The metasemantics of taste: an argument from 'non-main-predicate' position

An opinionated guide to predicates of personal taste

Pranav Anand [1] Natasha Korotkova [2,3]

[1] UC Santa Cruz

[2]University of Konstanz

[3]University of Tübingen

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Summary of Day 1 and Day 2

- PPTs are in some way special in that they are sensitive to subjective judgment
- Classic data:
  - Kinds of disagreement (Kölbel 2003; Lasersohn 2005 and much subsequent work) and agreement (Moltmann 2010)
  - Retraction (MacFarlane 2005, 2014; Marques 2015)
  - Genericity / normativity (Anand 2009; Bhatt and Pancheva 2006; Moltmann 2010, 2012; Pearson 2013a)
- Central puzzle:
  - Conceptual: The nature of the taster
  - Compositional: How to capture this sensitivity?
  - If one believes in judges: how and where are judges encoded?

Today

- Focus on embedding under attitudes
- But not the kind of embedding typically brought up

Multiple PPTs

(1) Matrix clause

a. #The documentary is depressing but uplifting.

b. #The depressing documentary is uplifting.

(2) Embedded clause

a. Pascal: # Mordecai believes [that the documentary is depressing but uplifting].

b. Pascal: # Mordecai believes [that the depressing but uplifting documentary won an award].

Setting the stage I

A seemingly well-known fact

PPTs in attitudes **have to** be evaluated wrt to the most local taster (a.m.o Pearson 2013a; Stephenson 2007)

(3) *Context: Pascal and Mordecai are playing Mastermind. Pascal finds it difficult, while Mordecai easy. Pascal says:*

a. ✓ Mordecai thinks that the game is $\textbf{easy}_{MORDECAI}$, while in fact it is $\text{difficult}_{PASCAL}$.

b. # Mordecai thinks that the game is $\text{easy}_{MORDECAI}$ and $\text{difficult}_{PASCAL}$.

Setting the stage II

A less well-known fact

PPTs in attitudes allow non-local tasters when in **attributive** position (mentioned in passim by Sæbø (2009: 337) and Pearson (2013a: 118, fn.15))

(4) ✓ Mordecai thinks that the difficult$_{PASCAL}$ game is easy$_{MORDECAI}$.

Analytical disputes

Pearson (2013a: 118)

Presumably [the difficult game] . . . is construed de re and hence outside the scope of the attitude predicate.

Sæbø (2009: 337)

[I]t is just as easy to handle the phenomenon . . . by saying that the judge argument of the attributive adjective is not saturated by the subject of thinks[, but] . . . filled by the designated variable.

- So which is it? **Can** attributive disjoint PPTs be construed 'de dicto', or **must** they be 'de re'?

Referential transparency

- Attitudinal environments exhibit a dual property: they allow us to refer to entities using descriptions that hold of attitudinal worlds
- but they also admit descriptions that hold of the actual world

(5) Mistaking King L. for a peasant, O. thought L. insulted him.

a. Oedipus thought a peasant insulted him.

b. Oedipus thought the king insulted him.

Scope and ‘de re’

- One prominent account of ‘de re’ from (Russell 1905): matter of scope-taking

(6) [the king]$_1$ Oedipus thought$_{i'}$ t_1 insulted him.

A Caveat: De Re and Double Vision

- But it cannot just be about scope
- Consider names:

(7) a. Lois thinks$'_i$ that Clark saved her, but it was actually Bruce.

b. Clark$_1$ Lois thinks$'_i$ that t_1 saved her, but it was actually Bruce.

- In what way does t_1 pick out Superman in Lois's doxastic worlds?

A Caveat: De Re and Double Vision

- The Lesson: de re is about descriptive substitution under referential identity, not scope per se

(8) a. Lois thinks that Clark saved her.

b. Lois thinks that [Superman] saved her.

Scopal Paradoxes

- Another problem for scope theories: scopal paradoxes

(9) a. Mary wants$_{i'}$ to buy a hat just like mine. (Fodor 1970)
Intended: Mary wants to buy a pillbox hat (a type I own).

b. [a hat just like mine]$_1$ Mary wants to buy t_1.

c. [just like mine]$_2$ Mary wants to buy a hat t_2.

Scopal Paradoxes

- Several solutions proposed for this
- Our D can handle it as well, assuming it can map predicates to predicates

(10) a. Mary wants to buy a hat D(just like mine).

b. Mary wants to buy a hat [that is a pillbox].

Takehome on de re

- de re ascriptions present problems for simple assumptions that intensional operators introduce index for everything below
- Scope theories get part of the way, but lead to problems
- there are other empirical arguments against 'de re' as scope-taking (Keshet 2008; Charlow and Sharvit 2014)

Non-local tasters

Key observation

PPTs in attitudes allow non-local tasters when in **attributive** position.

(11) ✓ Mordecai thinks that the $\text{difficult}_{PASCAL}$ game is $\text{easy}_{MORDECAI}$.

This talk

- **Empirically**: Non-local taster only possible when the DP is read 'de re'
- **Analytically**: Is this instrumental in singling out the right approach, or in eliminating not so good ones?
  - Some theories undergenerate and disallow non-local tasters altogether (e.g. Pearson 2013a)
  - Some theories overgenerate and allow non 'de re' readings of DPs (e.g. Stephenson 2007; Sæbø 2009; Stojanovic 2007)

The analytical take home

- Tasters are necessarily part of evaluation indices
- Choice of taster will
  - force a **corresponding** choice of world (hence, 'de re')
  - be governed by the same restrictions on worlds (Farkas 1997; Percus 2000)

(12) $\ldots w_1$ think [[$_{DP}$ PPT NP] PPT]

(13) $\ldots w_1$ think [[$_{DP}$ PPT NP] PPT]

(14) * $\ldots w_1$ think [[$_{DP}$ PPT NP] PPT]

Setting things up

- Issues we wish to avoid
  - Assuming attitude predicates introduce a judge, is it necessarily the attitude holder (Stephenson 2007; Lasersohn 2005)?
  - Can there be distinct judges per 'category' of judgment? (Anand 2009)
- We avoid them by
  - constructing cases where no judge can hold both PPT judgment
  - limiting ourselves to clear within-category opposites

Perspective clash = 'de re' construal

Context: Mary and Sue are debating several items of clothing in a catalog. They happen on an item that Sue believes is a beautiful dress and Mary an ugly poncho. Sue says:

(15) Covert taster

a. ✓ Mary thought a beautiful$_{SUE}$ dress was ugly. [de re]

b. # Mary thought a beautiful$_{SUE}$ poncho was ugly. [de dicto]

(16) Overt taster

a. ✓ Mary thought a dress beautiful to me was ugly. [de re]

b. ✓ Mary thought a poncho beautiful to me was ugly. [de dicto]

Obligatory 'de re'

- Prediction: infelicity in 'de re' blocking environments
- Prediction borne out: *there*-constructions and Free Indirect Discourse do not allow different perspectives

There I

Generalization (Keshet 2008, following Musan 1997)

Existential *there* bans 'de re' readings

(17) Presence vs. absence of a contradiction

a. ✓ Mary thinks many fugitives are in jail. [DE RE]

b. # Mary thinks there are many fugitives in jail. [DE DICTO]

(Keshet 2008: p. 48, ex. 24)

There II

There and non-local tasters

Speaker's perspective only with an overt taster

(18) Covert taster

a. # Mary thought there was a **beautiful**$_{SP}$ item on sale. [de re]

b. ✓ Mary thought there was a beautiful$_{M}$ item on sale. [de dicto]

(19) Overt taster

✓ Mary thought there was an item **beautiful to me** on sale.

Note: other environments

- several environments prohibit mismatched worlds: bare PP relatives, small clause complements of *have*, depictives
- but PPTs are not easily incorporated into these (they are i-level adjectives)

Free Indirect Discourse I

Free Indirect Discourse (FID)

- A hybrid with traits of both direct discourse and canonical embedding under attitudes (Eckardt 2014 and references therein)
- FID blocks 'de re' readings of DPs (Sharvit 2008)

(20) a. **Attitude report:**
John thought that **the dean** liked him that day.
(possible in a situation where John doesn't believe that the person liking him is the dean)

b. **FID**
The dean liked him today, thought John.
(impossible in a situation where John doesn't believe that the person liking him is the dean)

(Sharvit 2008: 367, 43b-c)

Free Indirect Discourse II

FID and non-local tasters

Speaker's perspective only with an overt taster

(21) Covert taster

Intended: A **boring**$_{SPEAKER}$ game was exciting$_{MORDECAI}$, thought Mordecai.

Resulting: #A boring$_{MORDECAI}$ game was exciting$_{MORDECAI}$, thought Mordecai.

(22) Overt taster

✓A game **boring to me** was exciting$_{MORDECAI}$, thought Mordecai.

(*me* $\neq$ *Mordecai*: in FID, personal indexicals such as *I* refer to the narrator; Schlenker 2004; Sharvit 2008)

The bottom line

- Non-local tasters require a ‘de re’ construal
- These facts alone are fully expected of adjectives
- These facts are tricky for theories of PPTs

Previous approaches

- Can be divided into three classes
  - those that necessarily associate judges with evaluation index (Lasersohn 2005)
  - those that can dissociate judge from evaluation index (Stephenson 2007; Stojanovic 2007; Sæbø 2009)
  - those that necessarily dissociate judge from evaluation index (Pearson 2013a)
- We will show that only the first class derives our facts without additional machinery

Necessarily associate I (Lasersohn 2005)

- indices are (minimally) of type $D_e \times D_s$ (judges and worlds)

(23) $[\![\alpha]\!]^{c,\langle j,w\rangle} = \ldots$

- PPTs are sensitive to the judge coordinate of the index

(24) $[\![\text{beautiful}]\!]^{c,\langle j,w\rangle} = \lambda y.\ 1$ iff y is beautiful for j

- attitudes quantify over $\langle att, w\rangle$ pairs

(25) $[\![x \text{ think } \alpha]\!]^{c,\langle j,w\rangle} = 1$ iff $\forall w' \in DOX_{x,w}\ [\![\alpha]\!]^{c,\langle x,w'\rangle} = 1$

- everything in scope of attitude evaluated relative to shifted world and attitude holder qua judge

Necessarily associate II (Lasersohn 2005)

- scope of attitude wrt shifted world and judge

(26) $[\![x \text{ think } \ldots [_{DP} \text{ a beautiful poncho }] \ldots]\!]^{c,\langle j,w\rangle} = 1$
iff $\forall w' \in DOX_{x,w}$ $[\![\ldots [_{DP} \text{ a beautiful poncho }] \ldots]\!]^{c,\langle x,w'\rangle} = 1$.

- only way to 'recover' higher judge is to evaluate attributive PPT against non-local index
- but intersective modifiers have same index as entire DP (Keshet 2008)
- Therefore, the entire DP must be read 'de re'

(27) $[\![x \text{ think } [\ldots [_{DP} \text{ a beautiful poncho }]^{c,\langle j,w@\rangle} \ldots]^{c,\langle x,w'\rangle}]\!]^{c,\langle j,w\rangle} =$
1 iff $\forall w' \in DOX_{x,w}$ $\exists z[z$ is a poncho in $w@$ and beautiful for j $\ldots]$

- Many unlike theories are similarly correct (MacFarlane 2014; Bylinina et al. 2014)

Can dissociate I (Stephenson 2007)

- same index type & attitude shifting
- PPTs differ: judge is part of argument structure

(28) $[\![\text{beautiful}]\!]^{c,\langle j,w\rangle} = \lambda z.\lambda y$ 1 iff y is beautiful for z.

- z can be filled by PRO_J or null pronominal

(29) a. $[\![\text{beautiful PRO}_J]\!]^{c,\langle j,w\rangle} = 1$ iff $\lambda y.$ y is beautiful for j

b. $[\![\text{beautiful pro}_i]\!]^{c,\langle j,w\rangle} = 1$ iff $\lambda y.$ y is beautiful for $g(i)$

- If attrib. judge only PRO_J, same readings as Lasersohn (2005)
- But use of pro_i could allow 'de dicto' readings with mismatching judges

(30) $[\![\ x$ think ... $[_{DP}$ a beautiful pro_{Susan} poncho $]\ldots]\!]^{c,\langle j,w\rangle} = 1$ iff $\forall w' \in DOX_{x,w}\ \exists z[z$ is a poncho in w' and beautiful for Susan ...$]$

Can dissociate II (Stojanovic 2007; Sæbø 2009)

- judge is a distinguished variable, x_0
- PPTs dyadic (like Stephenson, but reversed order):

(31) $[\![\text{beautiful}]\!]^c = \lambda y \lambda z \lambda w.$ 1 iff y is beautiful for z.

- **main predicate** PPTs: z unsaturated, yielding property bound by attitude (no *shift* per se in attitudes)

(32) $[\![\text{a poncho is beautiful}]\!]^c = \lambda z \lambda w.$ 1 iff $\exists y[$ y is a poncho in w and y is beautiful for $z]$.

- **attributive** PPTs: z filled by x_0.

(33) $[\![\text{beautiful } x_0]\!]^{c,\langle j,w\rangle} = \lambda y$ 1 iff y is beautiful for $g(0)]$.

Can dissociate II

- Ths theory allows different perspectives and 'de dicto' readings, like Stephenson

(34) $[\![x \text{ think } \ldots [_{DP} \text{ a beautiful } x_0 \text{ poncho }] \ldots]\!]^{c,\langle j,w\rangle} = 1$ iff $\forall w' \in DOX_{x,w}\ \exists z[z$ is a poncho in w' and beautiful for $g(0)$ =Susan $\ldots]$.

Some justification

- Stojanovic (2007) explores the above analysis for conceptual reasons
- Sæbø (2009) sees an empirical difference between main predicate and attributive PPTs wrt *find*

(35) a. John finds one poncho ugly.

b. #John finds one ugly thing a poncho.

- Suggestion: *find* requires complement to have an unsaturated judge argument, and that's not possible in ??

Necessarily dissociate (Pearson 2013a)

- PPTs are dyadic, but
- judge is just a variable bound at LF by a high operator
- additionally: must be bound by **closest** binder (similar to Farkas/Percus constraints, but now for judges alone)

(36) [λx. ... think [λy. ... beautiful to y]]

- Pearson assumes an LF generic operator as well, but irrelevant here (simply admits generic people like the judge)

Necessarily dissociate (Pearson 2013a)

- for this theory, being read 'de re' is not enough to force non-local perspective
- only way to recover a judge is to move the DP out of the scope of the local binder

(37) $[\lambda x.\ \ldots\ [_{DP}\text{beautiful to } y]_j \ldots\ \text{think}\ [\ \lambda y.\ \ldots\ t_j]]$

- but we can construct scopal paradox arguments

(38) Mary wants to buy an ugly coat.

(39) a. John thinks that [on each of his birthdays]$_i$, [$_{DP}$ the disgusting cake he was baked that day$_i$] was tasty.

b. [$_{DP}$ the disgusting cake he was baked that day$_{*i}$]$_j$ John thinks that [on each of his birthdays]$_i$, t_j was tasty.

Summing up

PPT non-exceptionalism

PPTs pattern precisely like any non-perspectival predicate wrt 'de re' behavior.

- Any theory which strongly links judgment perspectives with worlds of evaluation will get our data right
- But several extent theories do not do this, yielding theories that are either too weak or too strong
- Similarly, any implicit argument theory will be too weak, unless it is supplemented with Musan/Keshet-like constraints

Things could have been otherwise...

- Data could have pointed to judges obeying Keshet/Musan-like constraints with other judges, but not with worlds/times.
- This is essentially what a local-binding account would predict.
- That we see judges patterning with worlds and times provides a strong argument for a unified representation.

Contemplating judicicide

- We are kept from abandoning judges wholesale based on
  - faultless disagreement (Kölbel 2003)
  - restrictions on main predicates under *find* (Sæbø 2009)
- We suspect the latter could follow from a more rigorous examination of s-selection
- Hence: existence of judges rests on faultless disagreement.

A loophole

- PPTs have been argued to admit generic/acentric judges (Lasersohn 2005)

(40) I know that stamp collecting is boring (for people in general), but I find it interesting.

- Generic judges in attributive position admit 'de dicto' readings

(41) Mary thought a beautiful$_{gen}$ poncho was ugly.

- Suggests that generic judges are not mediated by the evaluation index (see Jackendoff (2007) for a lexical approach)

Epistemics

- Epistemic modal auxiliaries are often grouped together with PPTs: they are also sensitive to some kind of "judge" (MacFarlane 2014; Pearson 2013b; Schaffer 2011; Stephenson 2007)
- Do epistemics within DPs exhibit the same pattern that we have discussed for PPTs?

Embedded epistemics: similarities with PPTs

- Only local knower in main predicate position (Hacquard 2010; Stephenson 2007 on auxiliaries):

(42) a. ✓ Jane thinks that a thunderstorm is likely$_{JANE}$.

b. # Jane thinks that a thunderstorm is likely$_{JANE}$ and impossible$_{SPEAKER}$.

- Non-local knowers allowed in attributive position:

(43) Jane thinks that an impossible$_{SPEAKER}$ thunderstorm is likely$_{JANE}$.

Embedded epistemics: dissimilarities with PPTs

- Non-local knowers do not force the DP to be construed 'de re':

(44) Sue: Mary is certain that two things that might be vampires are werewolves.

- The taster $\neq$ the knower (as we know from Stephenson 2007 for root cases):

(45) Vampires might$_{SPEAKER}$ be scary.

- Suggests a distinct source for epistemic judges.

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Framework for approach

- (Kaplan 1968): for de re interpretation of x at index i, find an alternative description d such that $d(i) = x$
- Let us assume a concept generator (i.e., description generator) D from individuals to descriptions (Percus and Sauerland 2003)

(46) a. Oedipus thought$_{i'}$ D(the king) insulted him.

b. Oedipus thought$_{i'}$ [the peasant O. met] insulted him.

Pearson (2013a) and concept generators

- Can Pearson's system derive 'de re' readings with distinct judges if one uses concept generators? No.
- Central problem: two different pieces of machinery that don't talk to each other
  - c.g.: handles world of evaluation (and indiv. concept)
  - binder: provides value for argument of PPT

(47) [λx[Mary thinks [λy CG(a dress that is beautiful to ___) is ugly to y]]]

Pearson (2013a) and concept generators

- perhaps the CG necessarily introduces a local binder

(48) [λx[Mary thinks [λy CG(λz a dress that is beautiful to z) is ugly to y]]]

- but how to relate z and x across the intervening binder? One could have the attitude verb take x as an argument and smuggle it into the concept generator, but that seems epicyclic.

(49) [λx[Mary thinks x [λy CG$_x$(λz a dress that is beautiful to z) is ugly to y]]]

- In sum, it's not impossible to allow the theory to account for the facts, but it requires non-trivial gymnastics.