

Degrees and State Kinds

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1 Introduction

Big-picture theoretical issue:

- adjectives have degree arguments (Cresswell 1976, Kamp 1975 and countless others)
- adjectives have state arguments (Parsons 1990, Kratzer 2000, Engelberg 2005 among others; cf. Geuder 2005, Katz 2000, 2003, Maienborn 2007)
- how are they related? do we need both?

Empirical starting point:

- (1) a. How did he die?
b. How tall is he?

Why does *how* have both a degree and a manner use?

Not a coincidence:

- many languages reflect such connections
- part of a three-way connection among degrees, manners, and kinds

This talk grew out of work conducted in collaboration with Meredith Landman, which focused primarily on the kind-manner connection (Landman & Morzycki 2003, Landman 2006). Thanks also to Adam Gobeski, Ai Matsui, Alex Clarke, Ania Lubowicz, Anne-Michelle Tessier, Chris O'Brien, Curt Anderson, Gabriel Roisenberg Rodrigues, Greg Johnson, Jan Anderssen, Kay Ann Schlang, Olga Eremina, and Phil Pellino.

The agenda:

- suspicious homophonies in words for kinds, manners, and degrees
- sketch idea that degrees are actually state-kinds
- use this to explain these homophonies: in degree anaphors, then in clausal degree constructions
- note on non-degree modifiers of adjectives (maybe)

2 Suspicious homophonies

2.1 Polish

Same anaphor, *tak*, used across the three domains:

- (2) a. KIND:
taki pies
such-MASC dog
'such a dog', 'a dog of that kind'
- b. MANNER:
tak się zachowywać
such REFL behave
'behave that way'
- c. DEGREE:
tak wysoki
such tall
'that tall'

Same *wh*-word across the three domains:

- (3) a. KIND:
jaki pies
WH-MASC dog
'what kind of dog'
- b. MANNER:
Jak się zachowywał?
WH REFL behaved-3MASC
'How did he behave?'
- c. DEGREE:
Jaki wysoki jest Clyde
WH-MASC tall is Clyde?
'How tall is Clyde?'

Combined, these elements used to abstract over the three domains:

- (4) a. KIND:
taki pies jak ten
such-MASC dog WH this
'such a dog as this', 'a dog of this kind'
- b. MANNER:
zachowywać się tak jak Clyde
behave REFL such WH Clyde
'behave like Clyde'
- c. DEGREE:
taki wysoki jak Clyde
such-MASC tall WH Clyde
'as tall as Clyde' (i.e., ordinary equative)

Similar cross-categorical behavior in *sam* (roughly, 'same'):

- (5) a. KIND:
taki sam pies
such-MASC same dog
'a dog of the same kind'
- b. MANNER:
zachowywać się tak samo
behave REFL such same-ly
'behave the same way'
- c. DEGREE:
tak samo wysoki jak Clyde
such samely tall WH Clyde
'as tall as Clyde', 'of the same height as Clyde'

Least appealing conclusion:

- *tak*, *jak*, and *sam* each have three homophonous forms
- the three forms happen to be ambiguous in a perfectly parallel way

2.2 German

Anaphor *so*:

- (6) a. KIND:
so einen Hund
such a dog
'a dog of the same kind'

- b. MANNER:
so getanz
such danced
'danced like that'
- c. DEGREE:
Ich bin so groß
I am such tall
'I am this tall.'

Wh-word *wie*:

- (7) a. KIND:
so ein Hund wie dieser
such a dog WH this
'a dog such as this'
- b. MANNER:
Jan hat so wie Maria getanz.
John has such WH Mary danced
John danced the way Mary did.'
- c. DEGREE:
Ich bin so groß wie Peter
I am such tall as Peter
'I am as tall as Peter.'

2.3 English

- (8) a. KIND: such a dog as this
b. MANNER: Clyde behaved as I did.
c. DEGREE: Clyde is as tall as Floyd.

2.4 French

French *comme* 'like' (Desmets & Moline 2007; (9b) and (9c) are theirs):

- (9) a. KIND:
un chien comme Hildy
a dog like Hildy
'a dog like Hildy'
- b. MANNER OR DEGREE:
Jean travaille comme son père.
John works like his father
John works like his father/as his father did.'

- c. DEGREE:
Comme il travaille!
 like he works
 ‘How he works!’ (degree exclamative)

2.5 Two-way parallels

Kind-manner parallels:

- (10) English *like* (Landman 2006, Anderson 2010)
 a. KIND: a dog like this
 b. MANNER: behave like this
- (11) Japanese *dono-yoo-n*{*i/a*}
 a. KIND:
Dono-yoo-na hon-o yomimasu ka.
 WH book-ACC read Q
 ‘What kind of book do you read?’
 b. MANNER:
Dono-yoo-ni setsumee-shimashita ka.
 WH explanation-did Q
 ‘How did you explain it?’

Manner-degree parallel in English *how* (in (1)) and *so*:

- (12) a. DEGREE: so tall (as this)
 b. MANNER: stand so as not to block your view

For equatives and their manner counterparts (similatives), this connection has been examined extensively by Haspelmath & Buchholz (1998) and Rett (2011) (who also develops a semantics). Languages with fully homophonous words for degree and manner *as*:

- (13) a. Romance: Spanish, Portuguese (*como*); Catalan (*com*); Occitan (*coma*); Italian (*come*)
 b. Balto-Slavic: Slovene (*kot*); Russian (*kak*); Slovak (*ako*); Lithuanian (*kaip*)
 c. Germanic: Dutch (*als*); Yiddish (*vi*); Danish, Swedish (*som*); Icelandic (*og*); Faroese (*sum*)
 d. Romani (*kade . . . sar*)
 e. Modern Greek (*san/ópos*)
 f. Finnish (*kuin*)
 g. Georgian (*rogorc*)

- h. Armenian (*inčpes*)
 i. Turkish (*kadar*)
 j. Lezgian (*xiz*)
 k. Abkhaz (*-eyps*)
 l. Kabardian (*x^oedew*)

2.6 Interim summary

- same morphemes often used for kinds, manners, and degrees
- these domains of the model should be understood in parallel terms

3 Degrees as state kinds

3.1 A standard view of degrees

Usual assumptions about degrees (von Stechow 1984, Kennedy 1997, Schwarzschild & Wilkinson 2002, Bale 2008 among many others):

- pure representations of measurement
- can be represented as e.g. real numbers (or intervals)
- may be associated with a dimension
- arguments of an adjective: $\llbracket tall \rrbracket = \lambda x \lambda d . tall(x, d)$
- don’t encode much information

Moltmann (2007, 2009) points out major difficulties with this view. First, what do adjectival nominalizations denote?:

- (14) a. Clyde’s height is $\left\{ \begin{array}{l} 6 \text{ feet} \\ \text{striking} \end{array} \right\}$.
 b. We were amazed at Clyde’s height.

If $\llbracket Clyde’s height \rrbracket = 6ft$, these should mean:

- (15) a. Six feet is $\left\{ \begin{array}{l} 6 \text{ feet} \\ ??\text{striking} \end{array} \right\}$.
 b. ??We were amazed at 6 feet.

Second, non-degree modifiers of adjectives (Geuder 2005; Tom's talk):

- (16) a. Clyde is $\left\{ \begin{array}{l} \text{visibly happy} \\ \text{happy in a visible way} \\ \text{strangely beautiful} \\ \text{beautiful in a strange way} \end{array} \right\}$.
- b. The talk was $\left\{ \begin{array}{l} \text{oddly unnerving} \\ \text{fatally flawed} \end{array} \right\}$.

Some of these can get degree interpretations:

- *visibly happy*: 'so happy that it's visible'
- *strangely beautiful*: 'beautiful to a degree so great that it's strange'
- *oddly unnerving*: 'so unnerving that it's odd'

But not the natural interpretation. Better:

- *visibly happy*: 'happy in a visible way'
- *strangely beautiful*: 'beautiful in a strange way'
- *oddly unnerving*: 'unnerving in an odd way'

Degrees too impoverished to reflect this.

Moltmann's proposal: introduce *tropes*—'concrete manifestations of a property in an individual'—into the ontology.

Lesson to draw: we need a richer notion of degrees.

3.2 The core idea: degrees are state-kinds

Kinds:

- alongside ordinary individuals, there are kinds of individuals (Carlson 1977): Fido vs POODLE, Clyde vs. LINGUIST
- distinct domain in the model: D_e vs D_k

How to make sense of kind-manner-degree parallel?:

- assume Davidsonian eventualities in the model: events and states (Davidson 1967, Parsons 1990)
- distinction between kinds and their realizations isn't limited to individuals

- kinds of events can represent manners (Landman & Morzycki 2003)
- kinds of states can represent degrees

If there are state-kinds, the Moltmann facts less surprising.¹

3.3 How can state-kinds represent degrees?

Chierchia (1998) view of kinds: functions from possible worlds to pluralities.

- kind RABBIT picks out, for any world, plurality of rabbits in that world
- can construct event- and state-kinds the same way

How this brings us closer to degrees:

- original conception of degrees of Cresswell (1976): equivalence classes of individuals
- the degree '6 feet tall' consists of the plurality of individuals that are six feet tall
- a single individual's height can vary from one world to another, so ...
- '6 feet tall' can be a function from a world to the plurality of 6-foot-tall individuals in that world—i.e., a kind

Putting a Davidsonian twist on things:

- having a certain height is a state
- so, the degree '6 feet tall' can pick out a plurality of *states* of being that tall

More precisely:

- a kind corresponds to a property
- Chierchia: $\cup k$ is the property counterpart of k
- iff Bugs is a rabbit, $\cup \text{RABBIT}(\text{Bugs})$
- iff e is an elegant event, $\cup \text{ELEGANT}(e)$
- iff s is a state of being 6 feet tall, $\cup \text{SIX-FEET}(s)$

Not all state-kinds represent degrees:

- (17) a. Clyde is six feet tall.
 b. Floyd is beautifully tall.

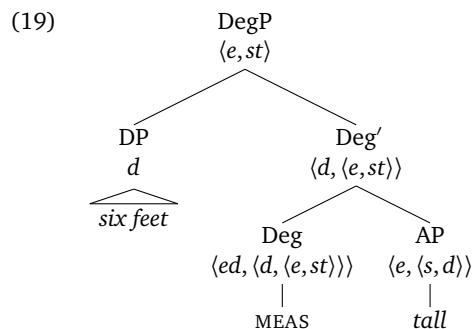
State-kind BEAUTIFULLY isn't ordered wrt state-kind SIX-FEET.

Any state of tallness instantiates exactly one state-kind that can be ordered by the 'taller than' relation.

3.4 The lexical semantics of adjectives

- (18) Floyd is six feet tall.

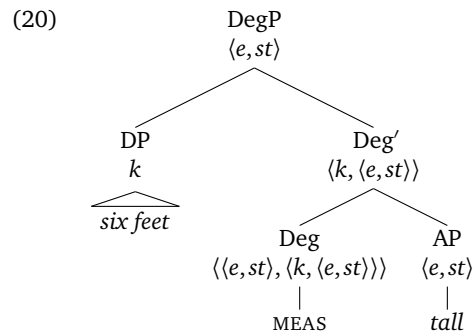
One normal conception of how this works involves a head that introduces the measure phrase (Svenonius & Kennedy 2006). With states, might look like (19):²



Alternative in terms of degrees as ordered state-kinds:

¹More on this to follow, maybe.

²The implementation here combines ideas typical in a Kennedy (1997)-style approach in one of many possible configurations.



- (21) $\llbracket tall \rrbracket = \lambda x \lambda s . \mathbf{tall}(x, s)$

Take $\mathbf{tall}(x, s)$ to mean 's is a state of x having the height x has'.

To state semantics of MEAS, a measure function mapping a state to its corresponding degree state-kind:

- (22) $\mu_a(s) \stackrel{\text{def}}{=} \iota k . k$ is among the kinds ordered by $\geq_a \wedge \cup k(s)$

So $\mu_{\mathbf{tall}}(s)$ is the state-kind that represents the measure of the tallness of state s.

MEAS in terms of this:³

- (23) a. $\llbracket \text{MEAS} \rrbracket = \lambda a_{\langle e, st \rangle} \lambda k \lambda x \lambda s [a(x)(s) \wedge \mu_a(s) = k]$
 b. $\llbracket six\ feet \rrbracket = \text{SIX-FEET}$
 c. $\llbracket \text{MEAS} \rrbracket (\llbracket tall \rrbracket) (\llbracket six\ feet \rrbracket)$
 $= \lambda x \lambda s [\mathbf{tall}(x, s) \wedge \mu_{\mathbf{tall}}(s) = \text{SIX-FEET}]$

- (24) $\llbracket Floyd\ is\ six\ feet\ tall \rrbracket = \exists s [\mathbf{tall}(\mathbf{Floyd}, s) \wedge \mu_{\mathbf{tall}}(s) = \text{SIX-FEET}]$

True iff there is a state s of Floyd's tallness, and the degree state-kind that s instantiates is SIX-FEET.

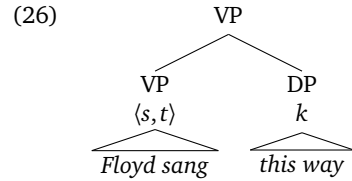
³Unconventionally, I've rendered this with = rather than \geq . This is chiefly because it simplifies things when dealing with *wh*-clauses, but is independently defensible. When you ask someone whether they are *3 inches tall*, they will almost surely say 'no', as this would predict, rather than 'yes, in fact ...', as the \geq view would.

Can do positive adjectives analogously with (something like) the usual POS morpheme (von Stechow 1984 and many others):

- (25) a. $\llbracket \text{POS} \rrbracket = \lambda a_{\langle e, st \rangle} \lambda x \lambda s . a(x)(s) \wedge \mu_a(s) \geq \text{standard}$
 b. $\llbracket \text{POS} \rrbracket (\llbracket \text{tall} \rrbracket) = \lambda x \lambda s . \mathbf{tall}(x, s) \wedge \mu_{\mathbf{tall}}(s) \geq \text{standard}$

4 Cross-categoriality and kind anaphors across domains

4.1 Kind Predicate Modification



- (27) a. $\llbracket \text{this way} \rrbracket = k_{\text{this-way}}$
 b. $\llbracket \text{Floyd sang} \rrbracket = \lambda e . \mathbf{sing}(\mathbf{Floyd}, e)$

To combine these:

- Could treat $\llbracket \text{this way} \rrbracket$ as a property. Runs counter to the morphosyntax.
- Could Chierchia's kinds-to-properties type shift. Natural.

- (28) KIND PREDICATE MODIFICATION
 If a node α has daughters β and γ ,

$$\llbracket \alpha \rrbracket = \lambda x . \cup \llbracket \beta \rrbracket (x) \wedge \llbracket \gamma \rrbracket (x)$$

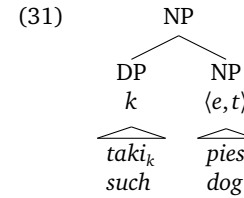
if defined, where x ranges over individuals or eventualities.

- (29) $\llbracket \text{Floyd sang this way} \rrbracket$
 $= \exists e [\mathbf{sing}(\mathbf{Floyd}, e) \wedge \cup k_{\text{this-way}}(e)]$

True iff there is an event of Floyd singing that realizes the (contextually-provided) kind $k_{\text{this-way}}$.

4.2 Individual kinds

- (30) taki pies
 such-MASC dog
 'such a dog'



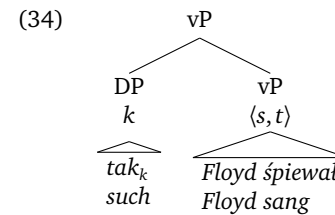
Taki denotes a contextually-provided kind (for now):⁴

- (32) a. $\llbracket \text{taki}_k \rrbracket = k$
 b. $\llbracket \text{pies} \rrbracket = \lambda x . \mathbf{dog}(x)$
 c. $\llbracket \text{taki}_k \text{ pies} \rrbracket = \lambda x . \cup \llbracket \text{taki} \rrbracket (x) \wedge \mathbf{dog}(x)$
 $= \lambda x . \cup k(x) \wedge \mathbf{dog}(x)$

True of an individual iff it is a dog and realizes the contextually-provided kind k .

4.3 Event kinds (again)

- (33) Floyd tak śpiewał
 Floyd such sang
 'Floyd sang that way'



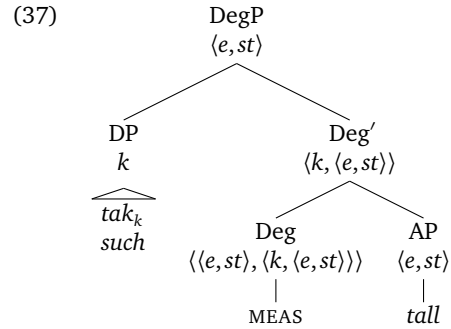
- (35) a. $\llbracket \text{Floyd śpiewał} \rrbracket = \lambda e . \mathbf{sing}(\mathbf{Floyd}, e)$
 b. $\llbracket \text{tak}_k \text{ Floyd śpiewał} \rrbracket = \lambda e . \cup k(e) \wedge \mathbf{sing}(\mathbf{Floyd}, e)$

True of an event iff it is a singing by Floyd and realizes the contextually-provided (event-)kind k .

⁴I haven't included a state argument in the noun denotation, partly for simplicity and partly because the evidence for state arguments in nouns is actually rather limited (Maienborn 2012, Parsons 1990).

4.4 State kinds

(36) tak wysoki
such tall
'that tall'



Can't do a structure with adjunction and intersective interpretation because:

- no nodes of the right types here
- this is consistent with how measure phrases work

(38) a. $\llbracket \text{MEAS} \rrbracket = \lambda a_{\langle e, st \rangle} \lambda k \lambda x \lambda s [a(x)(s) \wedge \mu_a(s) = k]$
 b. $\llbracket \text{tak}_k \rrbracket = k$
 c. $\llbracket \text{wysoki} \rrbracket = \lambda x \lambda s . \mathbf{tall}(x, s)$
 d. $\llbracket \text{MEAS} \rrbracket (\llbracket \text{wysoki} \rrbracket) (\llbracket \text{tak}_k \rrbracket)$
 $= \lambda x \lambda s [\mathbf{tall}(x, s) \wedge \mu_{\mathbf{tall}}(s) = k]$

True of an individual x and a state s iff s is a state of x 's tallness, and the degree state-kind that s instantiates is the contextually-provided (state-)kind k .

4.5 Glance back at English degree anaphors

Not synonymous:

(39) a. Floyd is that tall.
b. Floyd is tall in that way.

That way can be anaphoric to any state-kind, but *that* only to a degree state-kind:

(40) a. #Floyd is beautifully tall, and Clyde is also that tall.
b. Floyd is beautifully tall, and Clyde is also tall in that way.

(41) $\llbracket \text{that MEAS tall} \rrbracket = \llbracket \text{MEAS} \rrbracket (\llbracket \text{tall} \rrbracket) (\llbracket \text{that}_k \rrbracket)$
 $= \lambda x \lambda s [\mathbf{tall}(x, s) \wedge \mu_{\mathbf{tall}}(s) = k]$

Only degree reading is possible because $\mu_{\mathbf{tall}}$ maps to degree state-kinds.⁵

Not so for *in that way*:

(42) a. $\llbracket \text{that way} \rrbracket = k_{\text{that-way}}$
 b. $\llbracket \text{in} \rrbracket = \lambda k \lambda a_{\langle e, st \rangle} \lambda x \lambda s . a(x)(s) \wedge {}^U k(s)$
 c. $\llbracket \text{in} \rrbracket (\llbracket \text{that way} \rrbracket) (\llbracket \text{POS tall} \rrbracket)$
 $= \lambda x \lambda s . \mathbf{tall}(x, s) \wedge \mu_{\mathbf{tall}}(s) \geq \text{standard} \wedge {}^U k_{\text{that-way}}(s)$

4.6 Interim summary

Understanding degrees as state-kinds and manners as event-kinds buys:

- a cross-categorial theory of kind anaphora
- a principled explanation of the homophony of kind, manner, and degree anaphors in Polish and German
- a semantics for adverbial *in that way*
- an account of the difference between anaphoric *that* and *in that way*

It moves us closer to explanations of:

- such cross-categorial connections elsewhere (in French, English, Japanese, etc.)
- adverbial modification of adjectives with e.g. *beautifully*

⁵As it stands, this would simply come out false if k is not a degree state-kind. Failure of presupposition might be a preferable outcome. It might be achieved by replacing the identity requirement reflected in $=$ to a requirement that the two kinds be ordered identically by the $\geq_{\mathbf{tall}}$ relation. (Since this is a linear order, being identically ordered implies being identical.) It might also be the case that *that* is actually just lexicalized a degree word itself in English—unlike in Polish and German, there doesn't seem to be any evidence that it isn't.

5 Cross-categoriality, *as* clauses, and degree constructions

5.1 *Rett's Generalization*

Rett (2011) provides a theory of the relation between adverbial *as*-constructions (similatives) and adjectival *as*-constructions (equatives) across languages. The core observation (my wording):

- (43) **RETT'S GENERALIZATION**
 Across many languages, adjectival *as*-constructions get degree readings and adverbial *as*-constructions get manner readings.

Already saw evidence for this above. She provides an additional telling example:

- (44) a. John cooled the pie as he did the lasagna.
 b. The pie cooled as the lasagna did.

Can mean that the pie and lasagna cooled in the same manner (say, in the refrigerator). Can't mean they cooled the same amount, or to the same degree.

To this I'd add (45):

- (45) Clyde is beautifully tall. Floyd is as tall as Clyde.

Can't mean that Floyd's tallness is, like Clyde's, beautiful.

At least in English, *how* behaves similarly:

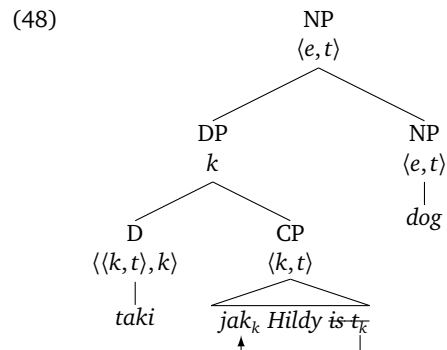
- (46) a. How tall are you?
 b. How are you tall?

Rett's conclusions:

- verbs don't have degree arguments
- complementizers in *as*-clauses involve lambda abstraction generalized to both manners and degrees

5.2 *Adnominal cases*

- (47) taki pies jak Hildy
 such-MASC dog WH Hildy
 'such a dog as Hildy'



The embedded-clause (in semi-Polish):

- (49) $\llbracket_k \text{Hildy is-}t_k \rrbracket = \lambda k . \cup k(\mathbf{Hildy})$

The *wh*-word just enforces the type, a property of kinds:

- (50) a. $\llbracket jak \rrbracket = \lambda f_{\langle k, t \rangle} \lambda k . f(k)$
 b. $\llbracket jak \rrbracket (\llbracket_k \text{Hildy is-}t_k \rrbracket) = \lambda k . \cup k(\mathbf{Hildy})$

The *tak*/'such' morpheme applies to this and picks a particular kind that satisfies this property using a contextually-supplied choice function *choice*:⁶

- (51) a. $\llbracket tak(i) \rrbracket = \lambda f_{\langle k, t \rangle} . choice(f)$
 b. $\llbracket tak(i) \rrbracket (\llbracket_k \text{Hildy is-}t_k \rrbracket) = choice(\cup k(\mathbf{Hildy}))$

Via Kind Predicate Modification:

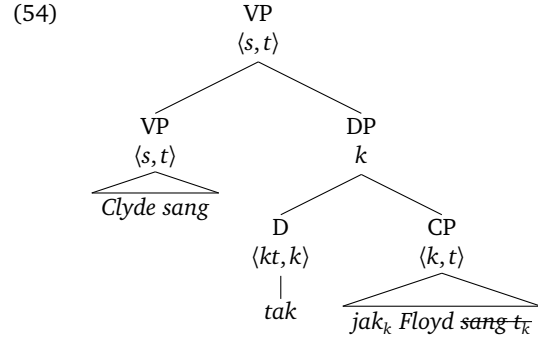
- (52) $\llbracket [taki [jak_k \text{Hildy is-}t_k]] \text{dog} \rrbracket$
 $= \lambda x . \cup choice(\lambda k . \cup k(\mathbf{Hildy}))(x) \wedge \mathbf{dog}(x)$

True of an individual *x* iff *x* is a dog that realizes a particular kind that is also realized by **Hildy**.

⁶The anaphoric uses can now be understood in the same way, with the value of the property being itself supplied by context, paralleling how e.g. *We saw [many \emptyset]* is interpreted.

5.3 Adverbial cases

- (53) Clyde śpiewał tak jak Floyd
 Clyde sang such WH Floyd
 ‘Clyde sang like Floyd’, ‘Clyde sang as Floyd did’



Via Kind Predicate Modification:

- (55) $\llbracket jak_k \text{ Floyd } sang \ t_k \rrbracket$
 $= \lambda k . \exists e' [\mathbf{sing}(\mathbf{Floyd}, e') \wedge \cup k(e')]$
- (56) $\llbracket tak \rrbracket (\llbracket jak_k \text{ Floyd } sang \ t_k \rrbracket)$
 $= \mathit{choice}(\lambda k . \exists e' [\mathbf{sing}(\mathbf{Floyd}, e') \wedge \cup k(e')])$

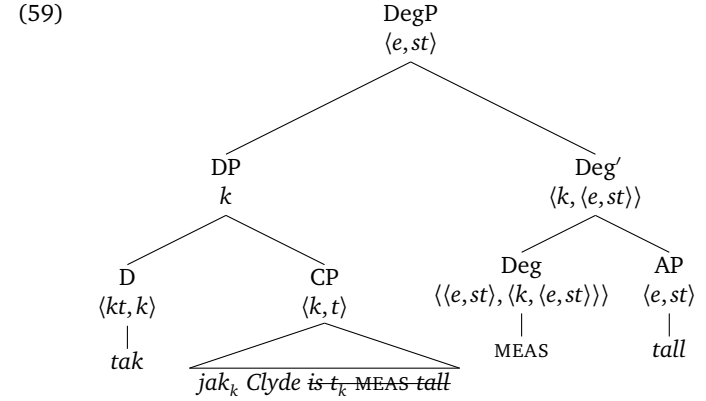
Via Kind Predicate Modification in the matrix clause:

- (57) $\llbracket Clyde \text{ sang } [tak \ [jak_k \text{ Floyd } sang \ t_k]] \rrbracket$
 $= \lambda e . \mathbf{sing}(\mathbf{Clyde}, e) \wedge$
 $\cup \mathit{choice} \left(\lambda k . \exists e' \left[\mathbf{sing}(\mathbf{Floyd}, e') \wedge \cup k(e') \right] \right) (e)$

True of an event if it is a singing by Clyde and it realizes a particular event-kind that a singing event by Floyd also realizes.

5.4 Adjectival cases: equatives

- (58) taki wysoki jak Clyde
 such-MASC tall WH Clyde
 ‘as tall as Clyde’



- (60) $\llbracket jak_k \text{ Clyde } is \ t_k \text{ MEAS } tall \rrbracket$
 $= \lambda k . \exists s [\mathbf{tall}(\mathbf{Clyde}, s) \wedge \mu_{\mathbf{tall}}(s) = k]$

Importantly, (60) is a property satisfied by precisely one state-kind: the one that represents Clyde’s height.

- (61) $\llbracket tak \rrbracket (\llbracket jak \ \lambda k \text{ Clyde } is \ t_k \text{ MEAS } tall \rrbracket)$
 $= \mathit{choice}(\lambda k . \exists s [\mathbf{tall}(\mathbf{Clyde}, s) \wedge \mu_{\mathbf{tall}}(s) = k])$

The choice function is forced to pick the only kind that satisfies this property, so (61) is identical to:

- (62) $\iota k [\exists s [\mathbf{tall}(\mathbf{Clyde}, s) \wedge \mu_{\mathbf{tall}}(s) = k]]$

This can be interpreted wrt the matrix MEAS:

- (63) a. $[tak \ jak_k \text{ Clyde } is \ t_k \text{ MEAS } tall] \text{ MEAS } tall$
 b. $\llbracket MEAS \rrbracket (\llbracket tall \rrbracket) (\llbracket tak \ jak_k \text{ Clyde } is \ t_k \text{ MEAS } tall \rrbracket)$
 $= \lambda x \lambda s \left[\mathbf{tall}(x, s) \wedge \mu_{\mathbf{tall}}(s) = \iota k \left[\exists s' \left[\mathbf{tall}(\mathbf{Clyde}, s') \wedge \mu_{\mathbf{tall}}(s') = k \right] \right] \right]$

True of an individual x and a state s iff s is a state of x ’s tallness, and the degree state-kind that s instantiates is identical to the degree state-kind that Clyde’s tallness state also instantiates.

That is: an equative.

5.5 Larger points

A partial account of Rett's Generalization:

- *as*-clauses with adjectives get degree readings because they must be interpreted with the aid of a degree head
- *as*-clauses with verbs get manner readings because they aren't

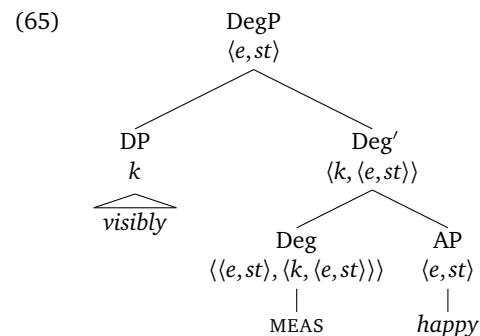
Other larger points:

- state-kind conception of degrees again made cross-categorical theory possible
- no ambiguity required either for *tak* 'such' or the *wh*-word *jak*, so general account of (main) suspicious homophonies
- a uniform semantics for *as*-clauses involving abstraction over kinds
- English *as*-clauses wouldn't be significantly different

6 Brief speculation about non-degree modification of adjectives

(64) Floyd is $\left\{ \begin{array}{l} \text{visibly happy} \\ \text{strangely beautiful} \end{array} \right\}$.

How to interpret these? If *visibly* and *strangely* name kinds, one might imagine (65):



But:

- *visibly* names the wrong kind of kind for this
- can't do this straightforwardly with Kind Predicate Modification either

What to do?

These adverbs seem to be impossible/degraded with overt degree words:

(66) ??Floyd seems strangely $\left\{ \begin{array}{l} \text{more} \\ \text{as} \\ \text{very} \\ \text{too} \end{array} \right\}$ beautiful.

Introduced with their own null degree head?

7 Final remarks

The upshot:

- there must be a deep connection between kinds, manners, and degrees
- can make this connection if:
 - manners are event-kinds
 - degrees are state-kinds
- further evidence that we need a more information-rich representation of degrees (Moltmann 2007, 2009)
- adjectives don't need both state and degree arguments
- ... because we can eliminate degree arguments entirely

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