Responsible drivers and good passengers: the influence of subsective modification on nouns

A noun modified by a subsective adjective is standardly said to denote a subset of the unmodified noun's extension; ⟦skillful surgeon⟧ is a subset of ⟦surgeon⟧ (Siegel 1976, Kamp & Partee 1995). I argue that many subsective adjective-noun combinations actually denote a subset of the modifier's extension (e.g. ⟦skillful surgeon⟧ is a subset of ⟦skillful⟧). I derive these cases from a dyadic generic quantifier that situates the nominal in its restrictor and the adjective in its nuclear scope. This accounts for three novel generalizations regarding how subsective modifiers influence nouns:

1. Alteration of temporal properties: Stage-level nouns such as *passenger* have an existentially bound eventuality variable (Kratzer 1995). Under subsective modification, though, this eventuality variable is no longer existentially quantified, resulting in a characterizing sentence (1b).

(1) a. Esme is a passenger. *only holds while Esme is a passenger on a particular voyage*
b. Esme is a good passenger. *can hold when Esme is not a passenger on a particular voyage*

Chierchia (1995) proposes that individual-level predicates such as *dancer* occur in the nuclear scope of a generic eventuality quantifier. This results in a stative or habitual interpretation of the noun. Under subsective modification, though, i-level predicates can lose habituality entailments as in (2a). Negative subsective modifiers like *bad* or *clumsy* especially give rise to this effect as in (2b).

(2) a. Ellie is a ??(beautiful/good) dancer. It's a shame she doesn't dance more.
b. Bruce is a ??(bad/clumsy) dancer. No wonder he doesn't dance often.

2. Sortal interpretation of relational nouns: Many relational nouns are most natural with both of their arguments pronounced. In a null context, *brother* is odd without an overt relation named. However, with subsective modification, *brother* can occur without a second argument (3).

(3) Clark is a ??(good/bad) brother.

3. Nouns that denote inherent classes lack ambiguity: Under subsective modification, nouns that denote inherent classes (rather than functional or societal roles, see Zobel (2018)) have no ambiguous interpretation. Unlike *beautiful dancer*, there is no crisp distinction between describing a table as *good and a table* and *good as a table*. Furthermore, *good* can coerce a 'role' interpretation out of such nouns, in which the individual described need not belong to the class the nominal denotes as in (4).

(4) This box is a #(good) table. *under reading where the box is not canonically a table*

Prior research: Focusing on the ambiguity of *beautiful dancer*, Larson (1998) represented *dancer* as the agent of generic dancing events. Intersective *beautiful* applies to the individual (5a) while subsective *beautiful* applies to the event variable (5b).

(5) a. $[\![\, beautiful_{intersective}\ dancer \,]\!] = \lambda x\ .\ \mathrm{GEN}^C e[\mathbf{dance}(x)(e) \wedge \mathbf{beautiful}(x)]$
b. $[\![\, beautiful_{subsective}\ dancer \,]\!] = \lambda x\ .\ \mathrm{GEN}^C e[\mathbf{dance}(x)(e) \wedge \mathbf{beautiful}(e)]$

This analysis is hard to extend to nominals without morphologically transparent relations to verbs. I also argue that while similar, subsectively modified NPs are not equivalent to morphologically parallel VPs. *Responsible driver* can refer to someone who registers their license on time or changes their oil regularly. Meanwhile, *drives responsibly*, restricts the adverbial to modifying driving events.

(6) a. Sammy already registered her license. She's such a responsible driver.
b. ??Sammy already registered her license. She drives so responsibly.

Addressing this limit, Maienborn (2021) analyzes *beautiful dancer* using tropes (Moltmann 2004) and social roles (Zobel 2018). However, the ambiguity is pragmatically determined, which does not account for the grammatical influence of subsective modifiers on nouns shown in the data above. For example, this does not predict that subsective *beautiful dancer* does not entail habitual dancing.

Analysis: I use situations as a framework (Kratzer 2008). Nominal and adjectival predicates apply to an individual and a situation variable, which represents a part of a world at a time.

(7) a. $[\![\textit{dancer}]\!] = \lambda x \lambda s$. **dancer**$(x)(s)$ b. $[\![\textit{beautiful}]\!] = \lambda x \lambda s$. **beautiful**$(x)(s)$

To link subsective adjectives to nouns, I propose a dyadic generic quantifier over situations with a distinct restrictor and nuclear scope. This is achieved with an operator, [[AS]]. (I do not intend this as a general denotation for the English word 'as', though my data on class-denoting nouns overlaps with work by Zobel (2018) on *as*-phrases and role nouns, thus this is a fruitful area for future research.) In the restrictor, the nominal applies to a minimal situation s and an individual x. In the nuclear scope, a second minimal situation variable s' is existentially introduced, extending s to which the adjective applies. Typically, for minimal situations s in which x is a dancer, there is a minimal situation s' in which x is beautiful, and s extends to s'.

(8) $[\![\text{AS}]\!] = \lambda P_{\langle e,st\rangle} \lambda Q_{\langle e,st\rangle} \lambda x$. GEN$s[_{\text{R}} P(x)(s)][_{\text{NS}} \exists s'[Q(x)(s') \wedge s \leq s']]$

Using situations accounts for the difference between *responsible driver* and *drives responsibly*. By modifying situations of x being a driver instead of driving events by x, *responsible* can access situations related to a driver role that do not involve driving, such as registering a licence on time.

(9) $[\![\textit{responsible AS driver}]\!] = \lambda x$. GEN$s[_{\text{R}}$**driver**$(x)(s)][_{\text{NS}} \exists s'[$**responsible**$(x)(s') \wedge s \leq s']]$

AS also accounts for the i-level interpretation of s-level nouns. The GEN operator binds the situation variable of *passenger* before existential closure. Thus *passenger* contributes to an i-level NP.

(10) $[\![\textit{good AS passenger}]\!] = \lambda x$. GEN$s[_{\text{R}}$**passenger**$(x)(s)][_{\text{NS}} \exists s'[$**good**$(x)(s') \wedge s \leq s']]$

AS also accounts for why e.g. *clumsy dancer* does not entail habitual dancing. In the restrictor, *dancer* merely establishes the situations that are extended to situations of x being clumsy. It does not entail that there are typical situations of x being a dancer. I also assume quantifiers presuppose that their restrictors are not empty (see, e.g., Heim & Kratzer (1998)). Thus, (11) still must apply to an individual that is a part of at least one situation of being a dancer.

(11) $[\![\textit{clumsy AS dancer}]\!] = \lambda x$. GEN$s[_{\text{R}}$**dancer**$(x)(s)][_{\text{NS}} \exists s'[$**clumsy**$(x)(s') \wedge s \leq s']]$

This structure also explains the interpretations of *good table*. A table is an artifact (i.e. not a societal or functional role like 'driver'). It is defined by its inherent properties rather than its actions. Thus, if x is a table, every situation of x is a situation of being a table. In this case, *table* would be trivial in the restrictor of the quantifier. It would not actually restrict situations of x being good. Thus the truth conditions of subsective *good* would not differ from those of an intersective representation via Predicate Modification (Heim & Kratzer 1998). If x is not a table, *table* is coerced to mean 'functions as a table'. This would not always hold of x, so in this case, *good* serves as a non-trivial restrictor.

(12) $[\![\textit{good AS table}]\!] = \lambda x$. GEN$s[_{\text{R}}$**table**$(x)(s)][_{\text{NS}} \exists s'[$**good**$(x)(s') \wedge s \leq s']]$

A relational noun like *brother* requires less contextual support to leave its second argument unexpressed when it is in the restrictor of a quantifier. This can already be seen in characterizing sentences such as (13) (Carlson 1995). *AS* parallels this structure: in the restrictor of GEN, situations of x being a brother only restrict the conditions for situations in which x is good, as shown in (14). Less context is required to accommodate the unpronounced second argument.

(13) [[A brother shares his toys]] = GENy GENs $[_{\text{R}} \exists x :$ **brother**$(x)(y)(s)][_{\text{NS}}$**shares.his.toys**$(y)(s)]$

(14) $[\![\textit{good AS brother}]\!] = \lambda x$. GENs $\exists y[_{\text{R}}$**brother**$(y)(x)(s)][_{\text{NS}} \exists s'[$**good**$(x)(s') \wedge s \leq s']]$

Conclusion: A subsective adjective-noun combination denotes a subset of the adjective's extension, as it is the adjective that maintains its temporal, structural, and lexical properties while shifting those of the nominal it modifies. The dyadic generic operator I propose accounts for this theory. Using situations builds upon Larson (1998)'s event analysis by limiting the adjective to certain contexts set by the nominal, while also linking the adjective to the individual more directly. The novel observations also provide a unique perspective on additional areas of the grammar, such as relational nouns, artifact nouns, *as* phrases, and parallels between adjectives and adverbials.

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