

Pseudo-*de re*, generalized*

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1 Attitudes and acquaintance

- As intensional contexts, attitude reports famously disallow various instances of replacement of co-extensional terms *salva veritate*:

- (1) a. John thinks he is holding a copy of *Absalom, Absalom*.
b. *Absalom, Absalom* is my least favorite novel.
c. $\not\rightarrow$ John thinks he is holding a copy of my least favorite novel.

- But sometimes such inferences seem perfectly reasonable—and this is generally the case for embedded indexicals in attitude reports (in familiar languages):

- (2) a. Coach to Anna: The French judge thinks you were the best!
b. Anna to Max: The French judge thinks I was the best!
c. Max to Sandra: The French judge thinks Anna was the best!

- When inferences of this type are justified, the standard explanation in the linguistics literature goes as follows:

- The reading in question is the *de re* reading, to be understood following Kaplan (1968) and Lewis (1979).
- The attitude holder-*res* relation is mediated by a function representing how the attitude holder is acquainted with or in ‘cognitive contact’ (Cresswell and von Stechow 1982) with the *res*
- This function maps the attitude holder to the *res* in the eval world, to various other individuals in the attitudinal alternatives

- (3) $[(2a)]^c(w)$ is defined iff c provides a suitable acquaintance based function f . When defined, it is true iff $f(FJ, w) = \underline{\text{addr}(c)} \wedge \forall \langle y, w' \rangle \in \text{DOX}(FJ, w) : f(y, w') \text{ is the best in } w'$

*Part of what I present here (as noted) is joint work with Aglaia von Gotz (philosophy, UC Berkeley). Thanks Aglaia! Other ideas were moved forward by conversations (more and less recent) with Márta Abrusán, Pranav Anand, Patrick Grosz, Clemens Mayr, Lorenzo Pinton, and Viola Schmitt. Thanks all!

- So, the indexical contributes outside the intensional environment, where replacements of co-extensional terms is permitted.

- Let’s call an element of an attitude report “exportable” if it can be replaced with a co-extensional element *salva veritate*

- Anand (2006): (unshifted) indexicals are always exportable.¹

- Prediction of the standard approach: exportable elements should be possible in attitude reports only when the attitude holder is acquainted with their referents.

- It has been known at least since Sosa 1970 that this prediction is false.

Some examples:

- (4) Sosa (1970: 890)

A sergeant consults with higher authority and is told that the shortest man in his platoon should go first. He returns to his platoon and says to the shortest man:

Shorty, they want you to go first.

- (5) Anand (2006: 20)

Following the local lottery, Mary expresses to me (with jealousy) how happy the winner must be to win all this money. Then, speaking with Bill, I discover that he is the winner, and that he is actually quite terrified of dealing with headaches that invariably follow lottery winners. I tell him:

Well, this will please Mary; she thinks you’re the happiest man in the world right now.

- (6) Sharvit (2018: 244)

Bill and Jane are in public area; Bill is a graduate student, Jane not. Announcement: Graduate students should see the registrar.

Jane to Bill: They just said that you should see the registrar.

¹“Unshifted indexicals in attitude contexts are interpreted *de re*” (p. 26).

(7) Recanati (2012: 152)

Ann is a 6-year-old girl, whom John has never met and whose existence he is unaware of. But John believes that every 6-year-old can learn to play tennis in ten lessons. So, meeting Ann, I tell her:

John believes that you can learn to play tennis in ten lessons.

(Also: Sosa 1970, Bonomi 1995, Sharvit 1998, Aloni 2005, Blumberg and Holguín 2018, Percus 2021, Blumberg and Lederman 2021, Tancredi and Sharvit 2022, Sharvit and Moss 2022, Benbaji-Elhadad 2023, Mayr and Schmitt 2024)

- Two general types of responses to these facts in the (recent) semantics literature:

I. Wholesale rejection of the Kaplan-Lewis analysis of exportable terms. A new semantics for attitude reports that doesn't connect exportability to acquaintance.

- Keep some form of descriptivism, reject acquaintance as a limit on admissible descriptions: Aloni (2005), Anand (2006), also Sosa (1970)
- Reject descriptivism; 'revisionist' semantics: Blumberg and Lederman (2021), Tancredi and Sharvit (2022), Benbaji-Elhadad (2023), Mayr and Schmitt (2024)

II. Keep the Kaplan-Lewis analysis and augment it: the acquaintance-based semantics is indeed right for some cases and a non-acquaintance-based semantics is right for others

- Sharvit (2018), Sharvit and Moss (2022), Kratzer (2022); related ideas in Gennari (2003)
- Terminology: semantic phenomena handled by the acquaintance based theory involve *de re* readings, those that fall under the non-acquaintance theory involve pseudo-*de-re* readings (Recanati 2012, Sharvit 2018)²

- Current project: motivate a theory of the second type

Plan:

- §2 Introduce a natural language attitude construction that does indeed behave as predicted by the Kaplan-Lewis acquaintance semantics
- §3 Exportability without acquaintance: the case for revisionism
- §4 “*De re* and *de se*” – what is the relationship?
- §5 Thoughts on acquaintance with times

²These authors credit this term to Kaplan (1989: n.71), who very briefly notes the idea that an attitude report might reflect a mix of perspectives without there being an adequate descriptivist semantics for it.

2 Prolepsis

2.1 Background

- Various language have an attitude-reporting construction syntacticians call *prolepsis*: the attitude V has an ‘extra’ argument, originating in the matrix clause (i.e., not moving there) and semantically connected to an embedded pronoun.

(8) German (Salzmann 2006: 153)

a. Von welchem Maler glaubst du, dass Petra ihn mag?
of which.dat painter think you, that Petra him likes?
Which painter do you think Petra likes?

b. ein Maler, von dem ich glaube, dass Petra ihn mag
a painter of who.dat I think that Petra him likes
a painter who I think that Petra likes

(9) Nez Perce (Penutian; USA; Deal 2018)

Mary-nim **Calvin-ne** pee-nek-se [*pro* pee-cepeqick-e
Mary-ERG Calvin-ACC 3/3-think-TAM [3SG 3/3-catch-TAM
'ek'eex-ne].
magpie-ACC]

Mary thinks Calvin caught a magpie.

- Also in English (see below), Hungarian (Márta Abrusán, p.c.), Dutch (Salzmann 2017b), Japanese (arguably; Takano 2003), Korean (Yoon 2007), Tiwa (Tibeto-Burman, Dawson and Deal 2019), Madurese (Austronesian; Davies 2005), Greenlandic (Inuit; Clem et al. In prep)

- Prolepsis has been studied primarily in terms of syntax (see Davies 2005, Salzmann 2006, 2017a,b, Lohninger et al. 2022, Zyman 2022), with only a few studies in semantic terms (Deal 2018, Dawson and Deal 2019, Gluckman 2024, Tsilia to appear)

- While the precise semantics associated with prolepsis varies across languages, it is often associated with *de re* readings.
- Classic work on *de re* readings draws them out with English prolepsis, or something in logic somewhat like it—e.g. *Ralph believes $\lambda x.x$ is a spy of Orcutt* (Quine 1956),³ *S believes about x that it is F* (Sosa 1970)

³Quine clarifies that “the barbarous usage illustrated [here] is not urged as a practical reform.”

- I will focus here on prolepsis in German, which has been thoroughly investigated by Salzmann (2006, 2017a,b)

2.2 Prologue: German ≠ English

- In syntactic terms, both German and English have prolepsis. But there are differences, some of which relate to meaning.
- Prolepsis in German marks the matrix object with *von* ‘of’. The *Von* phrase can occur post-verbally or fronted:

- (10) a. Ich glaube von ihm, dass er ein ganz guter Trainer ist.
I believe.1sg of he.dat that he a quite good coach be.3sg
lit. I believe of him that he is a pretty good coach. (Salzmann 2017b: 262)
- b. Von ihm glaube ich, dass er ein ganz guter Trainer ist.
of he.dat believe.1sg I that he a quite good coach be.3sg

- English typically features the *P about*, outside of technical usage in philosophy (which of course favors *of*)⁴

- (11) a. I believe about Kate that she won the Daughter-of-the-Year award.
(Davies 2005)
- b. I believe ??of Kate that she won the Daughter-of-the-Year award.

- (Non-semanticist/philosopher) speakers generally find English prolepsis with *of* stilted/technical; there is a risk that judgments reflect philosophical theorizing rather than true linguistic intuitions

The Wikipedia corpus has just 1 clear attestation of *x believe of y CP*, in a philosophical context (lottery paradox)

- Prolepsis is impressionistically more frequent in German, and sometimes grammatically required:

- Prolepsis is required for cross-clausal relativization in German (Salzmann 2006: 153) – it is ungrammatical to say the equivalent of ‘a painter who I think Petra likes’

⁴Zyman (2022) proposes that the ability to occur with proleptic *of*, rather than *about*, is a selectional property of *believe*, *suspect*, and *say*. *About* is still possible with these verbs, though, and is much more colloquial / less stilted.

- English prolepsis with *about* has a topic interpretation; the English proleptic object is “interpreted as a topic for the complement clause” (Branigan and Mackenzie 2002: 390; also Gluckman 2024). So long as the proleptic object can be understood as a topic in this way, English prolepsis with *about* is ok.

- (12) a. I believe about computers that everyone should buy a PC.
b. I believe about Modi that the Indian economy in trouble.⁵

- The role of the proleptic object and its relation to the embedded clause is different in German. There must be an embedded pronoun.⁶

- (13) Salzmann (2017b: 277,278)
- a. * Von Computern glaube ich, dass jeder einen PC kaufen
of computers.DAT believe I that everyone a PC buy
sollte.
should
lit. I believe of computers that everyone should buy a PC.
- b. Was Computer angeht, so finde ich, dass heutzutage
what computers concern.3sg prt find.1sg I that today
jeder einen PC kaufen sollte.
everyone a PC buy.inf should.3sg
'As for computers, I think that everyone should buy a PC these days.'

- And proleptic objects that make poor topics, e.g. negative quantifiers, are ok as proleptic objects in German but not English:

- (14) Max believes about that/#no actress that she is in that movie.
- (15) Ich glaube von keinem Holländer, dass er auch nur einen einzigen
I believe of no.dat Dutchman that he even only a single
Euro verschwenden würde.
Euro squander.inf would.3sg
lit. I believe of no Dutchman that he would squander even a single Euro.
(Salzmann 2017b: 295)

⁵This contrasts with a Tiwa example discussed in Dawson and Deal (2019).

⁶Landau (2009) has claimed that English prolepsis requires an embedded pronoun. I disagree. Landau did not control for topic status. Gluckman (2024) cites some bridging examples where a pronoun is not required in German. These may involve covert pronominal arguments to relational nouns.

2.3 Semantics of prolepsis in German

- German prolepsis imposes classic hallmarks of *de re* interpretation for the proleptic object—wide scope for a quantifier, existential import for a description

– Wide scope for a quantifier (Salzmann 2017b: 307-8,311)

- (16) a. Von [einem Mädchen] weiss ich, dass Peter es geküsst
of a.dat girl know.1sg I that Peter her kiss.ptcp
hat.
have.3sg
lit. Of a girl, I know that Peter kissed her.
i. ✓ I know that Peter kissed Anne.
ii. ✗ I know that Peter kissed a girl, but I don't know which one.
- b. [Ein Mädchen] weiss ich, dass Peter __ geküsst hat.
a girl know.1sg I that Peter kiss.ptcp have.3sg
A girl, I know that Peter kissed.
i. ✓ I know that Peter kissed Anne.
ii. ✓ I know that Peter kissed a girl, but I don't know which one.
- (17) a. Ich weiss von keinem Mitarbeiter, dass er katholisch ist.
I know.1sg of no colleague that he catholic be.3sg
“There is no colleague such that I happen to know about that col-
league that he is catholic.” (maybe some are catholic, maybe not)
- b. Ich weiss, dass kein Mitarbeiter katholisch ist.
I know.1sg that no colleague catholic be.3sg
I know that no colleague is catholic. (There are no catholic col-
leagues.)

(I.e. indefinite proleptic objects are ‘specific’, in Fodor’s (1970) terms)

– Existential import for a description (Salzmann 2006: 217-8)

(In Fodor’s terms: transparent)

- (18) a. Von [einer neuen Sekretärin] sagte Peter, dass er sie
of a.dat new secretary say.pst.3sg Peter that he her
suche.
seek.sbjv.3sg
lit. Of a new secretary, Peter said he was looking for her.

- i. ✓ Peter has a new secretary, and he said about that secretary that he is looking for her.
ii. ✗ Peter has not yet hired a secretary but has said that he is about to choose who to hire.
- b. [Eine neue Sekretärin] sagte Peter, dass er __ suche.
a.dat new secretary say.pst.3sg Peter that he seek.sbjv.3sg
A new secretary, Peter said he was looking for.
i. ✓ Peter has a new secretary, and he said about that secretary that he is looking for her.
ii. ✓ Peter has not yet hired a secretary but has said that he is about to choose who to hire.

- And there is something else, too. Salzmann hints at it with his comments:

- (19) a. Ich weiss von jedem Holländer, dass er ein Fahrrad hat.
I know.1sg of every.dat Dutchman that he a bike have.3sg
lit. I know of every Dutchman that he has a bike.
b. Ich weiss, dass jeder Holländer ein Fahrrad hat.
I know.1sg that every Dutchman a bike have.3sg
I know that every Dutchman has a bike.

“In the proleptic construction [(19a)], the speaker has knowledge about every single Dutchman that he owns a bike. It is as if he actually went to every Dutchman’s house to check. That reading is, of course, quite bizarre. No such effect is found in the normal complement clause construction [(19b)]. The speaker might have obtained this knowledge from statistics etc.” (Salzmann 2017b: 310)

- This interesting intuition would *not* be captured if we just treated the proleptic construction as requiring transparent evaluation of the NP *Holländer* and scope of the proleptic object’s quantifier *jede* ‘every’ over the verb:

- (20) a. $\lambda w.\forall z : dutchman(w)(z) \wedge \forall w' \in DOX(spkr_c, w)[z \text{ has a bike in } w']$
b. $\lambda w.\forall w' \in DOX(spkr_c, w)[\forall z : dutchman(w')(z) \wedge z \text{ has a bike in } w']$

- Both quantifiers are \forall , permuting them doesn’t change truth-conditions
- Since this is a first-person attitude report, evaluating ‘transparently’ vs. ‘opaquely’ yields no difference as to who is in the extension of *Holländer*
- So, if it’s just about scope and transparency, (19a,b) should be equivalent

(What follows in this section is joint work with Aglaia von Gotz)

- We suggest that the missing piece is exactly *acquaintance*: German prolepsis requires that the attitude holder be acquainted with the *res*

(21) After Sosa (1970: 891): An inspector with no particular knowledge of the individual soldiers stationed at a base is searching the soldiers' lockers. A spy and her accomplice see through a window how the investigator finds some incriminating evidence in the spy's footlocker. The accomplice says:

- Er weiss jetzt, dass du eine Spionin bist. Du musst fliehen.
he knows now that you a spy are you must flee
Now he knows you are a spy. You must run away.
- # Von dir weiss er jetzt, dass du eine Spionin bist. Du of you.dat knows he now, that you a spy are. you musst fliehen.
must flee

(22) Sharvit (2018: 244): Bill and Jane are in public area; Bill is a graduate student, Jane not. There is the following Announcement: "Graduate students should see the registrar." Jane turns to Bill and says:

- Sie sagten dass du die Beamt*in sehen sollst.
They say.past.3pl that you the registrar see should.3sg
They said that you should see the registrar.
- # Von dir sagten sie, dass du die Beamt*in sehen of you say.past.3pl they that you the registrar see sollst.
should.3sg
They said of you that you should see the registrar.

(23) After Recanati (2012: 152): Ann is a 6-year-old who Mary has never met and whose existence she is unaware of. Mary believes that every 6-year-old can learn to play tennis. Meeting Ann's parents, I tell them:

- Mary denkt, dass Ann Tennis spielen lernen kann.
Mary believes that Ann tennis play.inf learn.inf can.3sg
Mary believes that Ann can learn to play tennis.
- # Von Ann denkt Mary, dass sie Tennis spielen lernen kann.
of Ann thinks Mary that she tennis play.inf learn.inf can.3sg
Mary believes of Ann that she can learn to play tennis.

- The acquaintance requirement that vexed us before now becomes an asset, correctly predicting the infelicity of (21b), (22b), (23b):

(24) $\llbracket (23b) \rrbracket^c(w)$ is defined iff c provides a suitable acquaintance based function f . When defined, it is true iff $f(\text{Mary}, w) = \text{Ann} \wedge \forall \langle y, w' \rangle \in \text{DOX}(\text{Mary}, w) : f(y, w') \text{ can learn to play tennis in } w'$

... which makes it either *false* or *undefined* in the scenario above

- So we have found good use of the Kaplan-Lewis analysis! Acquaintance vindicated! ...but only in a limited case. If this is right for (21b), (22b), (23b), *it is wrong* for (21a), (22a), (23a), which are felicitous here⁷
- Something additional is needed for a full theory of exportable elements, e.g. the indexical *du* in (21a) or (22a)

3 Pseudo *de re*

- Two prominent families of non-acquaintance based semantics for exportable terms are:

1. 'Liberal descriptivism' (e.g. Sosa 1970, Aloni 2005, Anand 2006)

(25) Sosa (1970: 890):

"S believes about x that it is F if and only if there is a singular term α such that S believes $\ulcorner \alpha \text{ is } F \urcorner$, where α both denotes x and is a distinguished term.

What then is a distinguished term? This, I fear, is a wholly pragmatic matter which can change radically from one occasion to the next."

⁷Notably, English prolepsis with *about* falls in the class of examples that do *not* vindicate the theory:

- (1) Sharvit (2018: 244): Bill and Jane are in public area; Bill is a graduate student, Jane not. There is the following Announcement: "Graduate students should see the registrar." Jane turns to Bill and says: ✓ They just said about you that you should see the registrar.
- (2) Mary is a tennis expert who holds that every 6 year old can learn to play tennis, but no 5 year old can. Ann is a 6 year old child and Ari is a 5 year old child. Mary has no awareness of either child's existence. I say: ✓ Mary thinks about Ann that she can learn to play but about Ari that he can't.

2. Revisionism (e.g. Percus 2021, Blumberg and Lederman 2021, Tancredi and Sharvit 2022, Benbaji-Elhadad 2023, Mayr and Schmitt 2023)
- (26) “Speakers can amend the contents they report others as believing by revising the ascriber’s “real” beliefs in light of background information of their own. ... Revisionist reporting is used as a shorthand to communicate relevant aspects of the ascriber’s dispositions, very roughly, what the ascriber would believe if they were a part of our conversation, and knew what we know. In revisionist reports, we leave out the qualification that this is what the subject is merely disposed to believe, and report them as if it is what they do believe.” (Blumberg and Lederman 2021: 6)
- (27) Tancredi and Sharvit (2022: 6)
“a believes p is true iff p can be inferred by the local judge j from j’s hypothetical acceptance of a belief of a’s”
- The theories both can apply to cases in which there is a description that picks out the *res* in the attitude worlds (albeit, not necessarily an acquaintance-based one)
- (28) After Sosa (1970: 891): An inspector with no particular knowledge of the individual soldiers stationed at a base is searching the soldiers’ lockers. A spy and his accomplice see through a window how the investigator finds some incriminating evidence in the spy’s footlocker. The accomplice says:
 Now he knows you are a spy. You must flee.
- (29) Sosa-style analysis (liberal descriptivism): *the owner of the locker* is a singular term denoting the addressee; it’s a distinguished term (let’s say); the inspector knows \lceil the owner of the locker is a spy \rceil
- (30) Revisionist analysis (Tancredi and Sharvit-style)
 The inspector knows: *The owner of the locker is a spy* = q
 Speaker believes: *the owner of the locker* = *addr(c)* = r
 If the speaker hypothetically updated their knowledge state (which includes r) with q , it would follow that *addr(c)* is a spy
- But the theories come apart when a more involved inference is required to get from the “true attitude” to what is reported
- (31) From Percus (2021): Mary is flying in today on Flight AF 62. We are all eagerly awaiting her arrival. We know however that the departure was delayed and so we are not sure when exactly she will be getting in. At a certain point I remember that our friend John works at the airport, so I call him to ask if Flight AF 62 has landed. He says that he believes that in fact it has. I turn to you and tell you:
 John thinks that Mary has arrived.
- (32) From Sharvit (2018: 244): Bill and Jane are in public area; Bill is a graduate student, Jane not. There is the following Announcement: “Graduate students should see the registrar.” Jane turns to Bill and says:
 They just said you should see the registrar
- Here it is not clear what the relevant singular term (Sosa) / individual concept (Aloni) should be; the relevant attitude holders have no knowledge of the existence of the referents of *Mary*, *you* (exportable terms)
 - Revisionist approaches have no problem here: we still can take the complement clause to represent a mix of perspectives (ours and the attitude holder’s)
- The challenge for revisionist theories is to constrain the class of admissible revisions, a topic of active research
 - See Blumberg and Lederman (2021), Tancredi and Sharvit (2022), Mayr and Schmitt (2023) for proposals and discussion
 - I suggest that the empirical scope of the revisionist analysis (suitably constrained) is quite broad: *this is generally what is happening* with exportable terms in attitude reports, not Kaplan-Lewis acquaintance semantics.
 - “Pseudo-*de re*, generalized”:
 - *Yes* to the idea that acquaintance semantics is still required sometimes for exportable terms (with Sharvit 2018, Sharvit and Moss 2022, Kratzer 2022); this is what I mean about distinguishing ‘*de re*’ (with acquaintance) from ‘pseudo *de re*’ (without)
 - *No* to the idea that revisionism is a highly constrained/marginal phenomenon, or reflects non-literal meaning (Pearson and Roeper 2022), or that ‘run of the mill *de re* ascriptions require acquaintance’ (Kratzer 2022: 42) (assuming this is not a definitional claim)

- It is *de re* (with acquaintance), not pseudo DR, that is a highly (grammatically) constrained phenomenon – it is pseudo DR that is ‘run of the mill’, typically responsible for exportability

4 Implications: exportation and *de se*

- *De se* readings and their relation to exportability have been of interest to semanticists at least since Lewis (1979)
- Anand (2006) argues that *de se* readings of pronouns can come about linguistically in multiple ways, including
 - Via indexical shift
 - As a special case of a (Kaplan-Lewis) *de re* reading
- Consider the familiar fact that sentences with embedded third person pronouns are licit in reports of both *de se* and non *de se* attitudes:

(33) Peter thinks everyone loves him.

 - Context 1: Peter thinks, “everyone loves me”
 - Context 2: As a result of a major head injury, Peter has severe memory loss. Recovering in the hospital, he isn’t able to remember all his friends and family who love him and so feels quite alone. He also doesn’t remember what he looks like. To help him feel better, a nurse drops off a photo of himself surrounded by family and friends who love him. But this doesn’t help him, because he just thinks “everyone loves the guy in the picture, I wish I could be more like him.” (The nurse is disappointed: Peter thinks everyone loves him, but he doesn’t realize he is thinking about himself.)
- Suppose (with Anand 2006, Maier 2011) that both readings reflect Kaplan-Lewis *de re* semantics, where *him* is a *res*:

(34) $\llbracket (33) \rrbracket^{g,c}(w)$ is defined iff c provides a suitable acquaintance based function f . When defined, it is true iff $f(\text{Peter}, w) = \llbracket \text{him} \rrbracket^g \wedge \forall \langle y, w' \rangle \in \text{DOX}(\text{Peter}, w) : \forall z [z \text{ likes } f(y, w') \text{ in } w']$

(35) Possible acquaintance based functions provided by context:

- $f_1 = \lambda x. \lambda w. \iota z [x \text{ sees } z \text{ in the picture in } w]$
- $f_2 = \lambda x. \lambda w. \iota z [x = z]$

- We should expect a German version of this sentence with prolepsis to be good in both scenarios, then. But this is not what happens!⁸

(36) Von sich denkt Peter, dass alle Menschen ihn mögen.
of self thinks Peter that all people him like
lit: Peter thinks of himself that everyone likes him.

- ✓ Context 1
- ✗ Context 2

- Why does this construction, “built for *de re*”, force a *de se* reading? My suggestion: *the “SELF” acquaintance relation is always most salient*

- This means:

- Previous work discusses the “*de re* reading” and the “*de se* reading”, e.g. of *him* in (33). Refinement: the “*de re* reading” is pseudo-*de re*. If there were acquaintance semantics here, the *de se* reading would be required, as in (36)
- There are some elements of natural language, e.g. PRO, some shifty indexicals, some logophors, that require *de se* readings.

This type of requirement can in principle arise from acquaintance semantics + reflexivization ALONE (contra e.g. Maier 2011)

- If we pursued this type of analysis for, say, PRO, a prediction would be that the *de se* reading is *strongly favored*, not *grammatically required* – and there is some reason to think this is true:

(37) After Pearson and Roeper (2022): Mary enters her cookies into a baking competition, judged blind, for which she is also a judge. The prize is \$100. Blindfolded, she tastes her cookie. She does not recognize that it is her cookie. She says, “This is the best cookie. Whoever baked this deserves the prize.”

✓ Mary didn’t realise it, but she claimed PRO to deserve the prize.

- We need a theory of nonfinite subjects of attitude complements that explains why there is a very strong pressure for *de se* interpretation, albeit a defeasible one
- A way forward would be to interpret PRO like a bound proleptic object, with acquaintance

⁸The same is true of prolepsis in Nez Perce (and actually is how I came to this project).

5 Acquaintance with times (briefly)

- There is a tradition from the work of Abusch that connects the interpretation of certain embedded tenses to “*de re*” (Abusch 1997, Heim 1994, Sharvit 2018, Sharvit and Moss 2022, among others)
- This idea plays a central role in analyses of the ‘double access reading’ in English present under past:

(38) Sue told me she is pregnant (last Tuesday/#two years ago)

(39) $\llbracket (38) \rrbracket^{g,c}(w)$ is defined iff c provides a suitable acquaintance based function f . When defined, it is true iff there is a past time t_a such that $f(\text{Sue}, w, t_a) = \llbracket PRES \rrbracket^{g,c} \wedge \forall \langle y, w', t' \rangle \in \text{SAY}(\text{Sue}, w, t_a) : s$ is pregnant at $f(y, w', t')$ in w'

- Suppose tenses pick out intervals. ‘Double access’ comes from two constraints imposed on the interval picked out by the embedded tense:⁹

- It overlaps now: this is the meaning of the tense feature $\llbracket PRES \rrbracket^{g,c}$
- Sue is acquainted with it at attitude time: $f(\text{Sue}, w, t_a) = \llbracket PRES \rrbracket^{g,c}$
This means it cannot be entirely in her future

> This is again a place where acquaintance is doing predictive work.

- Suppose, then, we treat certain embedded tenses as receiving true, acquaintance-based *de re* readings. It does *not* follow that all temporal expressions are treated similarly...
- Non-tense temporal expressions show no similar ‘upper limit’ effect:

(40) a. Sue promised that she would bring me tomorrow’s paper.
b. I thought last week that I would be feeling more tired than this today.

- These terms are exportable:

(41) a. Day 1: Sue promised that she would bring me tomorrow’s paper.
b. Day 2: → Sue promised that she would bring me today’s paper.

⁹I present a version of this theory that Abusch discusses and rejects (though she endorses something conceptually similar). I don’t think her reasons for rejecting it hold up. (They relate to anaphora internal to the attitude, and temporal adverbs.) Happy to discuss.

- The idea that one cannot be acquainted with the future is brought up by Sosa (1970) as a reason to reject acquaintance as a limit on exportable terms.
- Given generalized pseudo *de re*, data like (40) are no surprise. Revisionism is involved. It is only in *the special case where acquaintance is actually required* (i.e., with tenses) that we see the limit to perspectively-non-future times.
- If we put a temporal expression in German prolepsis, we get a difference in the predicted direction, Aglaia reports:

(42) Ok: Von 1980 glaube ich dass mein Vater dann in NY war
of 1980 believe I that my father then in NY was
lit. I believe of 1980 that my dad was in NY then.

(43) Less good: Von 2030 glaube ich dass mein Vater dann in New York
of 2030 believe I that my father then in New York
sein wird
be will
lit. I believe of 2030 that my dad will be in NY then

6 Closing thoughts

- The idea that some reports are revisionist and some not is not new; see Gennari 2003, Kratzer 2022, Sharvit and Moss 2022
- But the perspective in this previous work is that the Kaplan-Lewis semantics is generally right, and that there are some limited exceptions.
- My view is the opposite:
 - The vast majority of examples of exportation that semanticists have studied involve revisionist mechanisms
 - It is in certain well-defined, relatively narrow corners of the grammar that an acquaintance requirement is actually imposed
- In previous work (Deal 2018) I have argued that languages can make use of multiple compositional paths to get to the same “*de re*” semantics—one semantics for exportation, two very different syntactic pathways to produce it

Why multiple paths, differing wildly in syntactic complexity, to the same end?

- I think now that exportation arises from quite different sources; it is not a unified phenomenon.
 - Imposing an acquaintance requirement wrt a the referent of a term requires grammatically singling out that term in some way; this is the source of “special syntax for *de re*”
 - But revisionism asks nothing of the syntax. No wonder, then, that exportability is so unconcerned with syntactic constraints!



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