As phrases as a window onto multidimensionality

This paper distinguishes and analyzes two types of as phrases (asPs). The asP in (1a) specifies a dimension of Eloise's kindness. In (1b), it references the capacity through which she is on strike.

a. Eloise is kind as a teacher. (1)

b. Eloise is on strike as a teacher.

Landman (1989), Moltmann (2003), Asher (2006) and Zobel (2018) have analyzed these asPs as a single class. I build on their work by introducing novel data that indicates a semantic contrast between the two. I propose that 'dimensional' asPs (1a) specify scales of multidimensional adjectives (using Sassoon 2016's definition). 'Capacity' asPs (1b) link with a wider range of predicates via Kratzerian situations. Treating dimensional asPs as a distinct class specifically provides a new perspective for understanding subsective modification (e.g. kind teacher) and similative asPs . *How* and *way*: Dimensional asPs can be targeted with property expressions *how* and *way*, as in (2a) and (3a). Capacity asPs require more lexically specific phrases (e.g. through which job for (2b)).

(2)	a. {How in what way} is Eloise kind? As a teacher.	(dimensional)
	b. {How in what way} is Eloise on strike? [#] As a teacher.	(capacity)
(3)	a. One way Eloise is kind is as a teacher.	(dimensional)
	b. $^{\#}$ One way Eloise is on strike is as a teacher.	(capacity)

Entailment patterns: Predicates with capacity but not dimensional asPs entail the predicate alone— Eloise may be unkind in other ways that lower her average kindness below the contextual standard.

a. Eloise is on strike as a teacher \rightarrow Eloise is on strike. (4)(capacity) b. Eloise is kind as a teacher $\not\rightarrow$ Eloise is kind (overall). (dimensional)

Class nouns: Zobel (2018) observes that 'class nouns' (nouns that reference inherent properties as opposed to societal roles) are infelicitous in asPs. This generalization holds for capacity asPs, shown in (5a), but dimensional asPs allow a class noun like *person*, as in (5b). It also has the pragmatic effect of setting up a contrast (e.g. kind as a person, but mean as a teacher).

a. #Eloise {earns 5000 Euro | is on strike} as a person. (5)(capacity) b. Eloise is {likeable | kind | friendly} as a person. (dimensional)

Relational nouns: Some relational nouns sound odd without a second argument pronounced:

Howard is $\{\#a \mid my\}$ brother. (6)

This oddness remains in a capacity asPs, like in (7a), but dimensional asPs facilitate a sortal interpretation of relational nouns, shown in (7b).

a. ??Howard {cares for his siblings | sets the table} as a brother. (7)(capacity) Howard is {kind | caring | responsible} as a brother.

Analysis: Sassoon (2013) defines multidimensional adjectives as gradable predicates with multiple scales/dimensions. These dimensions can be affected by e.g. quantifiers and exception phrases, thus the acceptability of of dimensional asPs in (8) indicates that they reference such scales.

a. Eloise is kind in {every | most | few} way(s)—as a teacher, as a friend, as a coach.... (8) b. Eloise is kind except (for) as a teacher.

In the spirit of Sassoon, I first propose a function *DIM* that applies to predicates *P* and *Q*. It returns a predicate that applies *P* specified by dimension *Q* to an individual and situation.

(9) $\llbracket DIM \rrbracket = \lambda P_{(e,st)} \lambda Q_{(e,st)} \lambda x \lambda s$. *P* holds of *x* and *s* by the dimension *Q*.

I represent kind as a teacher using a generic quantifier over situations, shown in (10). In the restrictor, *teacher* applies to a minimal situation s and an individual x. In the nuclear scope, a second minimal situation variable s is existentially introduced. Kind specified by the dimension teacher applies to x and s', and s' minimally extends s.

(dimensional)

(10) $\llbracket kind as a teacher \rrbracket = \lambda x$. GEN $s[\text{teacher}(x)(s)][\exists s'[\text{DIM}(\text{kind})(\text{teacher})(x)(s') \land s \leq_{\min} s']]$ The nominal is situated in the restrictor to presuppose that there exist teacher situations of x in the actual world (avoiding a *kind like a teacher* interpretation) and so that these situations are not necessarily habitual (e.g. one can be a 'talented dancer' without dancing regularly). I assume the structure in (10) is a part of the adjective, as shown in (11). Dimensional *as* is vacuous. For *kind* without a phrase that introduces its dimension, the value of *P* is provided by context.

(11)
$$\llbracket kind \rrbracket = \lambda P_{(e,st)} \lambda x . \text{ GEN } s[P(x)(s)] [\exists s'[\text{DIM}(kind)(P)(x)(s') \land s \leq_{\min} s']]$$

Capacity *as* links its nominal complement to the main predicate, shown in (12). The nominal applies to an individual x and a minimal situation s, and the main predicate applies to x and a minimal situation s'. s minimally extends s'.

(12) a.
$$\llbracket as \rrbracket_{capacity} = \lambda P_{\langle e, st \rangle} \lambda Q_{\langle e, st \rangle} \lambda x \lambda s'$$
. $\exists s [P(x)(s) \land Q(x)(s') \land s \leq_{\min} s']$

b. [[on strike as a teacher]] =
$$\lambda x \lambda s'$$
. $\exists s [teacher(x)(s) \land on.strike(x)(s') \land s \leq_{\min} s']$]

Kind as a teacher does not entail kind because in (10), kind does not directly apply to the individual. It's dimension is specified by teacher. Thus, it would hold of an individual who is not kind across many other dimensions. I propose property words how and way can access dimensions of multidimensional adjectives. This explains why how questions with (uni)dimensional predicates do not allow for the same *in what way* interpretation as easily. *Tall* is generally not multidimensional (Sassoon 2016). Thus, how cannot be used to ask about dimensions of tallness (e.g. How is Eloise tall? #As an athlete). I attribute the class noun contrast to informativity. The contribution of *person* is trivial in the proposed structure for capacity asPs in (12). Meanwhile, in a dimensional asP, 'person' defines the dimension of kindness of *x*, which would otherwise not be overtly specified. It is most informative in contexts where there are other dimensions along which an individual is not kind, which gives rise to the pragmatic effect of setting up a contrast (e.g. *kind as a person, but mean as a teacher*). A sortal interpretation of 'brother' is facilitated in dimensional asPs because the nominal only applies directly to the individual in the restrictor of the quantifier. This effect also surfaces in characterizing sentences (e.g. *A brother cares for his siblings*), as Sandoval (to appear) observed.

Connections in the grammar: Treating dimensional asPs as scale specifiers provides a novel perspective on representing subsective interpretations of multidimensional adjectives, which can be paraphrased with dimensional asPs (e.g. *kind as a teacher* \approx *kind teacher*). This direct modification gives rise to many of the same grammatical effects as dimensional asPs do, shown in (13).

- (13) a. Eloise is a kind teacher \neq Eloise is kind (overall). (adjective is not entailed)
 - b. Eloise is a kind person.

- (class nouns are licit)
- c. Howard is a #({kind | caring | responsible}) brother. (sortal reading of relational nouns)

Assigning a semantics to subsective modifiers using or derived from the formalism in (11) would account for this data and the paraphrase connection. My conceptualization of dimensional asPs also relates to similatives asPs, as they can also be targeted with *how* and *way*, shown in (14).

(14) a. Eloise danced as Howard danced \approx Eloise danced {how | the way} Howard danced.

b. Howard is kind as his mother is \approx Howard is kind {how | (in) the way} his mother is.

Though dimensional and similative asPs do not have the same meaning, this parallel suggests similative asPs could be conceptualized using dimensions as well, particularly for the example in (14b), which Rett (2013) defines as a 'generic equative' that relates properties. Both this example and (1a) access a dimension of kindness.

Conclusion: I have presented novel data distinguishing dimensional asPs from capacity asPs . I analyzed dimensional asPs as arguments of multidimensional adjectives and capacity asPs as modifiers linked to a wider range of predicates with situations. Conceptualizing dimensional asPs in this way sheds light on its cousinhood to similatives and multidimensional subsective modifiers.

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