Day 2: Theoretical Landscape

An opinionated guide to the language of opinion

Natasha Korotkova[1] Pranav Anand[2]

[1] University of Konstanz

[2]UC Santa Cruz

ESSLLI 32

July 27, 2021

Desiderata for a theory

- Faultless disagreement
- Normative effect
- Non-autocentric uses
- Overt tasters

Preview of the theoretical landscape: How are opinions determined?

- **Contextualism**: by the context of utterance (Bhatt and Pancheva 1998; McCready 2007; Anand 2009; Moltmann 2010b; Schaffer 2011; Pearson 2013; Kennedy and Willer 2016; Zakkou 2019 a.o.)
- **Relativism**: by the context of assessment/index (Kölbel 2004; Lasersohn 2005, 2017; Stephenson 2007a,b; Sæbø 2009; Egan 2010; MacFarlane 2014; Bylinina 2017; Coppock 2018 a.o.)

Agenda for today

- Semantic background
- Judge-relativism (Lasersohn 2005, 2017; Stephenson 2007a,b)
- Sophisticated contextualism (Pearson 2013)

Semantic background

Core notions

- Indexicality
- Intensionality
- Shifted indexicality

Indexicality I

- Indexicals: *I, you, here, now*
- Indexicals vs. definite descriptions

(1) a. I am in Germany.

b. The speaker is in Germany.

(2) a. I always have brown hair.

b. The speaker always has brown hair.

(3) a. Pranav thinks that I have brown hair.
I = Natasha

b. Pranav thinks that the speaker has brown hair.
the speaker = someone else

Indexicality II

- Contexts and indices (in an intensional framework, Cresswell 1990)

(4) $[\![\cdot]\!]^{c,i,g}$

(5) Context: the situation of utterance
$c_k = \langle author, hearer, location, \ldots, world \rangle$

(6) Index: the circumstances of evaluation
$i_k = \langle t, w \rangle$

Indexicality III

- Indexicals: directly referential (Kaplan 1989; another term: rigid designators, like proper nouns)

(7) a. $[\![\text{ I }]\!]^{c,i,g} = \textsc{author}(c)$

b. $[\![\text{ you }]\!]^{c,i,g} = \textsc{hearer}(c)$

c. $[\![\text{ here }]\!]^{c,i,g} = \textsc{location}(c)$

- Unlike definite descriptions

(8) a. $[\![\text{ the speaker }]\!]^{c,i,g} =$
$\iota x\,[x \text{ is a speaker in } \textsc{world}(i) \text{ at } \textsc{time}(i)]$

b. $[\![\text{ the addressee }]\!]^{c,i,g} =$
$\iota x\,[x \text{ is an addressee in } \textsc{world}(i) \text{ at } \textsc{time}(i)]$

- Ignoring bound readings (Partee 1989; Cable 2005; Kratzer 2009; Wurmbrand 2015; Podobryaev 2017)

Indexicality IV

Defining properties (Schlenker 2011, 2018)

Sensitive to the context of utterance, and only to it

- Utterance-sensitivity

(9) a. **Natasha**: **I** am a vegetarian. 'I' = Natasha

b. **Pranav**: **I** am a vegetarian. 'I' = Pranav

- Insensitivity to quantification

(10) a. **Natasha**: At some point, **I** was tired. 'I' = Natasha

b. **Natasha**: At some point, **the speaker** was tired.
'the speaker' can be Natasha but does not have to be

(cf. Schlenker 2011:1570)

Indexicality V

Bottom line

- Indexicality is a special type of reference
- Most accounts capture it via direct referentiality

Indexicality VI

Intensionality I

- Speech and attitude verbs: intensional environments
- Classic semantics: quantifiers over possible worlds (Hintikka 1969)

(11) a. $[\![\text{ think }]\!]^{c,i,g} = \lambda p \lambda x.\ 1 \text{ iff } \forall i' \in \text{DOX}_{x,i}[\ p(i)\ ]$

b. $\text{DOX}_{x,i} = \{i' \mid i' \text{ is compatible with what } x \text{ thinks in } i\ \}$

(12) a. $[\![\text{ say }]\!]^{c,i,g} = \lambda p \lambda x.\ 1 \text{ iff } \forall i' \in \text{SAY}_{x,i}[\ p(i)\ ]$

b. $\text{SAY}_{x,i} = \{i' \mid i' \text{ is compatible with what } x \text{ said in } i\ \}$

- Lots of newer work on finer-grained semantics (Schlenker 2003; Anand and Nevins 2004; Kratzer 2006; Stephenson 2007a, 2010; Moulton 2009; Grønn and von Stechow 2010; Hacquard 2010; Anand and Hacquard 2013; Pearson 2015, 2016)

Intensionality II

- Non-indexicals in intensional environments

(13) $[\![$ Pranav thinks that the speaker has brown hair. $]\!]^{c,i,g}$
$= \forall i' \in \text{DOX}_{Pranav,i} : [\![$ the speaker has brown hair $]\!]^{c,i',g}$
$= 1$ iff $\forall i' \in \text{DOX}_{Pranav,i}$: [the speaker has brown hair in i']

- Indexicals in intensional environments

(14) $[\![$ Pranav thinks that I have brown hair. $]\!]^{c,i,g}$
$= \forall i' \in \text{DOX}_{Pranav,i} : [\![$ I have brown hair $]\!]^{c,i',g}$
$= 1$ iff $\forall i' \in \text{DOX}_{Pranav,i}$: [AUTHOR(c) has brown hair in i']

Intensionality III

Bottom line

Indexicals in English are not affected by intensional quantification

Shifted indexicality I

Upshot

True indexicals may switch reference in attitudes

- The phenomenon (Schlenker 1999; Anand and Nevins 2004; Deal 2020 a.o.)

(15) Korean (isolate; Korea)

John-i [Mary-ka **na-lul** cohahanta-ko] malhayssta.
John-NOM [Mary-NOM **I-ACC** like-COMP] said
NON-SHIFTED: 'John said that Mary likes me'.
SHIFTED: 'John said that Mary likes her (Mary)'. (Park 2015)

- Independent evidence that such clauses are not quotations (quotations are closed for syntactic and semantic operations; clauses with shifted indexicals aren't)

Shifted indexicality II

- Such pronouns are indexicals

(16) Korean

a. Definite description

Obama-ka malhal ttyay.mata **hwaca-nun** taythonglyeng-ita.
Obama-NOM speak whenever **speaker-TOP** president-be
'Whenever Obama speaks, the speaker is president.'
speaker = Obama

b. I

Obama-ka malhal ttyay.mata **na-nun** taythonglyeng-ita.
Obama-NOM speak whenever **I-TOP** president-be
'Whenever Obama speaks, I am president.' (Park 2015)
I ≠ Obama

Shifted indexicality III

- General consensus: shifted indexicality is handled by context-shifting operators (Anand and Nevins 2004; Anand 2006; Shklovsky and Sudo 2014; Deal 2020)
- Index

(17) $\mathrm{i}_k = \mathrm{c}^* = \langle \mathit{author}, \mathit{hearer}, \ldots, \mathit{world} \rangle$

- Monster

(18) $[\![\text{  } \ \phi \ ]\!]^{\mathbf{c},\mathbf{i},g} = [\![\phi]\!]^{\mathbf{i},\mathbf{i},g}$

Shifted indexicality IV

(19) Deriving indexical shift

a. Pranav thinks that I am a space alien.
SHIFTED: 'Pranav thinks that he {Pranav} is a space alien'.

b. LF: [Pranav thinks [ [I am a space alien]]

c. $[\![19a]\!]^{c,i,g}$
$= [\![$ think $]\!]^{\mathbf{c,i},g}$
$(\lambda i'.\ [\![$  [I am an alien] $]\!]^{\mathbf{c,i'},g})([\![\text{Pranav}]\!]^{\mathbf{c,i},g})$
$=$ 1 iff $\forall i'$ compatible with what Pranav thinks at i,
$[\![$  [I am an alien] $]\!]^{\mathbf{c,i'},g}$
$=$ 1 iff $\forall i'$ compatible with what Pranav thinks at i,
$[\![$ I am an alien $]\!]^{\mathbf{i',i'},g}$
$=$ 1iff $\forall i'$ compatible with what Pranav thinks at i,
AUTHOR(i') is an alien at i'

Shifted indexicality V

Bottom line

- Shifted indexicality is indexicality
- Shifted indexicals refer to a context
- Natural language has means of shifting the context

Could SPs be indexical? I

- Let us call it **indexical contextualism** (Kölbel (2004) calls such theories indexical relativism)

(20) $[\![\text{ delicious }]\!]^{c,i,g} = \lambda x.x$ is delicious to $\textsc{author}(c)$ in $\textsc{world}(i)$ at $\textsc{time}(i)$

- Any apparent problems?

Could SPs be indexical? II

- Faultless disagreement

(21) A. Oolong is delicious.

B. No, it isn't.

(22) A. I'm in Germany.

B. # No, I'm not.

Could SPs be indexical? III

- Normative effects

(23) a. I like oolong / Oolong tastes good to me.

b. Oolong is delicious.

- An illustration in the wild [external link]

Could SPs be indexical? IV

- Non-autocentric uses

(24) a. **Lorelai**: [The bridge] was sturdy and strong, made of this Japanese maple wood, which, it turns out, is exactly the kind of wood that attracts **beetles**. [...] Now we're gonna make it out of less **delicious**$_{BEETLES}$ wood.
(American TV series *Gilmore Girls*, Season 7, Episode 9)

b. Indexical contextualist:
Lorelai: Now we're gonna make it out of less **delicious to me** wood.

- Possible escape route: a separate treatment of autocentric vs. non-autocentric uses (cf. Dinges and Zakkou 2020)
- Perspectival flexibility more generally: the behavior in attitudes and questions

Could SPs be indexical? V

- Attitudes: relativization to the attitude holder

(25) a. **Pranav** thinks that this puerh is **delicious**$_{PRANAV}$.

b. Indexical contexualist:
Pranav thinks that this puerh is **delicious to me**.

- Could this be another instance of shifted indexicality (cf. Bylinina et al. 2014)? Yes, but no
  - Indexical shift highly constrained: not all indexicals, not all predicates, not all clause types (full story: Deal 2020)
  - SPs occur, and shift, in all intensional environments
  - The behavior of SPs in attitudes: unremarkable [Day 3]

Could SPs be indexical? VI

- Interrogatives: relativization to the addressee (an instance of the so-called interrogative flip, see discussion in Korotkova 2016; Zu 2018)

(26) *Context: my interlocutor is drinking spicy hot chocolate.*
Is it good/tasty?

- Indexicals—even those that shift in attitudes–never shift in questions (Korotkova 2020; pace McCready 2007)
- SPs are highly flexible in questions (shown already in Mitchell 1986)

Could SPs be indexical? VII

- Taking stock
  - Faultless disagreement ☹
  - Normative effect ☹
  - Non-autocentric uses ☹
  - Perspectival flexibility ☹

Could SPs be indexical? VIII

Bottom line

- Simple indexical contextualism does not work
- What does?

Judge-relativism

A taste of relativism (Lasersohn 2005) I

- PPTs express the same content
- Truth
  - depends on the index (=circumstances of evaluation)
  - varies with individuals
- Indices: minimally triples (cf. also Anand and Nevins (2004); Anand (2006) on individual coordinates of the index for indexical shift)

(27) Judge-enriched index (=centered world)
$i = \langle w, t, j \ldots \rangle$

- The SP-OP distinction: hard-wired in **semantics**

(28) $[\![\text{ deciduous }]\!]^{c,\langle w,t,j\rangle} = \lambda x.\ x \text{ is deciduous in } w \text{ at } t$

(29) $[\![\text{ fun }]\!]^{c,\langle w,t,j\rangle} = \lambda x.\ x \text{ is fun for } j \text{ in } w \text{ at } t$

A taste of relativism (Lasersohn 2005) II

- Faultless disagreement: unproblematic
- Truth:s relative to a judge
- Truth may vary with different judges (the speaker and the addressee)
- No contradictions arises (both can be true at the same time)

(30) ESSLLI is fun. $\hookrightarrow$ fun'(e)
$[\![\text{fun'(e)}]\!]^{c,\langle w,t,\text{j}\rangle} = 1$ iff e is fun for j in w at t

(31) ESSLLI is annual. $\hookrightarrow$ annual'(e)
$[\![\text{annual'(e)}]\!]^{c,\langle w,t,j\rangle} = 1$ iff e is annual in w at t

A taste of relativism (Lasersohn 2005) III

Bottom line

- Key idea: truth is relative to a non-indexical entity/individual
- Judge-dependence: key notion in a variety of frameworks
  (Stephenson 2007a,b; Stojanovic 2007; Sæbø 2009 a.o.)

Stephenson (2007a,b) I

Central idea

- Modification and extension of (Lasersohn 2005)
- Unification of SPs and epistemics (note: Stephenson talks about taste predicates, not SPs across the board)
- Related frameworks: Stojanovic 2007; Sæbø 2009

Stephenson (2007a,b) II

Key components

- Judge: parameter of evaluation (as per Lasersohn (2005))
- SPs are diadic: the taster is an argument (cf. Bylinina 2017)
- The taster:
  - a special pronoun PRO_j
  - a null referential pronoun
- Judge-dependence: arises only with PRO_j

(32) $[\![\text{ tasty }]\!]^{c,\langle w,t,j\rangle}$
$= [\![\text{ tastes good }]\!]^{c,\langle w,t,j\rangle}$
$= [\ \lambda x_e.\ [\ \lambda y_e.\ y \text{ tastes good to } x \text{ in } w \text{ at } t\ ]\ ]$

Stephenson (2007a,b) III

- Bare SPs: autocentric perspective
- The taster is the judge, typically the speaker

(33) a. $[\![\text{PRO}_j]\!]^{c,\langle w,t,j\rangle} = j$

b. $[\![\text{[This puerh] [is tasty PRO}_j\text{]}]\!]^{c,\langle w,t,j\rangle}$
$= [\![\text{ tasty }]\!]^{c,\langle w,t,j\rangle} ([\![\text{ PRO}_j]\!]^{c,\langle w,t,j\rangle}) ([\![\text{ this puerh }]\!]^{c,\langle w,t,j\rangle})$
$=1$ iff this puerh tastes good to j in w at t

Stephenson (2007a,b) IV

- The availability of non-autocentric readings: pragmatics (pure pragmatics in Lasersohn 2005)
- Non-autocentric tasters: a pronominal *pro*

(34) a. $[\![pro_x]\!]^{c,\langle w,t,j\rangle}$ = salient individual in c

b. $[\![$ [This puerh] [is tasty pro_{Pranav}] $]\!]^{c,\langle w,t,j\rangle}$
$=[\![$ tasty $]\!]^{c,\langle w,t,j\rangle}$ ($[\![pro_{Pr}]\!]^{c,\langle w,t,j\rangle}$) ($[\![$ this puerh $]\!]^{c,\langle w,t,j\rangle}$)
=1 iff this puerh tastes good to Pranav in w at t

Stephenson (2007a,b) V

- Overt tasters: *delicious for me*, *attractive for humans* ...
- Often used as evidence for a diadic treatment across the board (if it can be expressed overtly, it is there)

(35) a. $[\![\text{ for }]\!]^{c,\langle j,w,t\rangle} = [\lambda y_e.y]$

b. $[\![\text{ [This puerh] [is tasty for Pranav] }]\!]^{c,\langle w,t,j\rangle}$
$=[\![\text{ tasty }]\!]^{c,\langle w,t,j\rangle}$ ($[\![\text{ for Pranav }]\!]^{c,\langle w,t,j\rangle}$)
($[\![\text{ this puerh }]\!]^{c,\langle w,t,j\rangle}$)
=1 iff this puerh tastes good to Pranav in w at t.

Stephenson (2007a,b) VI

- Attitude reports: relativization to the attitude holder
- Attitude verbs quantify over centered worlds (cf. Lewis 1979)

(36) a. $\text{Dox}_{w,t,x} = \{\langle w', t', y\rangle$: is compatible with what x believes in w at t that they are y in w' at $t'\}$

b. $[\![\text{ think }]\!]^{c,\langle w,t,j\rangle}$
$= \lambda p.\lambda z.\forall\langle w', t', y\rangle \in \text{Dox}_{w,t,x} : p(w')(t')(x)$

- Judges: updated with the index, no complicated machinery

(37) a. [Pranav [thinks [[this puerh] [is delicious PRO_j]]]]

b. $[\![\text{(37a)}]\!]^{c,\langle w,t,j\rangle} = [\![\text{ thinks }]\!]^{c,\langle w,t,j\rangle}$
$(\lambda w''.\lambda t''.\lambda j''.[\![\text{ this puerh is delicious } \text{PRO}_j]\!]^{c,\langle w'',t'',j''\rangle})$
$([\![\text{ Pranav }]\!]^{c,\langle w,t,j\rangle})$
$= 1$ iff $\forall\langle w', t', x\rangle \in \text{Dox}_{w,t,Pranav}$:
the puerh is delicious to x in w' at t'

Stephenson (2007a,b) VII

- Epistemics: similar behavior (Hacquard 2006, 2010)

(38) Pranav claims that there might be water on Mars.
≈ For all Pranav knows, there might be water on Mars.

- The framework handles such data in the same fashion
- Key difference between SPs and epistemics: no overt tasters for *might* or *must*

Stephenson (2007a,b) VIII

- Full story: Day 3
  - No need for judges to explain the shift in attitudes
  - Worlds shift due to intensional quantification
  - Worlds and judges have to be bundled together due to independent constraints on worlds (Anand and Korotkova 2021)

Judge relativism: Taking stock I

- Faultless disagreement ✓
- Normative effect ☹
- Non-autocentric uses ✓
- Perspectival flexibility ✓

Judge relativism: Taking stock II

- Stephenson (2007a,b): no account of the normative effect
- Lasersohn (2005): variety of perspective
  - autocentric, judge anchored to the speaker
  - non-autocentric, judge anchored to a third party
  - acentric, no judge argument (≈ generic perspective)
- Still no explanation of the normative effect with **all** SP-claims

Judge relativism: Taking stock III

- Technical problem with Stephenson (2007a,b): overgeneration of *pro* insertion (Pearson 2013)

(39)
a. The tea that Pranav and I bought is delicious, # but I didn't like it.

b. Pranav knows that the tea is delicious, # but I didn't like it.

c. Pranav thinks that Natasha thinks that the tea is delicious, # but Natasha didn't like it.

- Pranav's perspective should be available (as a salient individual)
- More problems like this: Day 3 (Anand and Korotkova 2021)

Judge relativism: Taking stock IV

Bottom line

- Judge relativism: influential framework with known problems
- What are best avenues to solve them?

Sophisticated contextualism

Soph. contextualism: Pearson (2013) I

Point of departure

First-person genericity (cf. Moltmann 2010a, 2012)

(term *sophisticated contextualism from Coppock 2018*)

Soph. contextualism: Pearson (2013) II

Key components

- SPs as Individual-Level Predicates (ILPs) (again, discussion of taste predicates rather than SPs)
- ILPs as inherently generic
- The restrictor of the generic is bound
- Fully extensional system: lambda abstractors over individuals at the left periphery of each clause (root and embedded)

SPs as individual-level I

- **Stage-Level Predicates** (SLP): temporary properties

(40) *sick, hungry* ...

- **Individual-Level Predicates** (ILP): permanent properties

(41) *tall, smart* ...

- Fact about language, not concepts

(42) *sick* vs. *infirm*, *drunk* vs. *drunkard*

SPs as individual-level II

- Based on linguistic diagnostics of the ILP vs. SLP distinction in English (Carlson 1980), SPs are individual-level
- Modification by quantifiers

(43)
a. ✓Natasha is always hungry. SLP
b. # Natasha is always tall. ILP
c. # Grasshoppers are always delicious. PPT

SPs as individual-level III

- Existential constructions (*there*-codas ban ILPs, Milsark 1979)

(44)
a. ✓There were people sick/hungry. SLP
b. # There were people tall. ILP
c. # There were people smart / grasshoppers delicious. SP

- Have constructions

(45)
a. ✓The zoo had three tigers sick / attacking people. SLP
b. # The zoo had three tigers big. ILP
c. # The zoo had three tigers aggressive. SP

ILPs as generic

- Genericity: a type of universal quantification, e.g. English bare plurals or simple present (classic reference: Carlson and Pelletier 1995)

(46) Birds can fly. ≈ All birds can fly.

- Chierchia (1995): all ILPs are generic (though see Czypionka and Lauer 2017)

(47) a. Jane is tall.

b. LF: [Jane$_i$ [GEN [t_i is tall]]]

- Pearson (2013): SPs are also generic

(48) a. Puerh is delicious.

b. LF: [Puerh$_i$ [GEN [t_i is delicious]]]

- Other ways of deriving genericity of PPTs (Bhatt and Pancheva 1998; Keshet 2005; Anand 2009; Moltmann 2010a, 2012)

First-person orientation I

- The speaker's taste typically matter

(49) The tea is delicious, # but I don't like it.

- Non-autocentric readings: easier with a different species
- Pearson (2013): the speaker emphasizes with contextually salient tasters
- *Identify with* relation *I* to the restrictor of the generic

(50) *I(y,x,w)* iff *y* identifies with *x* in *w*

First-person orientation II

- Lambda abstractors at the left periphery of each clause
- Individual variables must be bound by the closest possible binder (cf. Percus (2000); Anand (2006); Hacquard (2010) for similar constraints)

(51) a. **Root position**:
$[\ \lambda_1\lambda_2\ w_2\ \ldots\ \text{GEN}\ [\ \ldots\ \text{SP}\ [\ I(y_1, x_4, w_2)\ ]\ ]\ ]$

b. **Embedded position**:
$[\ \lambda_1\lambda_2\ w_2\ \ldots$
$[\ \lambda_{21}\lambda_{22}\ w_{22}\ \ldots\ \text{GEN}\ [\ \ldots\ \text{SP}\ [\ I(y_{21}, x_4, w_{22})\ ]\ ]\ ]$

The mechanics I

- Putting moving parts together

(52) a. The puerh is delicious.

b. LF:
$\lambda_1\ \lambda_2\ w_2$ puerh λ_{10}
[GEN $\lambda_3\ w_3$ [t_{10} is delicious $I(y_1, x_4, w_2)$]]

c. $[\![\text{(52b)}]\!]^{c,g}$
$= \lambda y_1 \lambda w_2$. GEN_{x_4, w_3} [y_1 identifies with x_4 in w_2 $\rightarrow$
puerh is delicious to x_4 in w_3]

- Embedded clauses work the same way [type the derivation for *Pranav thinks that the puerh is delicious* in case you want to give it a try]

The mechanics II

- Faultless disagreement: dispute about domain of the generic
- Non-autocentric perspective: the speaker excluded from the domain of the generic when irrelevant

(53) Rotten flesh is delicious.
The speaker is not the target taster

Pearson (2013): Taking stock

- Faultless disagreement ✓
- Normative effect ✓
- Non-autocentric uses ✓
- Perspectival flexibility ?/✓

References I

Anand, P. (2006). *De de se*. Ph. D. thesis, Massachusetts Institute of Technology.

Anand, P. (2009). Kinds of taste. Ms., UCSC.

Anand, P. and V. Hacquard (2013). Epistemics and attitudes. *Semantics and Pragmatics 6*(8), 1–59.

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 A. Nevins (2004). Shifty operators in changing contexts. In R. B. Young (Ed.), *Semantics and Linguistic Theory 14*, pp. 20–37.

Bhatt, R. and R. Pancheva (1998). Genericity, implicit arguments, and control. In *Proceedings of Student Conference in Linguistics 7*.

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

Cable, S. (2005). Binding local person pronouns without semantically empty features. Ms., MIT.

Carlson, G. N. (1980). *Reference to Kinds in English*. New York: Garland.

Carlson, G. N. and F. J. Pelletier (Eds.) (1995). *The Generic Book*. Chicago and London: The University of Chicago Press.

Chierchia, G. (1995). Individual-level predicates as inherent generics. In G. N. Carlson and F. J. Pelletier (Eds.), *The Generic Book*, pp. 125–175. University of Chicago Press.

Coppock, E. (2018). Outlook-based semantics. *Linguistics and Philosophy 41*(2), 125–164.

Cresswell, M. J. (1990). *Entities and Indices* (1 ed.). Dordrecht / Boston / London: Kluwer Academic Publishers.

Czypionka, A. and S. Lauer (2017). '#Tall this week': experimental evidence for a false-implication account. Ms., University of Konstanz, version of September 19, 2017.

Deal, A. R. (2020). *Theory of Indexical Shift: Meaning, Grammar, and Crosslinguistic Variation*. Cambridge, MA / London: The MIT Press.

References III

Dinges, A. and J. Zakkou (2020). Taste, traits, and tendencies. *Philosophical Studies 178*(4), 1183–1206.

Egan, A. (2010). Disputing about taste. In R. Feldman and T. A. Warfield (Eds.), *Disagreement*, pp. 247–286. Oxoford University Press.

Grønn, A. and A. von Stechow (2010). Complement tense in contrast: The SOT parameter in Russian. In A. Grønn and I. Marjanović (Eds.), *Russian in Contrast. Grammar*, Volume 2 of *Oslo Studies in Language*, pp. 109–153.

Hacquard, V. (2006). *Aspects of Modality*. Ph. D. thesis, Massachusetts Institute of Technology.

Hacquard, V. (2010). On the event relativity of modal auxiliaries. *Natural Language Semantics 18*(1), 79–114.

Hintikka, J. (1969). Semantics for propositional attitudes. In J. Davis, D. Hockney, and W. Wilson (Eds.), *Philosophical Logic*, pp. 21–45. Dordrecht: Reidel.

Kaplan, D. (1977/1989). Demonstratives. In J. Almog, J. Perry, and H. Wettstein (Eds.), *Themes from Kaplan*, pp. 481–563. OUP.

References IV

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. (2005). A matter of taste. Ms.

Kölbel, M. (2004). Faultless disagreement. *Proceedings of the Aristotelian Society 104*, 53–73.

Korotkova, N. (2016). *Heterogeneity and universality in the evidential domain*. Ph. D. thesis, University of California, Los Angeles.

Korotkova, N. (2020). Interrogative flip and indexical shift are distinct phenomena. *Snippets 39*, 3–5.

Kratzer, A. (2006). Decomposing attitude verbs. Handout of a talk given at the Hebrew University of Jerusalem.

Kratzer, A. (2009). Making a pronoun: Fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry 40*(2), 187–237.

Lasersohn, P. (2005). Context dependence, disagreement, and predicates of personal taste. *Linguistics and Philosophy 28*(6), 643–686.

References V

Lasersohn, P. (2017). *Subjectivity and Perspective in Truth-Theoretic Semantics*. Oxford: Oxford University Press.

Lewis, D. (1979). Attitudes *de dicto* and *de se*. *Philosophical Review 88*(4), 513–543.

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.

Milsark, G. (1979). *Existential Sentences in English*. New York: Garland.

Mitchell, J. E. (1986). *The formal semantics of point of view*. Ph. D. thesis, University of Massachusetts, Amherst.

Moltmann, F. (2010a). Generalizing detached self-reference and the semantics of generic *one*. *Mind and language*.

Moltmann, F. (2010b). 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.

References VI

Moulton, K. (2009). *Natural Selection and the Syntax of Clausal Complementation.* Ph. D. thesis, UMass, Amherst.

Park, Y. (2015). Indexical shift and the long-distance reflexive *caki* in Korean. Ms., UMass.

Partee, B. H. (1989). Binding implicit variables in quantified contexts. In C. Wiltshire, B. Music, and R. Graczyk (Eds.), *Papers from the 25th Regional Meeting of the Chicago Linguistic Society*, pp. 342–365.

Pearson, H. (2013). A judge-free semantics for predicates of personal taste. *Journal of Semantics 30*(1), 103–154.

Pearson, H. (2015). The interpretation of the logophoric pronoun in Ewe. *Natural Language Semantics 23*(2), 77–118.

Pearson, H. (2016). The semantics of partial control. *Natural Language and Linguistic Theory 34*(2), 691–738.

Percus, O. (2000). Constraints on some other variables in syntax. *Natural Language Semantics 8*(3), 173–229.

Podobryaev, A. (2017). Three routes to person indexicality. *Natural Language Semantics 25*(4), 329–354.

References VII

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.

Schlenker, P. (1999). *Propositional attitudes and indexicality: a cross-categorial approach*. Ph. D. thesis, Massachusetts Institute of Technology.

Schlenker, P. (2003). A plea for monsters. *Linguistics and Philosophy 26*(1), 29–120.

Schlenker, P. (2011). Indexicality and *De Se* reports. In K. V. Heusinger, C. Maienborn, and P. Portner (Eds.), *Semantics: an international handbook of natural language meaning*, Volume 2, Chapter 61, pp. 1561–1604. Mouton de Gruyter.

Schlenker, P. (2018). Indexicals. In S. O. Hansson and V. F. Hendricks (Eds.), *Introduction of Formal Philosophy*, pp. 297–321. Springer.

Shklovsky, K. and Y. Sudo (2014). The syntax of monsters. *Linguistic Inquiry 45*(3), 381–402.

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 VIII

Stephenson, T. (2010). Control in centered worlds. *Journal of Semantics 27*(4), 409–436.

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.

Wurmbrand, S. (2015). Fake indexicals, feature sharing, and the importance of gendered relatives. Handout of a talk given at MIT Linguistics Colloquium.

Zakkou, J. (2019). *Faultless Disagreement: A Defense of Contextualism in the Realm of Personal Taste*. Frankfurt am Main: Vittorio Klostermann.

Zu, V. (2018). *Discourse Participants and the Structural Representation of the Context*. PhD dissertation, New York University, NY.

Judge-free frameworks

Refining worlds: Coppock (2018) I

- For Lasersohn, judges are entities that are bundled with worlds in the index (as happens with the coordinates of the context)
- Coppock (2018): "judges" should be thought of as different ways of resolving standards (like resolving vagueness)
- The cornerstone of the theory are *outlooks*, ways of precisifying all vagueness and implicit standards, including judges for SPs
- outlooks are thus analogous to precisifications in theories of vagueness

Refining worlds: Coppock (2018) II

- outlook-based model tuples contain coordinates for
  - W: set of possible worlds
  - Ω: set of outlooks, with a unique partition O
  - $\propto$: bijective function from W to O
- an *outlook* o is a **refinement** for world w iff $o \in \propto (w)$

Refining worlds: Coppock (2018) III

- all notions of truth are sensitive to outlooks, not worlds
  - propositions are sets of outlooks
  - p is **objective** iff every world's refinements agree on p
    $(\forall w \in W \forall o, o' \in\propto (w)((o \in p \wedge o' \in p) \vee (o \notin p \wedge o' \notin p))$
  - p is **discretionary** iff at least one world's refinements do **not** agree on p
    $(\exists w \in W \exists o, o' \in\propto (w)((o \in p \wedge o' \notin p) \vee (o \notin p \wedge o' \in p))$
  - p is **strongly discretionary** iff **no** world's refinements agree on p $(\forall w \in W \exists o, o' \in\propto (w)((o \in p \wedge o' \notin p) \vee (o \notin p \wedge o' \in p))$
  - subjective attitudes like *find* require their complements to be strongly discretionary