Unifying the French evidential construction *on di(rai)t que*

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Background on evidential *on dit*

In French, *dire* ('say') combined with the indefinite 1.PL/3.SG pronoun *on* suggests its complement clause (**prejacent** p) is likely [7, 9, 2, 8]. Specifically in (1), *on dit* (indicative present) implies that its prejacent (indicative too) results from hearsay, i.e.:

(i) people other then the speaker had access to evidence supporting p, and endorse p;

(ii) the speaker did not have access to such evidence or does not fully endorse p, as shown by the possible continuation *but I don't agree* (adapted from [7]).

(1) On dit que Jean {✓est / ✗soit} malade,
ON say that Jean {✓is.IND / ✗be.SBJV} sick,
✓mais je ne suis pas d'accord.
✓but I NEG am NEG agreeing.
'People say Jean is sick, but I don't agree.'

(2) shows that *on dit* cannot be negated and retain the aforementioned reportive function.

(2) On dit **pas** que Jean {✗est[1] / ✗soit} malade.
ON say **NEG** that Jean {✗is.IND / ✗be.SBJV} sick.

Puzzles with Mood and Negation

The effect of Matrix Mood. *On dit* gets a different meaning when put in the *conditionnel* (glossed CND), which normally conveys future-in-past or counterfactuality in the consequent of conditionals [5], and so should not affect the core semantics of the verb. In (3), the reportive dimension of *on dit* seems lost, in that the speaker must have had evidence for p and endorses p ($\neg$(ii)).

(3) On **dirait** que Jean {✓est / ✗soit} malade,
ON **say.CND** that Jean {✓is.IND / ✗be.SBJV} malade,
✗mais je suis pas d'accord.
✗but I am NEG agreeing.
'Jean seems sick, but I think he is not.'

The effect of Embedded Mood. *On dirait* (CND), unlike its IND counterpart, can be negated and in that case embeds either an IND or a SBJV clause. In the IND case (4), the speaker can endorse the prejacent without a contradiction. The opposite holds in the SBJV case (5).

(4) On dirait pas que Jean **est** malade,
ON say.CND NEG that Jean **is.IND** sick,
✓mais moi je pense qu'il l'est.
✓but I I think that-he it-is.
'Jean does not seem sick, but I think he is.'

(5) On dirait pas que Jean **soit** malade,
ON say.CND NEG that Jean **be.SBJV** sick,
✗mais moi je pense qu'il l'est.
✗but I I think that-he it-is.
'Jean does not seem sick, but I think he is.'

Upshot. It was previously assumed *on dit* and *on dirait* were distinct idioms, the former with an evidential reading, the latter, with an epistemic reading akin to 'it seems'. **We propose that both forms are derived from the same core components, in particular, an evidential *dire* involving an accessibility relation which forces a homogeneity effect regarding the status of the prejacent in the accessible worlds.** We then split the puzzle into two subproblems, and show that both can be explained assuming **our sentences compete with structural alternatives varying in placement of negation, mood, and subject pronoun.**

Capturing Negation×Matrix Tense

Why is NEG+IND bad in the matrix clause of (2), while NEG+CND remains ok in (4-5)? **We suggest that (2), unlike (4-5), has a low-negation competitor expressing the same meaning, but in a way that better divides the labor between at-issue and presupposed material**. We define:

(6) $[\![\mathsf{M}_{\mathcal{E}}]\!]^{e^*} = \lambda\langle p, e, w\rangle.\ \forall\langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ p(e', w')$

(7) $[\![dire_{\text{ev}}]\!]^{e^*} = \lambda\langle x, p, e, w\rangle : e'' \sim e \text{ evidentially settles } p \text{ for } x \text{ in } w.\ \forall\langle e', w'\rangle \in \mathcal{E}(x, e'', w).\ p(e', w')$

(8) $\begin{pmatrix} e'' \text{ evidentially settles} \\ p \text{ according to x in w} \end{pmatrix} \Leftrightarrow \left\{ \begin{array}{l} \forall\langle e', w'\rangle \in \mathcal{E}(x, e'', w).\ p(e', w') \\ \vee\ \forall\langle e', w'\rangle \in \mathcal{E}(x, e'', w).\ \neg p(e', w') \end{array} \right\}$

(6) defines a covert evidential modal operator $\mathsf{M}_{\mathcal{E}}$ assumed to express CND in (4-5). It states that the prejacent holds for all world-event pair (henceforth **WEP**) $\langle e', w'\rangle$ compatible with the evidence received in $\langle e, w\rangle$ by the speaker of the utterance speech act e^*. (7) defines evidential *dire* (as opposed to speech act *dire*) and is inspired from [10]'s entries for clause-embedding verbs. *Dire* carries the homogeneity presupposition that the worlds-event pairs $\langle e', w'\rangle$ compatible with the evidence x (subject of *dire*) gets from event e'' (free variable) coocurring with the speech act event e in w, should all support or all reject the prejacent. *Dire* asserts that the prejacent holds for all WEP $\langle e', w'\rangle$ compatible with the evidence received by x in $\langle e'', w\rangle$.

Capturing the infelicity of (2). Because of its presupposition, (2) ends up meaning that *all* worlds compatible with *on*'s evidence, are s.t. Jean is not sick – which is equivalent to the denotation of the low-negation alternative (2′)

(2′) On dit que Jean est pas malade.
ON say that Jean is.IND NEG sick.

(2′) might be preferred because, unlike (2), its at-issue meaning (already universal) is not compatible with the negation of its presupposition. This in turn predicts (2) to be infelicitous under the evidential reading

Capturing the felicity of (4-5). The LF of (4-5) involves 2 layers of modality, coming from *dire* and $M_{\mathcal{E}}$:

[Neg [$M_{\mathcal{E}}$ [*on dit p*]]]

Assuming *dire*'s presupposition projects universally, (4-5) means that there is a WEP $\langle e', w'\rangle$ compatible with what the speaker has evidence for, s.t. *any* WEP $\langle e''', w'''\rangle$ compatible with the evidence *on* has access to from e'' co-occurring with e', is s.t. Jean is not sick. **Crucially, double modality breaks the equivalence between (4-5) and their low negation alternatives** (which are doubly universal on e' and e'''). (4-5) are thus predicted to be ok

Capturing Mood×Endorsement

Why can the speaker hold contradictory beliefs in (1-4) but not in (3-5) and why is SBJV only ok under negated *dire*? We assume:

1. **pronominal competition** between *on* (by default 1.PL=1.SG+3.INDEF) and *je* (1.SG) $\sqsubset$ *on*;
2. **mood competition** between IND, which presupposes the world under evaluation is in the Context Set (CS) of a salient speech act, and SBJV (presuppositionless)

The licensing of SBJV. The presuppositions contributed by the embedded IND after universal projection in (1)&(3) are:

(9) $\forall\langle e', w'\rangle \in \mathcal{E}([\![on]\!], e'', w).\ w' \in CS(\nu)$

(10) $\forall(\langle e', w'\rangle, \langle e''', w'''\rangle) \in \mathcal{E}(spk_{e^*}, e, w) \times \mathcal{E}([\![on]\!], e'', w').\ w''' \in CS(\nu)$

With ν a salient speech act, typically $\nu = e$. (9) says that all the WEPs compatible with the evidence received by *on* are epistemically possible – which is easily satisfied. Following the argument in [10], **SBJV in (1) is thus disfavored, as per *Maximize Presupposition!*** [4]. Same holds for (10) modulo an extra layer of quantification

The pattern of speaker endorsement. We posit that if $x \sqsubset y$, then y may receive more evidence than x alone and so $\mathcal{E}(x, e, w) \supseteq \mathcal{E}(y, e, w)$. $\forall$ being downward-monotone w.r.t. its restrictor, replacing *on* with *je* in (1) then leads to a stronger assertion and presupposition By pragmatic competition, one may then derive that either the presupposition or the assertion of (1)[*je*/*on*] is false, i.e.:

(i) **the speaker alone does not get enough evidence to settle whether or not Jean is sick;**

(ii) or some of the worlds compatible with that evidence are epistemically impossible (odd inference);

(iii) **or some of them are s.t. Jean is *not* sick.**

This derives the lack of speaker endorsement in (1). Likewise, replacing *on* with *je* in (3) leads to a stronger meaning, but due to the presence of an extra layer of universal quantification, the inferences derived by competition are weaker **Crucially, they leave space for WEPs compatible with the speaker's evidence to be s.t. the speaker endorses the prejacent**. Turning to (4-5), we do not have a full explanation for the observed contrast in speaker endorsement, but notice that replacing *on* with *je* in (4) is fine, while doing so in (5) is not. This is shown in (11)

(11) **Je** dirais pas que Jean {✓est / ✗soit} malade.
I say.CND NEG that Jean {✓is.IND / ✗be.SBJV} sick.

Thus, pronominal competition may affect (4) but not (5), potentially leading to a lack of speaker endorsement in the former, but not the latter.

[1] *est* is grammatically ok, but the sentence then means no one performs the speech act that amounts to saying *Jean is sick*. This is different from our target meaning, which does not highlighting the speech act *per se*, but instead focuses on what kind of conclusions about the prejacent can be drawn from the available evidence.

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[1] Patrick Dendale. “Evidentiality in French”. In: *Evidential Marking in European Languages*. De Gruyter, Mar. 2022. isbn: 9783110726077. doi: 10.1515/9783110726077-005. url: http://dx.doi.org /10.1515/9783110726077-005.

[2] Donka Farkas. “On the semantics of subjunctive complements”. In: *Romance languages and modern linguistic theory* (1992).

[3] Irene Heim. “Artikel und Definitheit”. In: *Semantics: An international handbook of contemporary research*. Ed. by Arnim Von Stechow and Dieter Wunderlich. Mouton de Gruyter, 1991.

[4] Sabine Iatridou. “The Grammatical Ingredients of Counterfactuality”. In: *Linguistic Inquiry* 31.2 (Apr. 2000). issn: 1530-9150. doi: 10.1162/002438900554352.

[5] R.S. Kayne. *French Syntax: The Transformational Cycle*. Current studies in Linguistics series. MIT Press, 1975. isbn:9780262110556.

[6] Myong Kim. “Une description des marqueurs évidentiels on dit que et on dirait

que”. In: *Travaux de linguistique* 48.1 (Feb. 2004). issn: 0082-6049. doi: 10.3917/tl.048.0041.

[7] Hans Kronning. “Evidentialité, rhétorique et ressemblance : on dirait qu’il va pleuvoir / une meute / du Bach”. In: *Bergen Language and Linguistics Studies* 13.1 (Aug. 2023). issn: 1892-2449. doi: 10.15845/bells.v13i1.3720.

[8] Corinne Rossari. “Valeur évidentielle et/ou modale de faut croire , on dirait et paraît”. In: *Langue française* n°173.1 (Mar. 2012). Issn: 0023-8368. doi: 10.3917/lf.173.0065.

[9] Philippe Schlenker. “The Lazy Frenchman’s Approach to the Subjunctive: Speculations on Reference to Worlds and Semantics Defaults in the Analysis of Mood”. In: *Romance Languages and Linguistic Theory 2003*. John Benjamins Publishing Company, 2005. doi: 10.1075/cilt.270.15sch.

[10] Tatiana Bondarenko. “Anatomy of an Attitude”. PhD thesis. MIT, 2022.

Unifying the French evidential construction *on di(rai)t que* Supplementary material to the poster

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1 Showing that (2) is equivalent to (2')

- The sentences (from the poster):

(2) # On dit **pas** que Jean est malade.
ON say **NEG** that Jean is.IND sick.

(2′) On dit que Jean est **pas** malade.
ON say that Jean is.IND **NEG** sick.

- Below are the key definitions (from the poster, presuppositions underlined for clarity). Note that because *dire* takes a world-even pair (WEP) as intensional argument, and that both the world and the event are independently useful in different places in its lexical entry, we need to adapt the definition of the evidential modal to act on world-event pairs as well.[1]

$$[\![\mathrm{M}_{\mathcal{E}}]\!]^{e^*} = \lambda\langle p, e, w\rangle. \quad \forall\langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ p(e', w')$$

$$[\![dire]\!]^{e^*} = \lambda\langle x, p, e, w\rangle : \underline{e'' \sim e \text{ evidentially settles } p \text{ for } x \text{ in } w}.\ \forall\langle e', w'\rangle \in \mathcal{E}(x, e'', w).\ p(e', w')$$

$$\left(\begin{array}{c} e'' \text{ evidentially settles} \\ p \text{ according to x in w} \end{array}\right) \iff \left\{\begin{array}{c} \forall\langle e', w'\rangle \in \mathcal{E}(x, e'', w).\ p(e', w') \\ \vee\ \forall\langle e', w'\rangle \in \mathcal{E}(x, e'', w).\ \neg p(e', w') \end{array}\right\} \iff \left(\begin{array}{c} e'' \text{ evidentially settles} \\ \neg p \text{ according to x in w} \end{array}\right)$$

- Computation of the meaning of the high-negation variant (2):

$$[\![on\ dit\ p]\!]^{e^*} = \lambda\langle e, w\rangle : \underline{e'' \sim e \text{ evidentially settles } p \text{ for } [\![\text{on}]\!] \text{ in } w}.\ \forall\langle e', w'\rangle \in \mathcal{E}([\![on]\!], e'', w).\ p(e', w')$$

$$[\![\textsc{Neg}\ on\ dit\ p]\!]^{e^*} = \lambda\langle e, w\rangle : \underline{e'' \sim e \text{ evidentially settles } p \text{ for } [\![\text{on}]\!] \text{ in } w}.\ \exists\langle e', w'\rangle \in \mathcal{E}([\![on]\!], e'', w).\ \neg p(e', w')$$

- Computation of the meaning of the low-negation variant (2′). Recall that evidentially settling p amounts to evidentially settling $\neg p$.

$$[\![on\ dit\ \textsc{Neg}\ p]\!]^{e^*} = \lambda\langle e, w\rangle : \underline{e'' \sim e \text{ evidentially settles } p \text{ for } [\![\text{on}]\!] \text{ in } w}.\ \forall\langle e', w'\rangle \in \mathcal{E}([\![on]\!], e'', w).\ \neg p(e', w')$$

- We see that (2) and (2′) are defined under the same conditions, i.e. when e'' is s.t. $\forall\langle e', w'\rangle \in \mathcal{E}([\![on]\!], e'', w).\ p(e', w') \vee \forall\langle e', w'\rangle \in \mathcal{E}([\![on]\!], e'', w).\ \neg p(e', w')$. Let's now show (2) and (2′) have same truth conditions.[2] We keep the content coming from the homogeneity presupposition underlined for clarity.

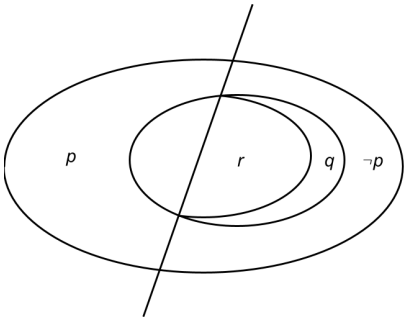
[1] Also, I want to add that using WEPs deviates from [Schlenker, 2005]'s original proposal, which was quantifying over events, and introducing worlds dependent on them. I used pairs for clarity, and also because I was a bit unclear with the nature of the event-world dependency in Schlenker's paper.

[2] I thank Ido Benbaji-Elhadad for helping me clarify my goal and reasoning here.

$$
\begin{aligned}
\text{(2) is true} &\iff && [\![\textsc{Neg}\ \textit{on dit}\ p]\!]^{e^*}\text{ is true}\\
&\iff && \left(\begin{array}{c}\cancel{\forall\langle e',w'\rangle \in \mathcal{E}([\![on]\!],e'',w).\ p(e',w')}\\ \underline{\vee\forall\langle e',w'\rangle \in \mathcal{E}([\![on]\!],e'',w).\ \neg p(e',w')}\end{array}\right) \wedge \exists\langle e',w'\rangle \in \mathcal{E}([\![on]\!],e'',w).\ \neg p(e',w')\\
&\iff && \forall\langle e',w'\rangle \in \mathcal{E}([\![on]\!],e'',w).\ \neg p(e',w') \wedge \exists\langle e',w'\rangle \in \mathcal{E}([\![on]\!],e'',w).\ \neg p(e',w')\\
&\iff && \forall\langle e',w'\rangle \in \mathcal{E}([\![on]\!],e'',w).\ \neg p(e',w')\\
&\iff && [\![on\ \textit{dit}\ \textsc{Neg}\ p]\!]^{e^*}\text{ is true}\\
&\iff && (2')\text{ is true}
\end{aligned}
$$

- Because both variants are equivalent, it is hard to tell at first blush why the high-negation variant (2) should be dispreferred.
- We want to argue (2) does not divide the labor so well between presupposition and assertion, and that (2′) does a better job doing so. The general schema we are interested in is the following:

$S : p.\ q$ vs. $S' : p.\ r$ with $\begin{cases} p \wedge q & \equiv & r \wedge q \\ r & \overset{\not\Leftarrow}{\Rightarrow} & q \end{cases}$



- Note that in our particular case, r is the assertion of (2′) and is incompatible with the negation of the homogeneity presupposition; while q is the assertion of (2) and is compatible with the negation of the homogeneity presupposition.
- We want to argue S' should be preferred to S, because the assertion of S' is less compatible with $\neg p$ (i.e. the undefinedness domain of both sentences) than S's assertion is.

$$S' : p.\ r > S : p.\ q \iff (r \wedge \neg p) \overset{\not\Leftarrow}{\Rightarrow} (q \wedge \neg p)$$

- Note that is equivalent to saying that r should asymmetrically entail q, but gives a motivation for this constraint: if two sentences presuppose the same thing ans assert the same thing granted their presupposition, then the last way to compare them from a pragmatic competition perspective is by looking at whether or not the assertions suggest the presupposition might not hold. The competitor whose assertion is the least confusing w.r.t. its presupposition, i.e. the least compatible with the negation of its presupposition, should be preferred. We think this can explain why (2) is disfavored.
- Note that this discussion seems reminiscent of Neg-raising effects associated with verbs like *believe*,[3] whereby *I don't believe John is sick* implies its low-negation alternative *I believe John is not sick*, if it is reasonable to think the speaker is opinionated about John's health, i.e. either believes John is sick, or believes he is not. In other words, Neg-raising verbs with high negation are not blocked by their low-negation alternative, which seems to contradict our claims. We think this difference with our account of *dire* might be explained if we buy the idea that the opinionatedness assumption that is needed to get the equivalence between the high- and low-negation forms in Neg-raising cases is either not a presupposition of the
textscNeg-raising verb [Fillmore, 1963, Collins and Postal, 2014, Gajewski, 2012, Romoli, 2013], or, maybe, a "soft"/"pragmatic" presupposition [Bartsch, 1973, Abusch, 2005, Gajewski, 2005] which is not subject to our pragmatic competition principle. This is wishy-washy, I know.

[3] I thank an anonymous reviewer for pointing this out to me.

2 Showing that (4-5) are not equivalent to their low-negation alternatives

- The sentences (from the poster):

(4) On dirait pas que Jean est malade.
ON say.CND NEG that Jean is.IND sick.
'Jean does not seem sick.'

(5) On dirait pas que Jean soit malade.
ON say.CND NEG that Jean be.SBJV sick.
'Jean does not seem sick.'

- Their low-negation alternatives:

(4′) On dirait que Jean est **pas** malade.
ON say.CND that Jean is.IND **NEG** sick.
'Jean does not seem sick.'

(5′) # On dirait que Jean soit **pas** malade.
ON say.CND that Jean be.SBJV **NEG** sick.
'Jean does not seem sick.'

- (5′) is infelicitous, probably due to the absence of matrix negation to license the embedded SBJV (cf. competition argument in [Schlenker, 2005], and next Section), so (5′) is predicted to be ok due to the absence of competition, and what is really left to be analyzed is the competition between (4) and (4′)

- The core structure of (4-5) (from the poster):

$$[\text{NEG } [M_{\mathcal{E}} \ [on \ dit \ p]]]$$

- We first compute the effect of the covert evidential modal $M_{\mathcal{E}}$ expressing CND on top of the core structure *on dit p*. We assume the presupposition of *dire* projects universally across the modal.

$$[\![\text{M}_{\mathcal{E}} \ on \ dit \ p]\!]^{e^*} = \lambda\langle e, w\rangle : \underline{\forall\langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ e'' \sim e' \text{ evidentially settles } p \text{ according to } [\![on]\!] \text{ in } w'.}$$
$$\forall\langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ \forall\langle e''', w'''\rangle \in \mathcal{E}([\![on]\!], e'', w').\ p(e''', w''')$$

- We then add negation. The homogeneity presupposition allows to see the lower existential as a universal, for the same reason as in Section 1.

$$\begin{aligned}[\![\text{NEG M}_{\mathcal{E}} \ on \ dit \ p]\!]^{e^*} &= \lambda\langle e, w\rangle : \underline{\forall\langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ e'' \sim e' \text{ evidentially settles } p \text{ according to } [\![on]\!] \text{ in } w'.} \\ &\qquad \exists\langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ \exists\langle e''', w'''\rangle \in \mathcal{E}([\![on]\!], e'', w').\ \neg p(e''', w''') \\ &= \lambda\langle e, w\rangle : \underline{\forall\langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ e'' \sim e' \text{ evidentially settles } p \text{ according to } [\![on]\!] \text{ in } w'.} \\ &\qquad \exists\langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ \forall\langle e''', w'''\rangle \in \mathcal{E}([\![on]\!], e'', w').\ \neg p(e''', w''')\end{aligned}$$

- And below is the computation of the low-negation competitor (recall that evidentially settling p amounts to evidentially settling $\neg p$). We end up with a doubly universally modalized statement, different from the high-negation one.

$$[\![\text{M}_{\mathcal{E}} \ on \ dit \ \text{NEG} \ p]\!]^{e^*} = \lambda\langle e, w\rangle : \underline{\forall\langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ e'' \sim e' \text{ evidentially settles } p \text{ according to } [\![on]\!] \text{ in } w'.}$$
$$\forall\langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ \forall\langle e''', w'''\rangle \in \mathcal{E}([\![on]\!], e'', w').\ \neg p(e''', w''')$$

3 Showing that SBJV is disfavored under negation in (1)&(3)

- Below is the presupposition we assume for IND ([Schlenker, 2005]). SBJV is assumed to be presuppositionless.

(6) $[\![\text{IND}]\!]^{e^*} = \lambda p.\ \lambda\langle e', w'\rangle : w' \in CS(\nu).\ p(e', w')$, where ν is a salient speech act.

- And a reminder of Maximize Presuppositions! [Heim, 1991, Sauerland, 2008]

(7) *Maximize Presupposition!*
If $S : p.\ q$ and $S' : p'.\ q$ with $p \Rightarrow p'$ and p is satisfied in context, then S should be preferred over S'

- For simplicity we ignore the effect of this presupposition on matrix predicates (*dit*/*dirait*); we focus on how this presupposition projects from the embedded clause and interacts with the semantics of the matrix predicate.

- The sentences (from the poster):

(1) On dit que Jean {✓est / ✗soit}
ON say that Jean {✓is.IND / ✗be.SBJV}
malade.
sick.
'People say Jean is sick.'

(3) On dirait que Jean {✓est / ✗soit}
ON say.CND that Jean {✓is.IND / ✗be.SBJV}
malade.
sick.
'Jean seems sick, but I think he is not.'

- Let's start with (1). We repeat the entry for *on dit p* from Section 1 and add embedded IND to it, assuming its presupposition (underlined) projects universally.

$$[\![\textit{on dit } p]\!]^{e^*} = \lambda\langle e, w\rangle : e'' \sim e \text{ evidentially settles } p \text{ for } [\![\text{on}]\!] \text{ in } w.\ \forall\langle e', w'\rangle \in \mathcal{E}([\![on]\!], e'', w).\ p(e', w')$$

$$[\![\textit{on dit } \text{IND } p]\!]^{e^*} = \lambda\langle e, w\rangle : e'' \sim e \text{ evidentially settles } p \text{ for } [\![\text{on}]\!] \text{ in } w \wedge \underline{\forall\langle e', w'\rangle \in \mathcal{E}([\![on]\!], e'', w).\ w' \in CS(\nu).}\ \forall\langle e', w'\rangle \in \mathcal{E}([\![on]\!], e'', w).\ p(e', w')$$

- The additional presupposition contributed by IND states that any WEP compatible with the evidence received by *on* in $\langle e'', w\rangle$ ($e'' \sim e$, settling p) is part of the context set of some salient speech act event ν (typically $\nu = e$ or e''), meaning, is epistemically possible given ν. If we assume that what is taken to be compatible with the available evidence is also epistemically possible (a.k.a.: "no crazy conjectures based on evidence") then, IND's presupposition is trivially satisfied. As a result, the IND-variant of (1) should always be preferred over its SBJV-variant. This kind of argument is closely following the ones made by [Schlenker, 2005] in non-evidential contexts. The argument might be a bit more shaky here though; it crucially depends on what we think should be included in a reasonable, evidence-based accessibility relation.

- Now turning to (3). We repeat the entry for *on dirait p* from Section 2 and add embedded IND to it, assuming its presupposition (underlined) projects universally.

$$[\![\text{M}_{\mathcal{E}}\ \textit{on dit } p]\!]^{e^*} = \lambda\langle e, w\rangle : \forall\langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ e'' \sim e' \text{ evidentially settles } p \text{ according to } [\![on]\!] \text{ in } w'.\ \forall\langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ \forall\langle e''', w'''\rangle \in \mathcal{E}([\![on]\!], e'', w').\ p(e''', w''')$$

$$[\![\text{M}_{\mathcal{E}}\ \textit{on dit } \text{IND } p]\!]^{e^*} = \lambda\langle e, w\rangle : \forall\langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ e'' \sim e' \text{ evidentially settles } p \text{ according to } [\![on]\!] \text{ in } w' \underline{\wedge\ \forall\langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ \forall\langle e''', w'''\rangle \in \mathcal{E}([\![on]\!], e'', w').\ w''' \in CS(\nu).}\ \forall\langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ \forall\langle e''', w'''\rangle \in \mathcal{E}([\![on]\!], e'', w').\ p(e''', w''')$$

- The only difference with the previous case is that the worlds that are epistemically possible (as per IND's presupposition) are compatible with the evidence *on* gets in WEPs that are themselves compatible with the evidence the speaker gets in a co-occurring event. The triviality of IND's presupposition remains, we think: worlds that are compatible with *on*'s evidence, given the speaker's evidence, should arguably not be unbelievable worlds.

4 Deriving speaker endorsement (or lack thereof) in (1)&(3)

- The sentences (repeated from previous Section and poster, with continuations):

(1) **On** dit que Jean est malade,
1.SG+3.INDEF say that Jean is.IND sick,
✓mais je ne suis pas d'accord.
✓but I NEG am NEG agreeing.
'People say Jean is sick, but I don't agree.'

(3) **On** dirait que Jean est
1.SG+3.INDEF say.CND that Jean is.IND
malade, ✗mais je suis pas d'accord.
sick, ✗but I am NEG agreeing.
'Jean seems sick, but I think he is not.'

- (1) is compatible with a *I don't agree* continuation, which means it does not imply that the speaker endorses the prejacent. (3) is incompatible with such a continuation, which means the speaker endorses the prejacent.

- Below are competitors of (1) and (3) where the subject *on* (assumed to be 1.SG+3.INDEF by default) is replaced with *je* (1.SG). We thus have $[\![je]\!] \sqsubset [\![on]\!]$.

(1′) **Je** dis que Jean est malade.
1.SG say that Jean is.IND sick.
'I say Jean is sick.'

(3′) **Je** dirais que Jean est malade.
1.SG say.CND that Jean is.IND sick.
'I'd say Jean sick.'

- We posit that if an individual y contains another individual x, y should be able to get more evidence than x within any given WEP, and therefore, the set of worlds compatible with y's evidence should end up being *contained* in the set of worlds compatible with x's evidence, which leave more possibilities open. This is expressed in (8a) below, with the special case of *je* vs. *on* in (8b)

(8) a. $x \sqsubset y \iff \forall \langle e, w\rangle.\ \mathcal{E}(y, e, w) \subseteq \mathcal{E}(x, e, w)$
b. $[\![je]\!] \sqsubset [\![on]\!] \iff \forall \langle e, w\rangle.\ \mathcal{E}([\![on]\!], e, w) \subseteq \mathcal{E}([\![je]\!], e, w)$

- Below are the computations for (1′)&(3′), obtained from the last Section by simply replacing $[\![on]\!]$ with $[\![je]\!]$.

$$[\![je\ dis\ \text{IND}\ p]\!]^{e^*} = \lambda\langle e, w\rangle : e'' \sim e \text{ evidentially settles } p \text{ for } [\![\text{je}]\!] \text{ in } w \wedge \underline{\forall \langle e', w'\rangle \in \mathcal{E}([\![je]\!], e'', w).\ w' \in CS(\nu).}$$
$$\forall \langle e', w'\rangle \in \mathcal{E}([\![je]\!], e'', w).\ p(e', w')$$

$$[\![\text{M}_{\mathcal{E}}\ je\ dis\ \text{IND}\ p]\!]^{e^*} = \lambda\langle e, w\rangle : \forall \langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ e'' \sim e' \text{ evidentially settles } p \text{ according to } [\![je]\!] \text{ in } w'$$
$$\underline{\wedge\ \forall \langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ \forall \langle e''', w'''\rangle \in \mathcal{E}([\![je]\!], e'', w').\ w''' \in CS(\nu).}$$
$$\forall \langle e', w'\rangle \in \mathcal{E}(spk_{e^*}, e, w).\ \forall \langle e''', w'''\rangle \in \mathcal{E}([\![je]\!], e'', w').\ p(e''', w''')$$

- We see that each time a set of the form $\mathcal{E}([\![je]\!], e, w)$ is introduced, it is to universally quantify on it. Because $\forall$ is downward-monotone w.r.t. its restrictor, we then get:

(9) a. Presupposition(1′) ⇒ Presupposition(1)
b. Assertion(1′) ⇒ Assertion(1)

(10) a. Presupposition(3′) ⇒ Presupposition(3)
b. Assertion(3′) ⇒ Assertion(3)

- Now we are now making the (perhaps debatable) assumption that if two sentences S and S' compete and S has both a stronger presupposition and a stronger assertion, then S should be preferred over S'. If S' is used anyway, then it must mean that either the assertion of S does not hold (∼implicature), or its presupposition does not hold (∼anti-presupposition) – or both.

- If $S = (1')$ and $S = (1)$, we derive the following inferences for (1):

(11) $e'' \sim e$ does not evidentially settle p for $[\![\text{je}]\!]$ in w
~~$\forall\, \exists \langle e', w' \rangle \in \mathcal{E}([\![je]\!], e'', w).\ w' \notin CS(\nu).$~~
$\vee\, \exists \langle e', w' \rangle \in \mathcal{E}([\![je]\!], e'', w).\ \neg p(e', w')$

- We think the middle inference about a world compatible with the evidence not being epistemically possible, is unlikely (cf. previous Section). We are then left with an inference saying that e'' does not allow *je* to settle the prejacent (i.e. there are worlds compatible with *je*'s evidence that are p, and some that are $\neg p$); or, an inference saying some worlds compatible with *je*'s evidence are $\neg p$. In any case, the prejacent cannot be fully endorsed by the speaker in any world compatible with the speaker's evidence.

- If $S = (3')$ and $S = (3)$, we derive the following inferences for (3):

(12) $\exists \langle e', w' \rangle \in \mathcal{E}(spk_{e^*}, e, w).\ e'' \sim e'$ does not evidentially settle p according to $[\![je]\!]$ in w'
~~$\forall\, \exists \langle e', w' \rangle \in \mathcal{E}(spk_{e^*}, e, w).\ \exists \langle e''', w''' \rangle \in \mathcal{E}([\![je]\!], e'', w').\ w''' \notin CS(\nu)$~~
$\vee\, \exists \langle e', w' \rangle \in \mathcal{E}(spk_{e^*}, e, w).\ \exists \langle e''', w''' \rangle \in \mathcal{E}([\![je]\!], e'', w').\ \neg p(e''', w''')$

- We discard the middle inference for the same reason as before. We are left with two doubly existential inferences, that give rise to something weaker: there is an event compatible with the speaker's evidence s.t. some co-occurring event e'' does not allow the speaker to evidentially settle p, or, s.t. p does not holds of the WEPs compatible with the evidence in e''. But this does not disallow another event to contraint e'' differently and allow the prejacent to be endorsed given the alternative evidence from e''. So we think this inference is not enough to allow a continuation of (3) of the form *I don't agree.*

References

[Abusch, 2005] Abusch, D. (2005). Triggering from alternative sets and projection of pragmatic presuppositions. Ms. Cornell University.

[Bartsch, 1973] Bartsch, R. (1973). "negative transportation" gibt es nicht.

[Collins and Postal, 2014] Collins, C. and Postal, P. M. (2014). *Classical NEG Raising: An Essay on the Syntax of Negation.* MIT Press, Cambridge, MA.

[Fillmore, 1963] Fillmore, C. J. (1963). The position of embedding transformations in a grammar. *WORD*, 19(2):208–231.

[Gajewski, 2005] Gajewski, J. R. (2005). *Neg-Raising: Polarity and Presupposition.* PhD thesis, MIT.

[Gajewski, 2012] Gajewski, J. R. (2012). *Soft but Strong. Neg-raising, Soft triggers, and Exhaustificationn.* PhD thesis, Harvard.

[Heim, 1991] Heim, I. (1991). *Artikel und Definitheit*, pages 487–535. Mouton de Gruyter.

[Romoli, 2013] Romoli, J. (2013). A scalar implicature-based approach to neg-raising. *Linguistics and Philosophy*, 36(4):291–353.

[Sauerland, 2008] Sauerland, U. (2008). *Implicated Presuppositions*, page 581–600. Walter de Gruyter.

[Schlenker, 2005] Schlenker, P. (2005). *The Lazy Frenchman's Approach to the Subjunctive: Speculations on Reference to Worlds and Semantics Defaults in the Analysis of Mood*, page 269–309. John Benjamins Publishing Company.