel (eds.), *Syntax, lexical semantics, and event structure*, 338–363. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199544325.003.0016

Boneh, Nora & Edit Doron 2013. Hab and Gen in the expression of habituality. In Alda Mari, Claire Beyssade & Fabio Del Prete (eds.), *Genericity*, 176–191. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199691807.003.0006

Bonomi, Andrea. 1997. Aspect, quantification and *when*-clauses in Italian. *Linguistics and Philosophy* 20. 469–514. DOI: https://doi.org/10.1023/A:1005388230492

Brennan, Virginia. 1993. *Root and epistemic modal auxiliary verbs*. Amherst/Boston, MA: University of Massachusetts dissertation.

Cabredo-Hofherr, Patricia. 2013. Bare habituals and singular indefinites. In Alda Mari, Claire Beyssade & Fabio Del Prete (eds.), *Genericity*, 192–221. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199691807.003.0007

Carlson, Gregory 1977. *Reference to kinds in English*. Amherst, MA: University of Massachussets, Amherst dissertation. Published in 1980 by Garland.

Carlson, Gregory N. 1981. Distribution of Free Choice *any*. *Chicago Linguistics Society* 17. 8–23.

Carlson, Gregory N. 1989. On the semantic composition of English generic sentences. In Gennaro Chierchia, Barbara H. Partee & Raymond Turner (eds.), *Properties, types and meaning, Vol II: Semantic issues*, 167–191. Dordrecht: Kluwer. DOI: https://doi.org/10.1007/978-94-009-2723-0_5

Carlson, Gregory N. 2006. Generics, habituals and iteratives. In *The encyclopedia of language and linguistics*. 2nd ed; Elsevier. DOI: https://doi.org/10.1016/B0-08-044854-2/00256-X

Chierchia, Gennaro. 2013. *Logic in grammar: Polarity, Free Choice and intervention*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199697977.001.0001

Choi, Sungho & Michael Fara. 2016. Disposition. In Edward N. Zalta (ed.), *The Stanford encyclopedia of philosophy*. URL = <https://plato.stanford.edu/archives/spr2016/entries/dispositions/>.

Cohen, Ariel. 2004. Existential generics. *Linguistics and Philosophy* 27. 137–168. DOI: https://doi.org/10.1023/B:LING.0000016441.89129.3d

Cohen, Ariel. 2016. The square of disposition. In Fabienne Martin, Marcel Pitteroff & Tillmann Pross (eds.), *Morphological, syntactic and semantic aspects of dispositions: Working papers of the SFB 732*, 51–64. Stuttgart: Universität Stuttgart.

Cohen, Ariel. 2018. The square of disposition. *Glossa: A Journal of General Linguistics* 3(1). 90. DOI: https://doi.org/10.5334/gjgl.476

Comrie, Bernard. 1976. *Aspect. An introduction to the study of verbal aspect and related problems*. Cambridge: Cambridge University Press.

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

Dahl, Östen. 1985. *Tense and aspect systems*. Oxford/New York: Basil Blackwell.

Dayal, Veneeta. 1998. *Any* as inherently modal. *Linguistics & Philosophy* 21. 433–476. DOI: https://doi.org/10.1023/A:1005494000753

Dayal, Veneeta. 2004. The universal force of Free Choice *any*. *Linguistic Variation Yearbook* 4. 5–40. DOI: https://doi.org/10.1075/livy.4.02day

Dayal, Veneeta. 2009. Variation in English Free Choice items. In Rajat Mohanty & Mythili Menon (eds.), *Universals and Variation. Proceedings of GLOW in Asia 7*, 237–256. Hyderabad: EFL University Press.

Dayal, Veneeta. 2013. A viability constraint on alternatives for Free Choice. In Anamaria Falaus (ed.), *Alternatives in semantics*, 88–122. Palgrave Macmillan. DOI: https://doi.org/10.1057/9781137317247_4

de Swart, Henriëtte. 1991. *Adverbs of quantification: A generalized quantifier approach*. Groningen: Groningen University dissertation.

Dobrovie-Sorin, Carmen. 2001. Adverbs of quantification and genericity. In Yehuda Falk (ed.), *Proceedings of IATL 17*. Jerusalem: The Hebrew University of Jerusalem. http://linguistics.huji.ac.il/IATL/17/D-Sorin.pdf.

Fara, Micahel. 2005. Dispositions and habituals. *Noûs* 39. 43–82. DOI: https://doi.org/10.1111/j.0029-4624.2005.00493.x

Ferreira, Marcelo. 2005. *Event quantification and plurality*. Cambridge, MA: MIT dissertation.

Goodman, N. 1954. *Fact, fiction and forecast*, Cambridge, MA: Harvard University Press.

Green, Lisa. 2000. Aspectual BE-type constructions and coercion in African American English. *Natural Language Semantics* 8(1). 1–25. DOI: https://doi.org/10.1023/A:1008392112529

Greenberg, Yael. 2002. Two types of quantificational modalized genericity, and the Interpretation of bare plural and indefinite singular NPs. In Brendan Jackson (ed.), *Proceedings of SALT 12*, 104–123. Ithaca, NY: Cornell University. DOI: https://doi.org/10.3765/salt.v12i0.2871

Hacquard, Valentine. 2006. *Aspects of modality*. Cambridge, MA: MIT dissertation.

Hacquard, Valentine. 2009. On the interaction of aspect and modal auxiliaries. *Linguistics and Philosophy* 32. 279–312. DOI: https://doi.org/10.1007/s10988-009-9061-6

Heim, Irene. 1982. *The semantics of definite and indefinite noun phrases*. Amherst, MA: University of Massachusetts, Amherst dissertation.

Kleiber, Georges. 1987. *Du côté de la référence verbale: Les phrases habituelles*. Berne: Peter Lang.

Kratzer, Angelika. 1981. The notional category of modality. In Hans-Jürgen Eikmeyer & Hannes Rieser (eds.), *Words, worlds, and contexts – New approaches in word semantics*, 38–74. Berlin: Walter de Gruyter.

Kratzer, Angelika. 1995. Stage-Level and Individual-Level Predicates. In Gregory Carlson & Francis Jeffry Pelletier (eds.), *The generic book*, 125–175. Chicago, IL: The University of Chicago Press.

Kratzer, Angelika. 2008. On the plurality of verbs. In Johannes Dölling, Tatjana Heyde-Zybatow & Martin Schäfer (eds.), *Event structures in linguistic form and interpretation*, 269–300. Berlin: Mouton de Gruyter.

Krifka, Manfred, Francis Jeffry Pelletier, Gregory Carlson, Alice ter Meulen, Gennaro Chierchia & Godehard Link. 1995. Genericity: An introduction. In Gregory Carlson & Francis Jeffry Pelletier (eds.), *The generic book*, 1–124. Chicago, IL: The University of Chicago Press.

Laca, Brenda. 1990. Generic objects: some more pieces of the puzzle. *Lingua* 81. 25–46. DOI: https://doi.org/10.1016/0024-3841(90)90003-4

Landman, Fred. 2008. 1066: On the differences between the tense-perspective-aspect systems of English and Dutch. In Susan Rothstein (ed.), *Theoretical and crosslinguistic approaches to the semantics of aspect*, 107–166. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.110.06lan

Lawler, John. 1973. *Studies in English Generics*. Ann Arbor, MI: University of Michigan dissertation.

LeGrand, Jean. 1975. Or *and* any*: The syntax and semantics of two logical operators*. Chicago, IL: University of Chicago dissertation.

Lekakou, Marika. 2004. Middles as disposition ascriptions. In Cecile Meier & Matthias Weisgerber (eds.), *Proceedings of the Conference Sinn und Beudetung 8*, 181–196. Konstanz: University of Konstanz.

Lekakou, Marika. 2005. *In the middle, somewhat elevated: The semantics of middles and its crosslinguistic realization*. London: University College London dissertation.

Lenci, Alessandro. 1995. The semantic representation of non-quantificational habituals. In Pier Marco Bertinetto, Valentina Bianchi, James Higginbotham & Mario Squartini (eds.), *Temporal reference, aspect and sctionality, Vol. I: Semantic and syntactic perspectives*, 143–158. Torino: Rosenberg & Sellier.

Lenci, Alessandro & Pier Marco Bertinetto. 2000. Aspect, adverbs, and events: Habituality vs. perfectivity. In James Higginbotham, Fabio Pianesi & Achille Varzi (eds.), *Speaking of events*, 265–287. Oxford/New York: Oxford University Press.

Menéndez-Benito, Paula. 2005. *The grammar of choice*. Amherst, MA: University of Massachusetts, Amherst dissertation.

Menéndez-Benito, Paula. 2013. On dispositional sentences. In Alda Mari, Claire Beyssade & Fabio del Prete (eds.), *Genericity*, 276–292. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199691807.003.0010

Nickel, Bernard. 2010. Sharks and mosquitos, habits and capacities. Ms. Harvard University.

Prasada, Sandeep & Elaine M. Dillingham. 2005. Principled and statistical connections in common sense conception. *Cognition* 99. 73–112. DOI: https://doi.org/10.1016/j.cognition.2005.01.003

Quine, Willard Van Orman. 1960. *Word and object*. Cambridge, MA: MIT Press.

Rimell, Laura. 2004. Habitual sentences and generic quantification. In Chand Vineeta, Ann Kelleher, Angelo J. Rodríguez & Benjamin Schmeiser (eds.), *Proceedings of the West Coast Conference on Formal Linguistics* 2. 663–676. Somerville, MA: Cascadilla Press.

Ryle, Gilbert. 1949. *The concept of mind*. London: Penguin.

Scheiner, Magdalena J. 2002. Temporal anchoring of habituals. In Marjo van Koppen, Joanna Sio & Mark de Vos (eds.), *Proceedings of ConSole XI*. http://www.hum2.leidenuniv.nl/pdf/lucl/sole/console11/console11-scheiner.pdf.

Schubert, Lenhart & Francis Jeffry Pelletier. 1989. Generically speaking, or, using discourse representation theory to interpret generics. In Gennaro Chierchia, Barbara H. Partee & Raymond Turner (eds.), *Properties, types, and meaning, Vol. II: Semantic issues*, 193–268. Dordrecht: Kluwer. DOI: https://doi.org/10.1007/978-94-009-2723-0_6

Spector, Benjamin. 2003. Plural indefinite DP as plural-polarity items. In Josep Quer, Jan Schroten, Mauro Scorretti, Petra Sleeman & Els Verheugd (eds.), *Romance Languages and Linguistic Theory 2001*, 295–313. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/cilt.245.18spe

van Geenhoven, Verle. 2004. *For*-adverbials, frequentative aspect, and pluractionality. *Natural Language Semantics* 12(2). 135–190. DOI: https://doi.org/10.1023/B:NALS.0000031389.36427.af

Verkuyl, Henk. 1995. Indices and habituality. In Pier Marco Bertinetto, Valentina Bianchi, James Higginbotham & Mario Squartini (eds.), *Temporal reference, aspect and actionality, Vol. I: Semantic and syntactic perspectives*, 195–217. Torino: Rosenberg & Sellier.

Vogeleer, Svetlana. 2012. Habituals with indefinite singular objects: Aspect and modality. *Recherches linguistiques de Vincennes* 41. 191–214. DOI: https://doi.org/10.4000/rlv.2133

Xrakovskij, Victor S. (ed.) 1997. *Typology of Iterative Constructions* (LINCOM Studies in Theoretical Linguistics 04). München: LINCOM.

Zucchi, Sandro & Michael White. 2001. Twigs, sequences and the temporal constitution of predicates. *Linguistics and Philosophy* 24(2). 223–270. DOI: https://doi.org/10.1023/A:1005690022190