Day 3: Attitudes & Judge-free frameworks

An opinionated guide to the language of opinion Natasha Korotkova¹ Pranav Anand²

University of Konstanz UC Santa Cruz

> ESSLLI 32 July 28, 2021





Summary of Day 1 and Day 2

► SPs (*delicious, smart, important* ...) vs. OPs and SP exceptionalism

Classic data:

- ► Faultless disagreement (Kölbel 2004; Lasersohn 2005 and much subsequent work)
- Genericity / normativity (Anand 2009; Bhatt and Pancheva 2006; Moltmann 2010, 2012; Pearson 2013a)
- ► Non-autocentric uses (Lasersohn 2005; Stephenson 2007a,b; Pearson 2013a)

Central puzzle:

- ► Conceptual: The nature of the opinion holder
- Compositional: How to capture this sensitivity?
- ▶ If one believes in judges (=individual arguments responsible for opinion): how and where are judges encoded?

Today

- Part 1 Attitudes (discussion follows Anand and Korotkova 2021)
 - Unexceptional behavior
 - ► Constraints on theories of SP exceptionalism
- Part 2 Genuinely judge-free frameworks (focus on MacFarlane 2014)

Part 1: SPs in attitudes

Setting the stage I

A seemingly well-known fact

SPs in attitudes have to be evaluated wrt to the most local judge (Stephenson 2007a; Pearson 2013a a.o.)

- Pascal: Mordecai believes [that the documentary is depressing_M], even though it is uplifting_P.
 - But why is (2) felicitous?
- (2) Pascal: Mordecai believes [that the uplifting documentary is depressing].

Setting the stage II

- Other cases with two contrary SPs: contradictory
- (3) a. #Pascal: Mordecai believes [that the documentary is $depressing_M$ and $uplifting_M$].
 - b. #Pascal: Mordecai believes [that the depressing and uplifting documentary won an award].
 - (i) ... the depressing and uplifting documentary
 - (ii) ... the $\frac{depressing_{M}}{depressing_{M}}$ and $\frac{depressing_{M}}{depressing_{M}}$
- (4) a. #The documentary is depressing and uplifting.
 - b. #The depressing documentary is uplifting.
 - c. #The depressing and uplifting documentary won an award.

Setting the stage III

A less well-known fact

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

Agenda

- ► Attributive position: not enough for a non-local perspective
- ► Non-local judges possible iff the DP in question is read de re (only possible for non-main-predicate position items)
- ► A novel constraint on the distribution of judges: judges and worlds must be bundled together

Primer on 'de re' I

- ► Attitudinal environments (attitude verbs, also expressions like according to and in X's opinion): intensional, allow to talk about worlds other than the world of evaluation
- (5) Ralph believes that unicorns exist.
 - Exhibit the co-called 'de re' / 'de dicto' ambiguities
- (6) Ralph believes that someone is a spy.
 - a. De dicto: Ralph believes that there are spies.
 - b. De re: Someone is such that Ralph believes that this person is a spy. (based on Quine 1956)

Primer on 'de re' II

- Classic theory of de re: scope-taking (Russell 1905)
- (7) [someone]₁
 Ralph believes t_1 is a spy.

Primer on 'de re' III

- ► Classic problem for the classic scope theory: Double Vision (Quine 1956)
- (8) Context: Walter White is a high school chemistry teacher who begins to manufacture methamphetamine to supplement his income, unbeknowst to his family, including his wife Skylar and his brother-in-law, Hank, who serves in the Drug Enforcement Administration. Meanwhile, Hank is investigating Heisenberg, a potentially apocryphal new drugmaker, and comes into possession of a sketch of Heisenberg. What he does not recognize is that Walter and Heisenberg are the same person.
 - a. De re: Hank believes that Walter is a drug manufacturer.
 - De dicto: Hank believes that Walter is not a drug manufacturer.

(based on the American TV series Breaking Bad, Season 4)

Primer on 'de re' IV

- ► The lesson from Double Vision: 'de re' is about descriptive substitution under referential identity, not scope per se
- ▶ In order to get 'de re' right, we need a mechanism for generating 'identities'/'guises' without changing the syntactic structure (Aloni 2001; Percus and Sauerland 2003; Charlow and Sharvit 2014)

Primer on 'de re' V

► Takehome for today:

- 'de re' ascriptions present problems for simple assumptions that intensional operators introduce index for everything below
- Scopal theories can't derive Double Vision
- Other problems for scopal theories: scope paradoxes (Fodor 1970; Keshet 2008, 2010), bound 'de re' (Charlow and Sharvit 2014)
- Have a look at Keshet and Schwarz (2019) if want to learn more

Non-local judges I

Key observation

SPs in attitudes allow non-local judges when in attributive position and the entire DP is read 'de re'.

- (9) Pascal: Mordecai believes [that the uplifting documentary is depressing].
 - a. DE DICTO: # ... that the uplifting_M documentary is depressing_M.
 - b. DE RE: \checkmark ...that the uplifting documentary is depressing.
 - c. MIXED (de re noun): # ... that the uplifting_M documentary is depressing_M.
 - d. MIXED ($de\ dicto\ noun$): #...that the uplifting poly documentary is $depressing_M$

Non-local judges II

- ► SP non-exceptionalism
- (10) Mordecai believes [that the deciduous tree is evergreen].
 - a. DE DICTO: # ... that the deciduous tree is evergreen.
 - b. DE RE: \checkmark ... that the decidious tree is evergreen.
 - c. MIXED (*de re* noun): # ...that the deciduous tree is evergreen.
 - d. MIXED (*de dicto* noun): # ...that the **deciduous tree** is **evergreen**.
 - ► Main predicate position items are de dicto (Farkas 1997; Percus 2000 though see Schwager 2009), relative to a local index
 - Only non main predicate position items can be 'de re'
 - ► (10a): contradiction (can't be deciduous and evergreen at the same time)

Non-local judges III

- (10) Mordecai believes [that the deciduous tree is evergreen].
 - c. MIXED (*de re* noun): # ...that the **deciduous tree** is **evergreen**.
 - d. MIXED (*de dicto* noun): # ...that the **deciduous tree** is evergreen.
 - Mixed readings ruled out (10c, 10d): noun and its intersective modifier evaluated at the same world (Musan 1997; Keshet 2008)
- (11) Intersective modification:(see Morzycki 2016 on modifiers) \llbracket an evergreen tree \rrbracket $= \exists x.x \in \{x \mid x \text{ is evergreen in } w \} \cap \{x \mid x \text{ is a tree in } w \}$

Non-local judges IV

- ► The behavior of SPs: unsurprising
 - ► All SPs have intersective readings
 - ► Some SPs have subsective readings (Morzycki 2016:18-19,30-41), but still no world displacement

(12) a beautiful dancer

- a. intersective: a person who is beautiful and who is a dancer
- b. subsective: a person who is beautiful as a dancer (=subset of dancers), maybe not beautiful simpliciter (cf. skillful)

Non-local judges V

- ► Problem: the introduction of judges and SP exceptionalism
 - Some theories get the data
 - Some theories overgenerate: predict mixed readings
 - Some theories undergenerare: only get the data under scopal views on de re
- Moral: relativist judges or no judges at all

Setting things up

- Issues we wish to avoid
 - Assuming attitude predicates introduce a judge, is it necessarily the attitude holder (Stephenson 2007a; 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 SP judgments
 - limiting ourselves to clear within-category opposites

Perspective clash = 'de re' construal I

- (13) Context: Sue and Mary are debating several stuffed animals in a Steiff catalog. They happen on an item that Sue believes is an adorable dog and Mary an ugly fox.
 - a. DE RE
 Sue: Mary thinks that an adorable SUE dog is uglyMARY
 - b. MIXED (de dicto noun)

 Sue: # Mary thinks that an adorable_{SUE} fox is ugly_{MARY}.

Perspective clash = 'de re' construal II

- (14) Context: Sue and Mary are debating several stuffed animals in a Steiff catalog. Mary happens on an item she takes to be an ugly fox and asks Sue's opinion. Sue mistakenly describes another nearby toy, leading Mary to believe Sue thinks that the item she asked about in the first place is an adorable Sue-According-to-Mary dog. Sue actually thinks it's an average dog.
 - a. Sue: ✓Mary thinks that a fox_{MARY} is ugly_{MARY}. DE DICTO
 - b. Sue: ✓Mary thinks that a dog_{SUE} is ugly_{MARY}. DE RE
 - c. Sue: #Mary thinks MIXED (de dicto noun) that an adorable_{SUE-ACC-TO-MARY} fox is ugly_{MARY}.
 - d. Sue: #Mary thinks MIXED (de re noun) that an adorable_{SUE-ACC-TO-MARY} dog is ugly_{MARY}.

Obligatory 'de re'

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

There I

Generalization (Keshet 2008, following Musan 1997)

Existential *there* bans 'de re' readings

- (15)Presence vs. absence of a contradiction
 - ✓ Mary thinks many fugitives are in jail. a.

DE RE

b. #Mary thinks there are many fugitives in jail. [DE DICTO] (Keshet 2008:p. 48, ex. 24)

There II

- ► Cannot test direct contradictions: *there*-codas ban i-level predicates and all SPs we tested
- Infelicity in a context: there-pivot must be 'de dicto', local judge
- (16) Context: Mary tells Sue about several stuffed animals she saw in a Steiff catalog. She describes one dog she saw, which Mary herself found ugly, but believes would be liked by Sue (i.e. adorable for Sue). Sue later sees it herself and agrees that it is ugly.

Sue: Mary thinks that there is an #adorable_{SUE} / ✓ugly_{MARY} dog on sale.

There III

- ► A non-local perspective: possible with an overt judge
- (17) Context: Mary tells Sue about several stuffed animals she saw in a Steiff catalog. She describes one dog she saw, which Mary herself found ugly, but believes would be liked by Sue (i.e. adorable to Sue). Sue later sees it herself and agrees that it is ugly.

Sue: Mary thought that there was a dog adorable to me_{SUE} on sale.

There IV

Bottom line

- ► Non-local judges impossible with *there*-constructions
- Overt judges behave differently

Free Indirect Discourse I

Free Indirect Discourse (FID)

- ► A special narrative strategy 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)

(18) FID:

Context: John is constantly confusing President Ipsum and Dean Lorem at his university. Glancing at a school newspaper, he sees a picture of Lorem under the headline "Resigned".

- a. DE DICTO: ✓{The president, Ipsum, he} finally resigned to-day, thought John.
- b. DE RE: #{The dean, Lorem, she} finally resigned today, thought John.

Free Indirect Discourse II

- ▶ Non-local perspective: banned with bare SPs
- (19) a. #One uplifting_{SPEAKER} documentary he watched was depressing_M, thought Mordecai.
 - b. ✓One documentary he watched was depressing_M, thought Mordecai.
 - #One adorable_{SPEAKER} dog she saw was ugly_M, thought Mary.
 - d. ✓One dog she saw was ugly_M, thought Mary.

Free Indirect Discourse III

- Non-local perspective: possible with overt judges
- (20) Watson: Several cases interesting to me were boringHOLMES, thought Holmes.
- (21) One dog adorable to me was ugly_{MARY}, thought Mary.

Free Indirect Discourse IV

Bottom line

- Non-local perspective banned in FID
- Overt judges behave differently

The bottom line

- Non-local tasters require a 'de re' construal
- ► These facts alone are fully expected of intersective modifiers
- ► These facts are tricky for theories of SPs

Previous approaches

► Three classes

- ► NECESSARILY ASSOCIATE judges with evaluation index (Lasersohn 2005; Bylinina 2017)
- CAN DISSOCIATE judge from evaluation index (Stephenson 2007a; Stojanovic 2007; Sæbø 2009)
- ► NECESSARILY DISSOCIATE judge from evaluation index (McCready 2007; Bylinina et al. 2014; Pearson 2013a; Zakkou 2019)

(22) JUDGE-INDEX correlation

The judge of an SP correlates with the index of evaluation for the SP: if an SP is evaluated with respect to a judge j and an index i, then j and i must be introduced by the same operator.

Necessarily associate I

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

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

- ▶ SPs are sensitive to the judge coordinate of the index
- (24) $[\![adorable \]\!]^{c,\langle j,w\rangle} = \lambda y$. 1 iff y is adorable for j
 - attitudes quantify over (att,w) pairs

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

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

Necessarily associate II

- scope of attitude wrt shifted world and judge
- (26) a. Pascal: Mordecai thinks an uplifting documentary is depressing.
 - b. $[x \text{ believe } \dots [DP \text{ an uplifting documentary }] \dots]^{c,\langle j,w\rangle} = 1$ iff $\forall w' \in DOX_{x,w}[\dots [DP \text{ an uplifting documentary }] \dots]^{c,\langle x,w'\rangle} = 1$.
 - How to recover a higher judge? Evaluate attributive SP against non-local index
 - Intersective modifiers have same index as entire DP (Keshet 2008)
 - ▶ The entire DP must be read 'de re'

Necessarily associate III

```
(27) [x \text{ believe } [\dots [DP \text{ an uplifting documentary }]^{c,\langle j,w\rangle} \dots]^{c,\langle x,w'\rangle} ]^{c,\langle j,w\rangle} = 1 \text{ iff } \forall w' \in DOX_{x,w}
\exists z[z \text{ is a documentary in } w \text{ and uplifting for } j \dots]
```

```
(28) Pascal: Mordecai believes

[ that [ the documentary in WORLD(i) uplifting to JUDGE(i) in WORLD(i) ]

is depressing to JUDGE(i') in WORLD(i') ].
```

Necessarily associate IV

Bottom line

Any theory that bundles judges and worlds together in indices of evaluation gets our data.

Can dissociate I

- Stephenson (2007a,b):same index type & attitude shifting
- SPs differ: judge is part of argument structure
- (29) $[\![\text{uplifting }]\!]^{c,\langle j,w\rangle} = \lambda z.\lambda y \text{ 1 iff } y \text{ is uplifting for } z.$
 - ► z can be filled by PRO_J or null pronominal
- (30) a. $[\![\!]\!]$ uplifting $PRO_J[\!]\!]^{c,\langle j,w\rangle} = 1$ iff $\lambda y.\ y$ is uplifting for j b. $[\![\!]\!]\!]$ uplifting $pro_i[\!]\!]^{c,\langle j,w\rangle} = 1$ iff $\lambda y.\ y$ is uplifting for g(i)
 - ► If attrib. judge only PRO_J, same readings as Lasersohn (2005)

Can dissociate II

- Use of pro_i could allow 'de dicto' readings with mismatching judges
- (31) $[\![\text{uplifting } pro_z]\!]^{c,g} = \lambda y \lambda i$. 1 iff y is uplifting to g(z) in WORLD(i).

(33) $[x \text{ believe } \dots [DP \text{ an uplifting pro}_{Pascal} \text{ poncho }]\dots]^{c,\langle j,w\rangle} = 1 \text{ iff } \forall w' \in DOX_{x,w}$ $\exists z[z \text{ is a documentary in } w' \text{ and uplifting to Pascal } \dots]$

Can dissociate III

Bottom line

- Can dissociate theories overgenerate
- ► Similar problems: Stojanovic (2007); Sæbø (2009)

Necessarily dissociate I

- Refresher on Pearson's (2013a) system
- SPs are dyadic
- Judge is just a variable bound at LF by a high operator
- Judges and worlds are disjoint (same as in indexical contextualism: judges from the context, worlds from the index)
- Additionally: must be bound by closest binder (similar to Farkas/Percus constraints, but now for judges alone)
- (34) $[\lambda x....$ believe $[\lambda y....$ uplifting to y]
 - (ignoring the generic and the empathy relation)

Necessarily dissociate II

- '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

```
(35) [\lambda x. \ldots [\text{ uplifting to } y]_1 \text{ believe } [\lambda y. \ldots t_1]]
```

```
(36) Pascal:

[ the documentary in WORLD(i) uplifting to JUDGE(i) in WORLD(i) ]<sub>1</sub>

Mordecai believes

[ that t_1 is

depressing to JUDGE(i') in WORLD(i') ].
```

But scopal theories of 'de re' don't work!

Necessarily dissociate III

Bottom line

- Necessarily dissociate theories have to assume a scopal view on 'de re'
- Scopal view on 'de re' is known to be problematic
- Necessarily dissociate theories are problematic
- All such theories are contextualist

Summing up

SP non-exceptionalism

SPs 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
- If judges are part of the system, then they have to be part of the index

Part 2: Judge-free frameworks

Alternatives

- ► Standards of taste (MacFarlane 2014)
- ► Outlooks: refinements on worlds (Coppock 2018)
- Precisification of vague standards (Kennedy and Willer 2016)

Assessment relativism I

Key components

- Instead of judges, there are standards of taste
 - The truth varies not with individuals, but with standards of taste
 - ► A desirable effect (not mentioned explicitly by MacFarlane 2014): normativity of PPT statements
- Propositions are evaluated not only with respect to the context of utterance (=when things were said) but also with respect to the context of assessment

Assessment relativism II

- Regular conversation
 - A proposition is assessed at the same spatio-temporal point that the sentence is uttered
 - No need to differentiate between the two: a context of utterance is enough
- Special cases: SPs, epistemic modals ...
 - A proposition is evaluated for truth at a different point
 - Context of utterance is not enough

Assessment relativism III

Eavesdropping

Unintended audience

- ► Known since Hacking (1967): epistemics track a group's knowledge (≈ *given what we know*)
- ► The group includes the speaker and other interlocutors (cf. von Fintel and Gillies 2011)
- But not only

Assessment relativism IV

(37) SALLY. Joe might be in China. I didn't see him today.

GEORGE. Neither did I.

You. Forgive me for eavesdropping, but Joe can't be in

China. He doesn't have his visa yet.

Sally. Oh, really? Then I guess I was wrong.

(MacFarlane 2014:244)

► The eavesdropper was not meant to be a part of the conversation and is not part of the context of utterance

► The eavesdropper is included in the context of assessment

NB Intuitions about such cases vary (Knobe and Yalcin 2014)

Assessment relativism V

Retraction

Disagreement with one's former self

- ► SP claims made earlier can be retracted (MacFarlane 2014, though see Stephenson 2007a)
- (38) A. Fish sticks are not tasty.
 - B. But you said years ago that fish sticks were tasty.
 - A. ✓I take it back, they aren't tasty.
 - A'. # They were tasty then, but they aren't tasty any more.
 - A". # When I said that, I only meant that they were tasty to me then. (MacFarlane 2014:13-14)
 - MacFarlane (2014): retraction is obligatory when a proposition is not true anymore because the taste has changed (see discussion in Ninan 2016)

Assessment relativism VI

Bottom line

- A relativism framework without judges
- Other applications: tense, including historical present (Anand and Toosarvandani 2018)
- ► Bi-contextualism elsewhere: FID (Doron 1991; Sharvit 2008; Eckardt 2014 a.o.)

Roadmap

Day 4 The Acquaintance Inference: *tasty* only if I tried it Day 5 Subjective attitudes: *find, consider* and their like

References I

- Aloni, M. (2001). *Quantification under Conceptual Covers.* Ph. D. thesis, University of Amsterdam.
- Anand, P. (2009). Kinds of taste. Ms., UCSC.
- Anand, P. and N. Korotkova (2021). How to theorize about subjective meaning: A lesson from 'de re'. *Linguistics and Philosophy*. https://ling.auf.net/lingbuzz/005361.
- Anand, P. and M. Toosarvandani (2018). No explanation for the historical present: Temporal sequencing and discourse. In U. Sauerland and S. Solt (Eds.), *Proceedings of Sinn und Bedeutung 22*, pp. 73–90. ZAS.
- Bhatt, R. and R. Pancheva (2006). Conditionals. In M. Everaert and H. van Riemsdijk (Eds.), *The Blackwell Companion to Syntax*, Volume 1, pp. 638–687. Blackwell.
- Bylinina, L. (2017). Judge-dependence in degree constructions. *Journal of Semantics* 34(2), 291–331.
- Bylinina, L., Y. Sudo, and E. McCready (2014). The landscape of perspective-sensitivity. Talk presented at the workshop "Pronouns in embedded contexts at the syntax-semantics interface", University of Tübingen, November 7-9, 2014.

References II

- Charlow, S. and Y. Sharvit (2014). Bound 'de re' and the LFs of attitude reports. *Semantics and Pragmatics* 7(3), 1–43.
- Coppock, E. (2018). Outlook-based semantics. *Linguistics and Philosophy 41*(2), 125–164.
- Doron, E. (1991). Point of view as a factor of content. In S. Moore and A. Wyner (Eds.), *Proceedings of Semantics and Linguistic Theory 1*, pp. 51–64. Cornell University.
- Eckardt, R. (2014). The Semantics of Free Indirect Discourse: How Texts Allow Us to Mind-read and Eavesdrop. Leiden: Brill.
- Farkas, D. (1997). Evaluation indices and scope. In A. Szabolcsi (Ed.), Ways of Scope Taking, pp. 183–215. Dordrecht: Spiringer Netherlands.
- von Fintel, K. and A. S. Gillies (2011). 'Might' made right. In A. Egan and B. Weatherson (Eds.), *Epistemic Modality*, pp. 108–130. Oxford University Press.
- Fodor, J. D. (1970). *The Linguistic Description of Opaque Contexts*. Ph. D. thesis, Massachusetts Institute of Technology.
- Hacking, I. (1967). Possibility. The Philosophical Review 76(2), 143–168.

References III

- Hacquard, V. (2010). On the event relativity of modal auxiliaries. *Natural Language Semantics* 18(1), 79–114.
- Kennedy, C. and M. Willer (2016). Subjective attitudes and counterstance contingency. In M. Moroney, C.-R. Little, J. Collard, and D. Burgdorf (Eds.), Proceedings of the 26th Semantics and Linguistic Theory Conference, pp. 913–933.
- Keshet, E. (2008). Good intensions: Paving Two Roads to a Theory of the De re/De dicto Distinction. Ph. D. thesis, Massachusetts Institute of Technology.
- Keshet, E. (2010). Split intensionality: A new scope theory of *de re* and *de dicto. Linquistics and Philosophy 33*(4), 251–283.
- Keshet, E. and F. Schwarz (2019). De re / de dicto. In J. Gundel and B. Abbott (Eds.), *The Oxford Handbook of Reference*. Oxford University Press.
- Knobe, J. and S. Yalcin (2014). Epistemic modals and context: Experimental data. *Semantics and Pragmatics* 7(10), 10–21.
- Kölbel, M. (2004). Faultless diasgreement. *Proceedings of the Aristotelian Society 104*, 53–73.
- Lasersohn, P. (2005). Context dependence, disagreement, and predicates of personal taste. *Linguistics and Philosophy 28*(6), 643–686.

References IV

- MacFarlane, J. (2014). Assessment Sensitivity: Relative Truth and Its Applications. Oxford: Oxford University Press.
- McCready, E. (2007). Context shifting in questions and elsewhere. In E. Puig-Waldmuller (Ed.), *Sinn und Bedeutung (SuB) 11*, pp. 433–447.
- Moltmann, F. (2010). Relative truth and the first person. *Philosophical Studies* 150(2), 187–220.
- Moltmann, F. (2012). Two kinds of first-person-oriented content. *Synthese 184*(2), 157–177.
- Morzycki, M. (2016). *Modification*. Cambridge: Cambridge University Press.
- Musan, R. (1997). On the Temporal Interpretation of Noun Phrases. New York: Garland.
- Ninan, D. (2016). Assessment sensitivity: Relative truth and its applications. *Philosophical Review* 125(3), 439–447.
- Pearson, H. (2013a). A judge-free semantics for predicates of personal taste. *Journal of Semantics* 30(1), 103–154.
- Pearson, H. (2013b). The sense of self: topics in the semantics of de se expressions. Ph. D. thesis, Harvard.

References V

- Percus, O. (2000). Constraints on some other variables in syntax. *Natural Language Semantics* 8(3), 173–229.
- Percus, O. and U. Sauerland (2003). On the LFs of attitude reports. In M. Weisgerber (Ed.), *Proceedings of Sinn und Bedeutung 7*, pp. 228–242.
- Quine, W. V. O. (1956). Quantifiers and propositional attitudes. *Journal of Philosophy 53*, 101–111.
- Russell, B. (1905). On denoting. Mind 14(4), 479-493.
- Schaffer, J. (2011). Perspective in taste predicates and epistemic modals. In A. Egan and B. Weatherson (Eds.), *Epistemic modality*, pp. 179–226. Oxford University Press.
- Schwager, M. (2009). Speaking of qualities. In E. Cormany, S. Ito, , and D. Lutz (Eds.), *Proceedings of SALT 19*, pp. 395–412.
- Sharvit, Y. (2008). The puzzle of free indirect discourse. *Linguistics and Philosophy 31*(3), 353–395.
- Stephenson, T. (2007a). Judge dependence, epistemic modals, and predicates of personal taste. *Linguistics and Philosophy 30*(4), 487–525.
- Stephenson, T. (2007b). *Towards a Theory of Subjective Meaning*. Ph. D. thesis, Massachusetts Institute of Technology.

References VI

- Sæbø, K. J. (2009). Judgment ascriptions. *Linguistics and Philosophy 32*(4), 327–352.
- Stojanovic, I. (2007). Talking about taste: Disagreement, implicit arguments, and relative truth. *Linguistics and Philosophy 30*(6), 691–706.
- Zakkou, J. (2019). Faultless Disagreement: A Defense of Contextualism in the Realm of Personal Taste. Frankfurt am Main: Vittorio Klostermann.

Epistemics

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

Embedded epistemics: similarities with SPs

- ► Only local knower in main predicate position (Hacquard 2010; Stephenson 2007a on auxiliaries)
- (39) 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:
- (40) Jane thinks that an impossible SPEAKER thunderstorm is likely JANE.

Embedded epistemics: dissimilarities with SPs

- Non-local knowers do not force the DP to be construed 'de re':
- (41) Sue: Mary is certain that two things that might be vampires are werewolves.
 - The taster ≠ the knower (as we know from Stephenson 2007a for root cases)
- (42) Vampires **might**_{SPEAKER} be **scary**.
 - Suggests a distinct source for epistemic judges.