Responsible drivers and good passengers: the influence of non-intersective modification on nouns[1]

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Abstract. A noun modified by a non-intersective adjective is standardly said to denote a subset of the unmodified noun's extension; ⟦skillful surgeon⟧ is a subset of ⟦surgeon⟧ (Siegel, 1976; Kamp and Partee, 1995). I argue that many non-intersective adjective-noun combinations actually denote a subset of the modifier's extension (e.g. ⟦skillful surgeon⟧ is a subset of ⟦skillful⟧). I define *quality adjectives* — adjectives that describe goodness or character traits specifiable by an identity — as a subclass of non-intersective modifiers and provide data to suggest these modifiers are centrally predicated while the nouns they modify restrict their context. I derive these cases from a dyadic generic quantifier over Kratzerian situations that situates the nominal in its restrictor and the adjective in its nuclear scope. This accounts for three novel generalizations regarding how certain quality modifiers influence nouns: quality modifiers alter the temporal properties of nouns, suppress the second argument of relational nouns, and resist nouns that reference species and natural classes.

Keywords: modification, adjectives, non-intersective, genericity, relational nouns, stage-level, individual-level, situations

1. Introduction

Adjectives can be classified as intersective or non-intersective (Siegel 1976; Kamp and Partee 1995; Larson 1998). An intersective adjective ascribes a property to an individual, and its denotation is not informed by the modified noun. For example, if Floyd is a blonde linguist and a singer, it is entailed that Floyd is a blonde singer, shown in (1). On the other hand, the meanings of non-intersective adjectives hinge on the head noun they modify. However, if Bertha is a skillful linguist and a singer, this does not entail that she is a skillful singer, shown in (2). In *skillful linguist*, the meaning of *skillful* is informed by *linguist*.

	Floyd is a blonde linguist.	
(1)	Floyd is a singer.	*(intersective)*
	→ Floyd is a blonde singer	

	Bertha is a skillful linguist.	
(2)	Bertha is a singer.	*(non-intersective)*
	↛ Bertha is a skillful singer.	

Intersective adjectives can be assigned an interpretation via Heim and Kratzer 1998's Predicate Modification rule. In example (1), *blonde* and *linguist* would each apply to *Floyd* without influencing the meaning of one another. However, a denotation for non-intersective adjectives is less straightforward. It is unclear how *skillful* can access the meaning of *linguist*—compositionally or pragmatically—and either way, what its denotation would need to look like.

There are many flavors of non-intersective adjectives that have different semantic effects and require different analyses (see Morzycki 2016 for an overview). This research focuses on a subclass of non-intersective modifiers which I will call 'quality adjectives'. These include adjectives that fall on a scale of goodness or badness like in (3). They do not specify the dimension on which this property holds, but this can be informed by the noun it modifies.

(3) Howard is a $\left\{\begin{array}{l} \text{good} \\ \text{great} \\ \text{bad} \\ \text{horrible} \end{array}\right\}$ skateboarder.

Quality adjectives also include modifiers that reference a character trait specifiable by an identity, shown in (4).

(4) Bertha is a $\left\{\begin{array}{l} \text{kind} \\ \text{strict} \\ \text{fair} \\ \text{caring} \end{array}\right\}$ teacher.

One diagnostic to identify a quality adjective is whether it fits into the frame: *x is ADJ in the way x is a NOUN*. This is shown in examples (5) and (6) below.[2]

(5) Howard is $\left\{\begin{array}{l} \text{good} \\ \text{great} \\ \text{bad} \\ \text{horrible} \end{array}\right\}$ in the way he is a skateboarder.

(6) Bertha is $\left\{\begin{array}{l} \text{kind} \\ \text{strict} \\ \text{fair} \\ \text{caring} \end{array}\right\}$ in the way she is teacher.

Quality adjectives are also ambiguous — they allow non-intersective and intersective interpretations (Siegel, 1976; Larson, 1998). Larson presents the example *beautiful dancer*, shown in (7a). This has the meaning that Bertha is *pretty and a dancer* (intersective) as well as the

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[2]There's admittedly an oddness to the examples in (5). I attribute this to competition with the phrase *skateboards well* for example. Importantly, though, the sentences in (5) sound more natural in this frame than standardly intersective modifiers do, as in (ia) and other types of non-intersective modifiers — such as temporal (Gehrke and McNally, 2015), privative (Partee and Borschev, 1998), and relational (McNally and Boleda, 2004) adjectives — do, as in (ib).

(i) a. Howard is $\left\{\begin{array}{l} \text{tall} \\ \text{blonde} \\ \text{Canadian} \end{array}\right\}$ in the way he is a skateboarder.

   b. Howard is $\left\{\begin{array}{l} \text{occasional} \\ \text{pretend} \\ \text{professional} \end{array}\right\}$ in the way he is a skateboarder.

The awkwardness of the quality modifiers in (5) compared to those in (6) is nonetheless notable and perhaps suggests a further grammatical distinction between the two. I treat them as one category for now as they share the same effects on nominals, as is to be discussed in this paper, though exploring this distinction is a fruitful area for future research.

interpretation that she *dances beautifully* (non-intersective). Martin (2018) provides the additional example *good thief*, shown in (7b). This has the interpretation that Bertha is a moral thief (intersective) and the interpretation that she is good at stealing (non-intersective).

(7)   a.   Bertha is a beautiful dancer.
        b.   Bertha is a good thief.

Prior analyses of the ambiguity of non-intersective modifiers fall into two main classes: analyses that place weight on the noun (N-analysis) and analyses that place weight on the adjective (A-analysis). Larson (1998) influentially presents an N-analysis: *beautiful* maintains its meaning across both interpretations. *Dancer* is represented with dancing events. The ambiguity of the expression hinges on whether *beautiful* applies to an individual (intersective) or an event (non-intersective). Therefore, a non-intersective modifier's ability to be accessed by its head noun is enabled by a more complex representation of the head noun, as opposed to the adjective. Maienborn (2021), on the other hand, argues that the ambiguity lies within the representation of the adjective. *Dancer* remains a nominal property under both interpretations, while the denotations for *beautiful* and other quality adjectives serve as predicate modifiers with the use of tropes (Moltmann, 1997) and pragmatic context. Both of these frameworks have laid crucial groundwork for ways to think about this puzzle, but the data presented here require a closer look at the empirical picture. As opposed to honing in on the case of *beautiful dancer*, namely the ambiguity of *beautiful*, I examine on a broader level how all quality modifiers influence the interpretations of their head nouns. I introduce into the analytical picture three novel observations. Non-intersective quality adjectives...

- alter the temporal properties of nominals.

- facilitate a sortal interpretation of relational nouns.

- lack ambiguity when modifying class nouns.

On the backbone of these empirical observations, I present an analysis that ultimately treats *beautiful dancer* as *beautiful as a dancer* via a silent operator, AS. In line with Larson, it uses a genericity operator to account for the influence on stage-level nouns and relational nouns. At the heart of this analysis is the idea that non-intersective quality adjectives are not actually non-intersective–at least not in the way that has been previously discussed. Rather than *beautiful dancer* denoting a subset of dancers, I propose that *beautiful dancer* narrows the context of an individual's being beautiful.

2. Temporal properties

When a stage-level noun is modified by an individual-level quality adjective, the full NP is individual-level. I adopt Chierchia (1995)'s definition of stage- and individual-level predicates, which builds upon Kratzer (1995). Stage-level predicates contain existentially bound eventuality variables that reference spaciotemporal properties. Meanwhile individual-level predicates contain generically bound eventuality variables, thus they hold of an individual regardless of location or time. A stage-level noun like *passenger*'s extension hinges on the external situation

of the individual it applies to, shown in example (8).

(8)   Floyd is a passenger.   *(only holds while Floyd is a passenger on a particular voyage)*

Meanwhile, many quality adjectives such as *polite* and *annoying* are individual-level because they hold of an individual over time. If a stage-level noun is modified by an individual-level quality adjective, the full NP will be individual-level, taking on the properties of the adjective, as shown in (9).

(9)   Floyd is a $\left\{ \begin{array}{l} \text{good} \\ \text{annoying} \\ \text{polite} \end{array} \right\}$ passenger.

           (can hold when Floyd is not a passenger on a particular voyage)

Quality adjectives can also alter the generic readings of nouns. Many nouns entail that an individual performs an action professionally or at least habitually. In the sentences in (10), *dancer*, *singer*, and *photographer* are most naturally taken to reference a career or a regular hobby that the individual has.

(10)   a.   Floyd is a dancer.
              → Floyd dances professionally or often.
        b.   Clyde is a singer.
              → Clyde sings professionally or often.
        c.   Bertha is a photographer.
              → Bertha takes photos professionally or often.

However, this entailment is lost when these nouns are modified by quality adjectives. Instead it is the adjective that is habitual or generic. The noun then serves as a restriction for the adjective. It is possible to be a beautiful dancer without professionally or regularly dancing, shown in (11a). This effect especially surfaces when the quality adjective is negative. If someone is a clumsy dancer, then it's likely that they don't dance regularly, shown in (11b).

(11)   a.   Ellie is a $\left\{ \begin{array}{l} \text{beautiful} \\ \text{great} \end{array} \right\}$ dancer. It's a shame she doesn't dance more.

        b.   Bruce is a $\left\{ \begin{array}{l} \text{bad} \\ \text{clumsy} \end{array} \right\}$ dancer. No wonder he doesn't dance often.

This effect also enables using certain agentive nominals under quality modification, which would independently be infelicitous like the examples in (12a) and (12b) or have drastically different meanings like the sentence in (12c). While *good listener* and *good kisser* are common phrases, the meaning of *listener* or *kisser* is less clear, especially without supporting context. Meanwhile, describing someone as a *driver* unmodified suggest this is their career, while a *bad driver* can easily describe anyone who has ever driven, regardless of their career.

(12)   a.   Floyd is a ?? $\left(\left\{ \begin{array}{l} \text{good} \\ \text{bad} \\ \text{thoughtful} \end{array} \right\} \right)$ listener

        b.   Clyde is a ?? $\left(\left\{ \begin{array}{l} \text{good} \\ \text{bad} \\ \text{passionate} \end{array} \right\} \right)$ kisser.

c. Bertha is a ?? $\left(\left\{ \begin{array}{l} \text{good} \\ \text{bad} \\ \text{fast} \end{array} \right\} \right)$ driver.

Maienborn (2021) brings up *fair loser* as counter-evidence to Larson (1998). A *fair loser* is not someone who loses fairly, but who acts in a fair or polite manner when they lose. Furthermore, these phrases do not classify an individual as a 'loser' at all. Rather they classify the individual as *fair*, the adjective, while *loser* contextualizes its dimension. The sentence in (13a) does not entail that Floyd is a loser or regularly loses. *loser* merely establishes context for situations in which Floyd acts *fair*. Like the examples in (12), the meaning of *loser* also drastically shifts without quality modification, shown in (13b). It either means Floyd is a unsuccessful person (likely derived from a *habitually loses* interpretation) or there is unspecified contexts that eliminate the generic interpretation (e.g. *Floyd is a loser of the game we played*).

(13)   a.   Floyd is a fair loser.
      b.   Floyd is a loser.

This effect also surfaces in the verbal domain. Larson highlights that *beautiful dancer* can be paraphrased as *dances beautifully*. While I ultimately argue these phrases are not fully truth-conditionally equivalent, he raises the important point that *dances* parallels the restrictor behavior of *dancer*. *Dances* in examples (14a) and (15a) encodes habitual dancing events. Thus follow-up sentences that contradict this habituality sound strange. However, *dances beautifully* does not entail habitual dancing events—it only means that when an individual dances, their dancing is beautiful. Thus the sentences in (14b) and (15b) sound natural.

(14)   a.   ??Floyd dances. It's a shame he doesn't dance more.
      b.   Floyd dances beautifully. It's a shame he doesn't dance more.

(15)   a.   ??Wow, Clyde dances! I can't believe he's never tried dancing before.
      b.   Wow, Clyde dances beautifully! I can't believe he's never tried dancing before.

A summary of the data so far is: if a stage-level noun is modified by an individual-level quality adjective, the full NP will be individual-level. If a noun entails a habitual or professional action, modification by a quality adjective may eliminate this entailment—instead the adjective will have a habituality entailment. A common theme among these effects is that the properties of the quality adjectives survive while those of the noun are suppressed.

3. Relational nouns

Quality modifiers facilitate a sortal interpretation of relational nouns. Some relational nouns sound most natural with both of their arguments pronounced. The sentence in (16c) isn't necessarily ungrammatical, but it's odd to say out of the blue—especially on the intended *brother of someone* reading.

(16)   a.   Clyde is Floyd's brother.
      b.   Clyde is a brother of Floyd's.
      c.   #Clyde is a brother.

With quality modification, these relational nouns sound more natural without their second argu-

ment pronounced. The sentence in (17) does not require special context—it's a normal way to describe an individual, and it maintains a generic interpretation that the Clyde is a good brother *to someone*.

(17) Clyde is a $\left\{ \begin{array}{l} \text{good} \\ \text{responsible} \\ \text{caring} \\ \text{kind} \end{array} \right\}$ brother.

Furthermore, if a second argument is to be introduced with quality modification, the preposition changes. Unmodified, brother's second argument is introduced with genitive *of*, shown in (18a). However, to introduce a second argument to *kind brother*, using *to*, shown in (18b). This is also notably a preposition that *kind* selects for independently, shown in (19).

(18) a. Floyd is a brother $\left\{ \begin{array}{l} \text{of} \\ \text{??to} \end{array} \right\}$ Floyd

  b. Clyde is a kind brother $\left\{ \begin{array}{l} \text{??of} \\ \text{to} \end{array} \right\}$ Floyd

(19) Clyde is kind to Floyd.

The generic influence of quality modifiers on relational nouns also extends beyond kinship terms. For example, Partee and Borschev (1999) analyze nominals modified by *favorite* as relational, as they require a possessor. The meaning of *favorite* inherently links a favored individual *to* a second individual. As a result, *favorite movie* sounds odd without an overt possessor (20). Furthermore, the easiest accommodation of the form without the second argument is that *Back to the Future* is a favorite movie of a certain person/around here, which eliminates a generic interpretation and contains a specific implicit possessor.

(20) *Back to the Future* is $\left\{ \begin{array}{l} \text{??a} \\ \text{Floyd's} \end{array} \right\}$ favorite movie.

However, when *favorite movie* is modified by a quality adjective, it easily allows for an unpronounced second argument, which clearly has a generic reading. The sentence in (21) means that *Back to the Future* is a good/bad/valid favorite movie for someone *to have* in general. There is no specific possessor mapped onto the nominal.

(21) *Back to the Future* is a $\left\{ \begin{array}{l} \text{good} \\ \text{bad} \\ \text{valid} \end{array} \right\}$ favorite movie.

A final point of relevance touches again on the parallel between nominals modified by adjectives and habitual verbs modified by manner adverbials. Relational nouns have long been compared to transitive verbs as they share a two-place argument structure (e.g., Partee and Borschev, 1999). Like relational nouns, a generic reading of a two-place predicate, such as *kiss*, with only one pronounced argument sounds strange without strong contextual support. *Floyd kisses* sounds odd on its own (22a), just as *Floyd is a brother* does. However, modifying *kisses* with a manner adverbial, such as *passionately*, eases the interpretation, shown in (22b).

(22) a. ??Floyd kisses.

b. Floyd kisses $\left\{ \begin{array}{l} \text{passionately} \\ \text{badly} \\ \text{sloppily} \end{array} \right\}$.

The effects seen here also resemble Condoravdi (1989)'s observation about middle constructions. She notes that middles without adverbial modification sound strange, as in (23). Meanwhile manner adverbs improved the accessibility of their readings, shown in (24). The effect of these adverbs led her to hypothesize that the adverbs serve as the main predication in the clause; not the verb.

(23)   a. #This book reads.
       b. #This bread cuts.

(24)   a. This book reads easily.
       b. This bread cuts well.

Though I ultimately argue that agentive nouns, such as *kisser*, and habitual verbs, such as *kisses* are not truth conditionally equivalent, their influence under adjectival and adverbial modification show striking parallels in their interpretations, especially with an unpronounced second argument, which would suggest some overlap in their semantic analyses.

4. Class nouns

As discussed in the introduction, quality adjectives have intersective and non-intersective interpretations. In example (25), *good thief* could mean *moral thief* or *good at stealing*. However, quality modifiers are not ambiguous in every context. In example (26), *good person* is not ambiguous. There is no crisp distinction between the meanings of *good and a person* and *good as a person*.

(25)   Bertha is a good thief.
       a. Bertha is a good person and a thief.   *(intersective)*
       b. Bertha is good at being a thief.   *(non-intersective)*

(26)   Bertha is a good person.
       a. Bertha is a good person and a person.   *(intersective)*
       b. Bertha is good at being a person.   *(non-intersective)*

This observation extends to the generalization that nouns that involve specific actions or functions allow non-intersective modification by quality adjectives. Meanwhile, nouns that reference species or inherent classes do not allow for a non-intersective interpretation of quality adjectives. This remains relevant in exceptional cases when *good as a person* has a distinguished meaning from the intersective interpretation. For example, a coercible non-intersective interpretation of the sentence in (26) is that Bertha is an alien or robot who resembles a person well.[3] This is the case because *person* in this context no longer references Bertha's species, but rather a role that she is imitating as a non-person.

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[3]The predicate *makes* especially encourages this interpretation, as shown in (i).
(i)   Bertha makes a good person.

This contrast between nominals parallels observations in Zobel (2017)'s discussion of role nouns: *Class nouns* are defined by their inherent characteristics (e.g. *person*, *cactus*) while *role nouns* have actions associated with them (e.g. *thief*, *dancer*). This analytical intuition is supported by empirical observations that interface with modification. For example, Zobel highlights that in languages such as Dutch and German, many role nouns occur without indefinite determiners in predicative position.[4] This is seen in examples (27) and (28) for German.

(27) Floyd ist (*ein) Architekt. (28) Floyd ist *(ein) Mann.
      Floyd is architect   Floyd is (INDF.DET) man
      'Floyd is an architect'   'Floyd is a man'

Furthermore, the interpretation of class nouns without a determiner classifies the individual as having characteristics aligning with properties of the nominal predicate, as opposed to belonging to its inherent class. For example, predicating *Mann* without an indefinite determiner means that Floyd acts like a stereotypical man as opposed to merely biologically being one.

(29) Floyd ist Mann. (30) Floyd ist ein Mann.
      Floyd is man   Floyd is INDF.DET man
      'Floyd is manly/Floyd acts like a man.'   'Floyd is a man.'

The contrast between *ist Mann* and *ist ein Mann* maps well onto the intersective and coerced non-intersective (i.e. alien) reading of *good person*. In German, there exists a grammatical distinction in predicative position between being biologically classified as a man and resembling one. The former is expressed with a determiner, while the latter is expressed as a bare noun. In English, this same 'role' or resemblance interpretation of a class noun like *person* can be brought out with a quality modifier like *good*. While intersective modifiers like in (31) do not provide context that an individual resembles the traits of the head noun (rather, that inherently possessing them), quality modifiers allow a conceivable context in which the individual's skill level at resembling the nominal is expressed, as shown in (32).[5]

(31) Greta is/*makes a $\left\{ \begin{array}{c} \text{tall} \\ \text{blonde} \\ \text{young} \end{array} \right\}$ person.   *entails: Greta is a person*

(32) Greta is/makes a $\left\{ \begin{array}{c} \text{good} \\ \text{bad} \\ \text{decent} \end{array} \right\}$ person.   *Greta could be a robot imitating a person.*

This observation extends to the modification of artifacts. Zobel gives the sentence in (33) as an example of inanimate objects potentially being able to be represented with roles. The piece of wood is not prototypically a paddle, but it functions as one in the context provided. I observe that a crucial component of this interpretation is the modifier *good*. Without it, the sentence sounds odd and *paddle* loses its function interpretation, shown in (34).

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[4]The general pattern of certain nominals lacking determiners in predicative position is cross-linguistically robust beyond German and Dutch. However, the exact constraints are lexically idiosyncratic. See De Swart et al. (2007); Geist (2014) for additional data and discussion.

[5]*Makes* is also infelicitous when the following nominal is only intersectively modified, as shown in (31). Though the semantics of *makes* is beyond the scope of this paper, it appears to only be licensed under certain quality modifiers, pointing to a further compositional difference between the two adjective types.

(33)   Unfortunately, we only had a piece of wood to steer the boat. It was a **good paddle**, though.

(34)   Unfortunately, we only had a piece of wood to steer the boat. ??It was a **paddle**, though.

Zobel (2017) additionally discusses the importance of restrictive role *as*-phrases, building on research from Landman (1989) and Moltmann (1997). She observes that only role nouns can occur in *as*-phrases with the interpretation *in their role as*. For example, in sentence (35) *as a man* can mean *because he is a man*, but it lacks the interpretation that Floyd earns this amount by fulfilling his role as a man. This contrasts *as a judge* in sentence (36), which can mean that Floyd makes 3000 Euros through being a judge.

(35)   #Floyd makes 3000 Euros as a(n) $\left\{ \begin{array}{l} \text{man} \\ \text{person} \\ \text{adult} \end{array} \right\}$.

(36)   Floyd makes 3000 Euros as a $\left\{ \begin{array}{l} \text{janitor} \\ \text{teacher} \\ \text{judge} \end{array} \right\}$.

Makes 3000 Euros functions well as a predicate that selects for certain roles because earning money requires a career, thus it is most compatible with restrictive role *as*-phrases that contain a career-denoting nominal or one that can be coerced as such. Quality adjectives also function well as predicates that select for roles under Zobel's framework. For example, *kind*, can be related to a specific identity one holds, as shown in (37). Conversely, *tall*, an intersective modifier, sounds odd with restrictive role *as*-phrases, as in (38).

(37)   Greta is kind as a $\left\{ \begin{array}{l} \text{sister} \\ \text{teacher} \\ \text{judge} \end{array} \right\}$.   (38)   ??Greta is tall as a $\left\{ \begin{array}{l} \text{sister} \\ \text{teacher} \\ \text{judge} \end{array} \right\}$.

Quality modifiers like *kind* followed by restrictive-role *as*-phrases have a similar, if not truth-conditionally equivalent, meaning to the non-intersective interpretation of a noun attributively modified by the same adjective. For example, a paraphrase of the non-intersective interpretation of *kind judge* is *kind as a judge*, as has been noted by e.g. Landman (1989); Moltmann (1997).

Though my analysis does not commit to role variables in the ontology as Zobel 2017's does, this overlap in data between role nouns and modification illustrates the importance of the context the nominal provides in these structures. While Zobel focuses on the properties of these nominals, I highlight the overlap of 'role-sensitive' predicates and quality adjectives — both are only compatible with certain nominals.

5. Data summary

I have shown that quality adjectives grammatically influence the nominals they modify. Firstly, they alter the temporal properties of the noun. If the noun is stage-level and the quality adjective is individual-level, the full NP will be individual-level, as in the case of *good passenger*. If the noun entails a habitual action, quality modification can eliminate this entailment, as *clumsy*

does for *clumsy dancer*. Next, quality adjectives facilitate a sortal interpretation of relational nouns. If a relational noun sounds odd without its second argument pronounced, quality modification will make this reading more salient, as *kind* does in *kind brother*. Lastly, they lack a non-intersective interpretation when modifying 'class nouns' — nouns that denote biological classes or species. Thus *good person* only has a salient non-intersective interpretation if the individual it applies to is not a person but instead good at resembling one.

These data points suggest an analysis for quality adjectives that shifts the modified noun's semantics to discount its temporal and argument structure information. I ultimately situate the nominal in the restrictor clause of a generic operator to account for this effect, but first discuss prior literature in this domain.

6. Prior research

Earlier work analyzing quality adjective *beautiful* in *beautiful dancer* generally falls into two categories: one that establishes the link between the nominal and modifier by decomposing the nominal and maintaining the denotation of the adjective across both interpretations (an N-Analysis Larson, 1998) and one that links the modifier to the nominal by representing non-intersective *beautiful* differently across the two interpretations while maintaining the meaning of *dancer* (an A-Analysis Maienborn, 2021).

A caveat to this discussion is that quality adjectives are not a well-established sub-category of non-intersective modification. Thus, the authors discussed handle in part quality adjectives but aim to account for different, wider sets of non-intersective adjectives in their ultimate proposals. For example, Larson (1998) extends his analysis to *old friend*, which is not an example of quality modification. Maienborn (2021) handles *trained* in her analysis, which also is not a quality modifier. Both cases fail the *way* diagnostic, shown in (39).

(39)   a.   #Floyd is old in the way he is a friend.
        b.   #Eloise is trained in the way she is a dancer.

6.1. N-Analysis

Larson (1998) teases apart the ambiguity of *beautiful dancer* by decomposing *dancer* as an agent of dancing events that are typical in a context, C (40). There is an event variable, e, accessible as well as an individual variable, x; both can be modified by *beautiful*.

(40) $[\![\text{dancer}]\!] = \lambda x \,.\, \text{GEN}^C e[\textbf{dance}(x)(e)]$

Beautiful can apply to events as well as individuals, shown in (41).

(41) $[\![\text{beautiful}]\!] = \lambda \alpha \,.\, \textbf{beautiful}(\alpha)$
        $\alpha \in x, e$

Intersective *beautiful* applies to the individual, x, shown in (42a), while non-intersective *beautiful* applies to the event, e, shown in (42b). *Beautiful* maintains its meaning across both readings, while the ambiguity is enabled by breaking down the representation of *dancer*.

(42)   a. $[\![\text{beautiful dancer}]\!]_{\text{INT}} = \lambda x \,.\, \text{GEN}^C e[\textbf{dance}(e)(x) \wedge \textbf{beautiful}(x)]$
        b. $[\![\text{beautiful dancer}]\!]_{\text{NI}} = \lambda x \,.\, \text{GEN}^C e[\textbf{dance}(e)(x) \wedge \textbf{beautiful}(e)]$

The merits of this analysis are firstly its simplicity. It avoids polysemy while aligning with the intuition and morphological evidence that *beautiful dancer* comes close to the meaning *dances beautifully*. I additionally argue the use of a generic operator is significant beyond binding the event variable in *dancer*. Incorporating genericity into the denotation of non-intersective modification supports its influence on stage-level predicates as well as its parallels in behavior with generic verb forms. This analytical choice supports, for example, the individual-level interpretation of *passenger*. Under a generic operator, instead of an existential quantifier, *passenger* would not be linked to a specific context.

While it is a less commonly referenced part of his paper, Larson (1998) additionally discusses the merits of situating the noun *dancer* in the restrictor clause of the operator, while the adjective *beautiful* occurs in the nuclear scope, as shown in (43b).

(43)   a. $[\![\text{beautiful dancer}]\!]_{\text{INT}} = \lambda x \,.\, GEN^C e[\textbf{dance}(e)(x) \wedge \textbf{beautiful}(x)]$
        b. $[\![\text{beautiful dancer}]\!]_{\text{NI}} = \lambda x \,.\, GEN^C e[\textbf{dance}(e)(x)][\textbf{beautiful}(e)]$

This analytical move extends the parallels between non-intersectively modified agentive nominals, such as *beautiful dancer* and their morphological counterparts of habitual verbs modified by adverbials, such as *dances beautifully* beyond their shared lexical roots. The positioning of *beautiful(ly)* in the nuclear scope of the quantifier while *dance(r)* serves as the restrictor points at a deeper connection in the grammar — in both cases, the main predicate applied to the individual is the predicate modifier, *beautiful(ly)*, while the noun and verb, *dance(r)*, serve to establish supplementary context. Such a compositional structure will also come to bear relevance on the influence of quality modifiers on stage-level and relational nouns, as discussed in Sections 2 and 3.

At the same time, Larson himself acknowledges that this analysis struggles to extend to nominals without morphologically transparent relations to verbs or conceptually clear notions of events. For example, *just king* is an example of non-intersective modification, but there is no morphologically transparent verbal form of *king* or adverbial form of *just*. Defining *king* events present conceptual challenges, as this notion is less well defined in our world than *dance* events.

(44)   a.   Floyd is a just king.
        b.   ??Floyd kings justly.

Maienborn (2021) also raises issues of a mismatch in meaning between quality modified deverbalized nouns and their verbal counterparts modified by adverbs. To be a *fair loser* is not truth-conditionally equivalent to *loses fairly* (45). The meaning of the quality adjective in this context relates more closely to the characterization of the individual as a loser, as opposed to merely their losing events. Thus even deverbalized nouns modified by adjectives do not always fully map in meaning to their adverbially modified verbal counterparts.

(45)   Floyd is a fair loser. $\neq$ Floyd loses fairly.

I push this argumentation a step further: even *beautiful dancer* and *dances beautifully* are not semantically equivalent. While the non-intersective interpretation of *beautiful* prevents it from modifying an individual's physically appearance overall, it can modify an individual's

physical appearance related to their identity as a dancer. For example, *beautiful dancer* can refer to someone who looks beautiful in a dance costume but who does not necessarily dance beautifully, shown in (46a), while *dances beautifully* exclusively refers to dancing events, hence the oddness of the dialogue in (46b).[6]

(46) a. A: Bertha looks so stylish in that dance costume.
          B: I know, she's such a beautiful dancer!
      b. A: Bertha looks so stylish in that dance costume.
          B: ??I know, she dances so beautifully!

This distinction can be seen more clearly with quality modifiers that are morphologically derived from subject-oriented adverbials, such as *responsible/responsibly*.[7] A *responsible driver* can refer to someone who registers their license on time or changes their oil regularly without actually involving their driving events as in (47a). Meanwhile, in *drives responsibly*, the adverbial is restricted to modifying driving events, not events associated with a driver identity that do not involve actual driving, shown in (47b).

(47) a. Clyde already registered his license. He's such a responsible driver.
      b. ??Clyde already registered his license. He drives so responsibly.

Ultimately, Larson's N-Analysis of non-intersective modification illuminates important connections within the English grammar between the modification of the NP and VP, including genericity and restrictor/nuclear scope relations under quantification. However, his analysis cannot distinguish subtle differences in meaning between quality adjectives and adverbials.

6.2. A-Analysis

On the other end of the spectrum is Maienborn (2021)'s analysis which teases apart the ambiguity of *beautiful dancer* in the representation of *beautiful*. She starts off with the crucial assumption that there are no 'non-intersective' adjectives, in the sense that neither representation of *beautiful dancer* requires a compositional breakdown of the noun, as Larson's representation did. While 'non-intersective' *beautiful* modifies the individual's dancing, 'intersective' *beautiful* modifies the individual's physical appearance. Both of the modified nouns (physical appearance and dancing) are 'properties' of the individuals. To cash this out, Maienborn uses tropes (Moltmann, 1997), which Maienborn defines as particularized properties within their bearer (the individual). Under both interpretations of *beautiful dancer*, *beautiful* applies to a trope, r, of an individual, x. The denotation in (48) essentially says that a property r of an individual x is beautiful.

(48) $[\![\text{beautiful}]\!] = \lambda x_{\text{ENTITY}} \, . \, \textbf{bearer}(x, r_{\text{TROPE}}) \wedge \textbf{beautiful}(r)$

Acknowledging some merits of Larson's analysis, she represents deverbalized nouns, such as

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[6]When *beautiful* describes physical appearance, it is naturally associated with an intersective interpretation (i.e. *x is beautiful and x is a dancer*). I argue however, that the context described is a usage of non-intersective *beautiful* because the individual's physical beauty is constrained to their dancing identity.

[7]I define subject-oriented adverbs as adverbs that are sensitive to properties of the subject and give rise to entailments involving it, as discussed by e.g. McConnell-Ginet (1982); Jackendoff (1972); Wyner (1994); Morzycki (2016).

dancer, with an event variable e that is related to a trope variable r via a function **manifest**. The definition of this trope is represented as the property of being a dancer.

(49) $[\![\text{dancer}]\!] = \lambda x \, . \, \exists r \text{GEN} e[\textbf{bearer}(r', x) \wedge \textbf{manifest}(r', e) \wedge \textbf{dance}(e) \wedge \textbf{agent}(e, x)]$

The trope of the individual that comes to be modified by *beautiful* (e.g. physical appearance, being a dancer) is pragmatically informed by the discourse context. For intersective *beautiful dancer*, *beautiful*, the individual's trope, r is set to the physical appearance of x, shown in (50a). In the case of 'non-intersective' *beautiful dancer*, *beautiful* applies to the dancing role established as a trope within x, shown in (50b). However, neither denotation is truly non-intersective. In both cases, *beautiful* applies to a trope of the individual regardless. Whether or not it is a dancer trope is not compositionally informed.

(50) a. $[\![\text{beautiful dancer}]\!]_{\text{INT}} = \lambda x \text{GEN} e[\textbf{bearer}(r', x) \wedge \textbf{manifest}(r', e) \wedge \textbf{dance}(e)$
$\wedge \, \textbf{agent}(e, x) \wedge \textbf{bearer}(r, x) \wedge \textbf{beautiful}(r) \wedge r = \textbf{phys-appearance}(x)]$

b. $[\![\text{beautiful dancer}]\!]_{\text{NI}} = \lambda x \exists r' \text{GEN} e[\textbf{bearer}(r', x) \wedge \textbf{manifest}(r', e) \wedge \textbf{dance}(e)$
$\wedge \, \textbf{agent}(e, x) \wedge \textbf{beautiful}(r')]$

Maienborn's trope analysis for 'non-intersective' *beautiful* modifies a property related to the dancing events without directly modifying the dancing events, which accounts well for the interpretation of subject-oriented modifiers, such as *fair loser*. However, its reliance on pragmatics fails to account for the grammatical influence of non-intersective modifiers on different nominals. For example, the representations of *beautiful dancer* in (50a) and (50b) do not predict that only the intersective interpretation would entail a habitual reading of *dancer*, while the non-intersective interpretation could be said if the individual did not dance regularly. The only difference between 'non-intersective' *beautiful dancer*, and intersective *beautiful dancer* is the final conjunct, and neither relates to the regularity of the dancing events. This analysis also does not predict the facilitated interpretation of relational nominals with an unpronounced second argument. Ultimately I argue for an analysis guided more heavily by patterns and less reliant on pragmatics than Maienborn, while adding to the complexity of Larson's account for subtle differences in meaning between deverbalized nouns and their verbal counterparts using situations.

7. Analysis

I use situations as a framework (Kratzer, 2007). Nominal and adjectival predicates apply to an individual and a situation variable, which represents a part of a world at a time.

(51) a. $[\![\text{dancer}]\!] = \lambda x \lambda s \, . \, \textbf{dancer}(x)(s)$
b. $[\![\text{beautiful}]\!] = \lambda x \lambda s \, . \, \textbf{beautiful}(x)(s)$

To link quality adjectives to nouns, I propose a dyadic generic quantifier with a distinct restrictor and nuclear scope. This is achieved with an operator, $[\![\text{AS}]\!]$.[8] 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. Typ-

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[8] 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 (2017) on *as*-phrases and role nouns, thus this is a fruitful area for future research.

ically, for minimal situations s in which x is a dancer, there is a minimal situation s' in which x is beautiful, and s minimally extends to s'.

(52) $[\![\text{AS}]\!] = \lambda P_{\langle e,st \rangle} \lambda Q_{\langle e,st \rangle} \lambda x . \text{ GEN } s[P(x)(s)][\exists s'[Q(x)(s') \wedge s \leq_{\min} s']]$

The intersective interpretation of quality adjectives lack an AS operator and is derived by Heim and Kratzer (1998)'s Predicate Modification rule. The nominal and adjectival situations are not connected to one another.

(53) $[\![\text{good thief}]\!]_{INT} = \lambda x . \text{ GEN } s[s \in C][\mathbf{thief}(x)(s)] \wedge \text{GEN } s'[s' \in C][\mathbf{good}(x)(s')]$

Meanwhile, under the non-intersective interpretation, the nominal situations minimally extend to the adjectival situations.

(54) $[\![\text{good AS thief}]\!]_{NI} = \lambda x . \text{ GEN } s[\mathbf{thief}(x)(s)][\exists s'[\mathbf{good}(x)(s') \wedge s \leq_{\min} s']]$

Responsible driver can describe someone who registers their license or fills their gas tank responsibly because driver situations encompass contexts that do not involve driving events. Therefore, these situations are able to restrict an individual's situations of being responsible.

(55) $[\![\text{responsible AS driver}]\!] = \lambda x . \text{ GEN } s[\mathbf{driver}(x)(s)][\exists s'[\mathbf{responsible}(x)(s') \wedge s \leq_{\min} s']]$

Meanwhile, under a standard Davidsonian representation, *drives responsibly* only includes event modification. *Responsible* modifies an individual's driving — not the way in which they are a driver.

(56) $[\![\text{drives responsibly}]\!] = \lambda x . \exists e[\mathbf{drive}(e,x) \wedge \mathbf{responsible}(e)]$

The application of AS to nominals that would be stage-level unmodified in predicative position, also accounts for their individual-level interpretation. Chierchia (1995) analyzes stage-level nouns using eventuality variables that are existentially bound via a higher functional head. I adapt his analysis to situations, shown in (57).

(57) $[\![\text{Floyd is a passenger}]\!] = \exists s[\mathbf{passenger}(\mathbf{Floyd})(s)]$

However, when *passenger* is modified by a quality adjective, like *good*, the AS operator binds its situation variable with a generic quantifier, thus there is no need (or opportunity) for existential quantification. Under a generic quantifier, *good passenger* will have an individual-level interpretation, shown in (58).

(58) $[\![\text{good AS passenger}]\!] = \lambda x . \text{ GEN } s[\mathbf{passenger}(x)(s)][\exists s'[\mathbf{good}(x)(s') \wedge s \leq_{\min} s']]$

The situation of the nominal predicate in the restrictor clause also accounts for the changed interpretation of *dancer* under quality modification, such as *beautiful* or *bad*. As discussed earlier, the sentence in (59a) entails that Floyd is a dancer in some capacity, while the example in (59b) does not and even discourages contexts in which he is. If Floyd is a bad dancer, he probably is not a professional or regular dancer.

(59)   a.   Floyd is a dancer.
        b.   Floyd is a bad dancer.

Without the AS operator, *dancer* is an individual-level predicate. In the spirit of Kratzer (1995)'s analysis, I represent it with generically bound situations, shown in (60). This holds in

contexts where Floyd is regularly a dancer. Under a quality modifier, such as *clumsy* in (61), AS applies to *dancer*. While the situation *dancer* applies to is still generically quantified over, it is situated in the restrictor clause. Dancer situations are not typical—they provide context for situations of *x* being clumsy.

(60) $[\![\text{Bruce is a dancer}]\!] = \text{GEN } s[s \in C][\textbf{dancer}(\textbf{Bruce})(s)]$

(61) $[\![\text{Bruce is clumsy AS a dancer}]\!] = \text{GEN } s[\textbf{dancer}(\textbf{Bruce})(s)][\exists s'[\textbf{clumsy}(\textbf{Bruce})(s') \wedge s \leq_{\min} s']]$

Positioning the nominal function in the restrictor of the quantifier also accounts for the relative naturalness of a generic interpretation of *brother* without a second argument. Following Partee and Borschev 1999, I assume *brother* with an unpronounced argument has an existentially bound variable, as shown in (62).

(62) $[\![\text{brother}]\!] = \lambda s \lambda x. \exists y[\textbf{brother}(y)(x)(s)]$

I argue *good brother* sounds more natural because the nominal is located in the restrictor clause. Conceptually, the nuclear scope is the main predicate, while the restrictor provides additional context. Thus, it follows that the omission of one of *brother*'s arguments is less salient in this position.

(63) $[\![\text{good AS brother}]\!] = \lambda x.\text{GEN } s[\exists y[\textbf{brother}(y)(x)(s)]][\exists s'[\textbf{good}(x)(s') \wedge s \leq_{\min} s']]$

This pattern is observable in additional generic contexts that *brother* occurs in. Generic *brother* with an unpronounced second argument is also facilitated as the subject of characterizing sentences, such as that in (64). In such a context, *brother* would also be analyzed to occur in the restrictor of the denotation (Carlson, 1989).

(64) $[\![\text{A brother shares his toys}]\!] = \text{GEN} x \text{ GEN} s \ [\exists y[\textbf{brother}(y)(x)(s)]]$
        $[\textbf{shares.his.toys}(x)(s)]$ *representation adapted from Carlson and Pelletier (1995)*

The proposed denotation also accounts for the general resistance of species-denoting terms from quality modification. I assume that all situations of *x* are *person* situations of *x*. Being a person is not defined by actions but inherent traits. If Floyd is a person, then all situations that he is in would be situations of him being a person. For this reason, *person* is a trivial restrictor, and the consequences of the truth conditions of (65) and (66) do not clearly differ.

(65) $[\![\text{good person}]\!]_{INT} = \lambda x.\text{GEN } s[s \in C][\textbf{person}(x)(s)] \wedge \text{GEN } s'[s' \in C][\textbf{good}(x)(s')]$

(66) $[\![\text{good AS person}]\!]_{NI} = \lambda x.\text{GEN } s[\textbf{person}(x)(s)][\exists s'[\textbf{good}(x)(s') \wedge s \leq_{\min} s']]$

In contexts where quality adjectives coerce role interpretations of class nouns, situations can be taken to be defined by function rather than inherent traits. Thus, it yields an *acts like* or *functions as* interpretation.

(67) $[\![\text{good AS paddle}]\!] = \lambda x.\text{GEN } s[\textbf{paddle}(x)(s)][\exists s'[\textbf{good}(x)(s') \wedge s \leq_{\min} s']]$

8. Taking stock

I have argued for an analysis of quality modification that centralizes novel data points related to how they influence the interpretation of the nominals they modify. Quality adjectives alter temporal properties of the nominal they modify, and they allow for a reading of relational nominals with an unpronounced second argument, and they are unable to modify species-denoting terms. I have proposed a silent operator (AS) that links the meaning of the nominal to adjective if their contexts are compatible. The use of a genericity operator and the nuclear scope/restrictor relation between the adjective and noun allow for the influence of quality modification on nominals in the ways mentioned above.

The novel data I have presented supports many components of Larson's (1998) analysis. By using a genericity operator, he accounts for the individual-level interpretation of stage-level predicates, as it binds the eventuality variable of the nominal. His additional mention of the nuclear scope/restrictor relation between *beautiful* and *dancer* touches on the crucial parallels between verbal and nominal predicates that are borne out across a wide variety of data and account for truth conditions observed about the habituality of events and situations. However, by using situations and applying the adjectival function to the individual variable in addition to the situation, my analysis predicts the subject-oriented interpretation of structures such as *fair loser* and *responsible driver*. Maienborn's (2021) analysis crucially introduces a wider variety of data into the picture. Her A-Analysis accounts for the breadth of non-intersective adjectives she examines and their truth conditions, but its lack of compositionality and reliance on pragmatics fails to predict the grammatical influence of non-intersective adjectives on the nominals they modify. My analysis incorporates the strengths of these two analyses while additionally accounting for the novel data I presented.

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