

# Deriving direct experience effects from adjectival lexical semantics

Patrick Muñoz

Researchers studying adjectival predicates of personal taste (**fun**, **tasty**) have noted that these expressions give rise to certain presuppositions of direct experience when embedded beneath the subjective attitude verb **find** in small clauses (1-a), and when occurring with *dativus iudicantis* PPs (1-b) (cf. Hirvonen 2014 for **find**, Pearson 2013 for PPs).

- (1) a. Alfonse finds the soup tasty.  
b. The soup is tasty {to / for} Alfonse.  
    ↪ Alfonse has tasted the soup.

In this talk, I present a method of deriving direct experience presuppositions arising in these grammatical contexts from the lexical semantics of the relevant adjective, rather than by stipulating constraints in the semantics of attitude verb or PP, as proposed e.g. in Stephenson (2007) and Hirvonen (2014).

I take as a case study a robust class of English adjectives, exemplified by **frightening**, which have the following features in common: (i) they are deverbal, being derived from object-experiencer psych verbs by means of the suffix **-ing** (**frighten**); (ii) their verbal counterparts are themselves morphologically related to nominals denoting experiential kinds (**fright**); (iii) like PPTs, they occur felicitously in **find**-embedding and *dativus iudicantis* constructions (2-a)-(2-b); (iv) their verbal counterparts appear with internal arguments to form constructions synonymous with these latter two (2-c), which also give rise to such presuppositions.

- (2) a. Alfonse finds Halloween frightening.  
b. Halloween is frightening {to / for} Alfonse.  
c. Halloween frightens Alfonse.  
    ↪ Alfonse has experienced Halloween (in such a way that it could cause fright in him).

**Frightening**-type adjectives reveal their semantic connection with experiential kinds in virtue of their transparent morphological relation with nominals denoting those kinds, and I propose that their lexical semantics, in virtue of containing reference to these kinds, give rise to direct experience presuppositions in the above three contexts.

Such an account has three benefits. First, it allows us to account compositionally for the deep relations between such adjectives and their related experiential kind-denoting nominal counterparts, which can shed light on how the grammar of such adjectives is sensitive to the experience of individuals. Second, it allows for an explanation of direct experience

presuppositions in terms of more basic and independently required suppositions, without stipulation, and derives the effect for a new grammatical construction (2-c). Finally, placing the source of the direct experience presupposition in the adjective helps account for why not all adjectives in contexts like (1-a)-(1-b) obviously give rise to such presuppositions (or at least not in the same way), such as **easy**, **useful**, and **likely**: these plausibly do not contain reference to experiential kinds in their semantics.<sup>1</sup>

For concreteness, I adopt the framework in Lasersohn (2005), according to which all extensions are given relative to a judge parameter  $j$ ; I also treat all extensions as being evaluated relative to a standard of evaluation  $s$ , similar to Kennedy (2007), relevant for determining the cutoff point for the extension of positive-form adjectives (I omit worlds for simplicity).

Let **fright** denote the experiential kind FRIGHT, treating kinds for simplicity as an independent type.

$$(3) \quad \llbracket \text{fright} \rrbracket^{j,s} = \text{FRIGHT}$$

The verbalizing suffix **-en** then combines with an experiential kind  $k$  to produce a transitive degree function  $\mathcal{K}_k$ , which maps two individuals  $x, y$  to the degree (i.e., the quantity) of  $k$  that  $y$  engenders in  $x$ . **Frighten**-type verbs must denote degree functions because they are gradable, as shown by their compatibility with degree morphology (5-a) and quantitative **how**-questions (5-b).

$$(4) \quad \text{a.} \quad \llbracket \text{-en} \rrbracket^{j,s} = \lambda k. \lambda x_e. \lambda y_e. \mathcal{K}_k(x)(y)$$

$$\text{b.} \quad \llbracket \text{frighten} \rrbracket^{j,s} = \lambda x_e. \lambda y_e. \mathcal{K}_{\text{FRIGHT}}(x)(y)$$

$$(5) \quad \text{a.} \quad \text{Halloween frightens Alfonse \{a lot / more than it frightens Bethany\}.}$$

$$\text{b.} \quad \text{How much does Halloween frighten Alfonse?}$$

The adjectivizing suffix **-ing** then converts such a verb into a one-place gradable adjective by forcing the first argument of the transitive measure function to be provided by the judge parameter: thus **frightening** denotes a function from individuals to the quantity of fright engendered in the relevant judge or standard by that individual,<sup>2</sup> making its denotation similar to that of a Lasersohnian PPT, where its verbal counterpart was purely ‘descriptive,’ i.e. judge-insensitive.

$$(6) \quad \text{a.} \quad \llbracket \text{-ing} \rrbracket^{j,s} = \lambda H_{e,ed}. \lambda x_e. H(j)(x)$$

$$\text{b.} \quad \llbracket \text{frightening} \rrbracket^{j,s} = \lambda x_e. \mathcal{K}_{\text{FRIGHT}}(j)(x)$$

The silent morpheme POS then converts intransitive degree functions into properties, which map individuals to true just in case the degree function outputs a degree for that individual at least as great as the degree determined by the standard  $s$ .

<sup>1</sup>Bylinina (2016) also discusses a number of evaluative adjectives that are **find**-embeddable, many of which do not obviously enforce direct experience requirements.

<sup>2</sup>This makes no commitment as to how the value of this judge is supplied, and is consistent with nonindexical contextualist, assessment-sensitive, early Lasersohnian relativist, and objectivist views. The proposal can further be trivially altered so that judges are treated not as individuals but as standards, adopting a functional mapping from individuals to such standards.

- (7) a.  $\llbracket \text{POS} \rrbracket^{j,s} = \lambda G_{ed} . \lambda x_e . G(x) \geq s(G)$   
 b.  $\llbracket \text{POS frightens Alfonse} \rrbracket^{j,s} = \lambda x_e . \mathcal{K}_{\text{FRIGHT}}(a)(x) \geq s(\lambda y_e . \mathcal{K}_{\text{FRIGHT}}(a)(y))$   
 c.  $\llbracket \text{POS frightening} \rrbracket^{j,s} = \lambda x_e . \mathcal{K}_{\text{FRIGHT}}(j)(x) \geq s(\lambda y_e . \mathcal{K}_{\text{FRIGHT}}(j)(y))$

It follows that (8-a) makes crucial reference in its semantics to the degree of fright produced in Alfonse by Halloween ( $\mathcal{K}_{\text{FRIGHT}}(a)(h)$ ); but if Alfonse has not had an experience of Halloween of the appropriate type, such that it could cause some degree of fright, there is no such degree, and the derivation crashes, resulting in presupposition failure in the absence of such experience. This experience requirement is preserved in presupposition holes like sentential negation (8-b).

- (8) a.  $\llbracket \text{Halloween POS frightens Alfonse} \rrbracket^{j,s} =$   
 $1 \text{ iff } \mathcal{K}_{\text{FRIGHT}}(a)(h) \geq s(\lambda y_e . \mathcal{K}_{\text{FRIGHT}}(a)(y))$   
 b.  $\llbracket \text{Halloween doesn't POS frighten Alfonse} \rrbracket^{j,s} =$   
 $1 \text{ iff } \mathcal{K}_{\text{FRIGHT}}(a)(h) \not\geq s(\lambda y_e . \mathcal{K}_{\text{FRIGHT}}(a)(y))$

Treating **find** as in the relativist proposal in Sæbø(2009), and *dativus iudicantus* PPs as in Lasersohn (2005) and MacFarlane (2014), as ‘radical judge shifters’ that serve merely to set the value of  $j$ , an analogous result can be derived to secure the experiential presuppositions for these constructions, and the synonymy of (2-a)-(2-c): cf. (8-a), (9-c), (10-c).

- (9) a.  $\llbracket \text{find} \rrbracket^{j,s} = \lambda \phi_{e,t} . \lambda x_e . \phi(x)$   
 b.  $\llbracket \text{find} \wedge \llbracket \text{Halloween POS frightening} \rrbracket^{j,s} \rrbracket^{j,s} =$   
 $\lambda x_e . \mathcal{K}_{\text{FRIGHT}}(x)(h) \geq s(\lambda y_e . \mathcal{K}_{\text{FRIGHT}}(x)(y))^3$   
 c.  $\llbracket \text{Alfonse finds} \wedge \llbracket \text{Halloween POS frightening} \rrbracket^{j,s} \rrbracket^{j,s} =$   
 $1 \text{ iff } \mathcal{K}_{\text{FRIGHT}}(a)(h) \geq s(\lambda y_e . \mathcal{K}_{\text{FRIGHT}}(a)(y))$
- (10) a.  $\llbracket \text{to} \rrbracket^{j,s} = \lambda x_e . \lambda G_{ed} . [\lambda j_e . G](x)$   
 b.  $\llbracket \text{frightening to Alfonse} \rrbracket^{j,s} = \lambda x_e . \mathcal{K}_{\text{FRIGHT}}(a)(x)$   
 c.  $\llbracket \text{Halloween is POS frightening to Alfonse} \rrbracket^{j,s} =$   
 $1 \text{ iff } \mathcal{K}_{\text{FRIGHT}}(a)(h) \geq s(\lambda y_e . \mathcal{K}_{\text{FRIGHT}}(a)(y))$

This analysis then promises to apply to canonical PPTs: for **fun** this application is straightforward, since plausibly FUN is an experiential kind that the nominal **fun** denotes, making the adjective analogous to **frightening** in denotation, albeit with less morphological transparency. **Tasty** may instead measure the quantity of the experiential kind PLEASURE engendered by the taste of an individual (where **taste** is a relational noun denoting the relation of being a taste of something).

- (11) a.  $\llbracket \text{taste} \rrbracket^{j,s} = \lambda x_e . \lambda y_e . \text{taste}'(x)(y)$   
 b.  $\llbracket \text{-y} \rrbracket^{j,s} = \lambda R_{e,et} . \lambda x_e . \mathcal{K}_{\text{PLEASURE}}(j)(\iota y [R(x)(y)])$   
 c.  $\llbracket \text{tasty} \rrbracket^{j,s} = \lambda x_e . \mathcal{K}_{\text{PLEASURE}}(j)(\iota y [\text{taste}'(x)(y)])$

Thus a number of diverse experiential effects can plausibly be traced to adjectival lexical semantics and their reference to experiential kinds.

<sup>3</sup>Where  $\wedge$  is the intensionalizing operator over judges, i.e. for any expression  $\alpha$ ,  $\llbracket \wedge \alpha \rrbracket^{j,s} = \lambda x_e . \llbracket \alpha \rrbracket^{x,s}$ .

## References

- [1] Bylinina, L. 2016. Judge-dependence in degree constructions. *Journal of Semantics*. doi: 10.1093/jos/ffw011.
- [2] Hirvonen, S. 2014. Predicates of personal taste and perspective dependence. Ph.D. thesis, UCL.
- [3] Kennedy, C. 2007. Vagueness and grammar: the semantics of relative and absolute gradable adjectives. *Linguistics and Philosophy* 30(1): 1-45.
- [4] Lasnik, P. Context dependence, disagreement, and predicates of personal taste. *Linguistics and Philosophy* 28(6): 643-686.
- [5] MacFarlane, J. 2014. *Assessment Sensitivity: Relative Truth and Its Applications*. OUP.
- [6] Pearson, H. 2013. A judge-free semantics for predicates of personal taste. *Journal of Semantics* 30(1): 103-154.
- [7] Sæbø, K. J. 2009. Judgment ascriptions. *Linguistics and Philosophy* 32(4): 327-352.
- [8] Stephenson, T. 2007. Towards a theory of subjective meaning. Ph.D. thesis, MIT.