TENSE USE IN DISCOURSE AND DIALOGUE: A PARALLEL CORPUS APPROACH

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Time in Translation project

- **Aim** of the project: a cross-linguistically robust semantics and pragmatics of the PRESENT PERFECT.

- **Theoretical motivation:** no agreement in the literature on compositional semantics, dynamic semantics and pragmatics of the PRESENT PERFECT (Portner 2003, 2012, Nishiyama & Koenig 2010, Kamp et al. 2015, ...)

- **Empirical motivation:** widespread diachronic and synchronic variation in the distribution of the PERFECT: competition with the PRESENT on the one hand, and with the PAST on the other (Bybee et al. 1989, Ritz 2012, de Swart 2007, Schaden 2009, Dahl & Velupillai 2013).
**Have PERFECT**

- Morpho-syntax: auxiliary (*have/be*) + past participle.
- Core of PERFECT meaning: past event + present state.

1) Mary *has visited* Paris.  
   (her past visit to Paris is relevant now)  
   [existential perfect]

2) Mary *has moved* to Paris.  
   (she currently lives in Paris)  
   [resultative perfect]

3) Mary *has been living* in Paris since 2010.  
   (she currently lives in Paris)  
   [continuative perfect]

4) Malcolm X *has just been assassinated.*  
   ['hot news’ perfect]
Theoretical starting point

  - Sara *left* the party.  Past tense  E,R – S
  - Sara *has left* the party.  Present Perfect  E – R,S

- Partee (1973): morphological tenses (*-ed PAST*) are anaphoric/definite, periphrastic tenses *have* + past participle (*PERFECT*), *will* + infinitive (*FUTURE*) are quantificational/indefinite.
Semantics constrains PERFECT distribution

- **Sentence-level:** R at speech time restricts time adverbials:
  - Sara *left* the party at 6 o’clock.
  - *Sara has left* the party a 6 o’clock. (in British English)
  - Sara has just left.

- **Discourse-level:** R at speech time blocks anaphoricity, predicts no narrative use. No sequence of events with *Present Perfect* in narrative discourse or *when*-clauses:
  - When John noticed me, he greeted me.
  - *?When John has noticed me, he has greeted me.

- **Problem: 1** cross-linguistic variation: criteria work for English, not universally.

- **Problem 2:** if not narration, what is the pragmatic role of the PERFECT?

- Portner (2003): *Present Perfect* is used to answer the question under discussion.

  Q: We need to get an explanation of George Eliot’s style. Who can we ask?

  A: Well, George Eliot wrote *Middlemarch*, and if someone read an author’s book, they understand her style. Unless they are stupid, of course. Mary is smart, and she *has read Middlemarch*.

- Extended *now* theory of the PERFECT, temporal semantics, modal pragmatics. A sentence S of the form $\text{PERFECT}(\phi)$ presupposes $\exists q (\text{ANS}(q) \& \text{P}(p,q))$, where p is the proposition expressed by $\phi$, and ANS is true of any proposition which answers the question under discussion, and P is a modal operator similar to epistemic *must*. 
Pragmatics of *Present Perfect*: Nishiyama & Koenig (2010)

- Nishiyama & Koenig (2010): *Present Perfect* may be used for topic negotiation.

  Q: *Have you seen* *Dances with wolves*? (= I want to talk about movies)

  A: Yeah, I’ve seen that. That was a really good movie.

- DRT analysis of the *PERFECT*; introduced both an event and a *PERFECT* state, with underspecified pragmatic relation between *e* and *s*, resolved in discourse context.
Central research questions:
- What is the distribution of PRESENT, PAST and PRESENT PERFECT in discourse and dialogue?
- How can cross-linguistic variation inform us of the semantics and pragmatics of the PERFECT?

Answers based on:
- Parallel corpus approach: translation = same meaning in context, different forms across languages.
- Data-driven: search for tense forms in one language, align with translations, annotate with language specific labels.
- Analyze data patterns to find linguistic generalizations.
Harry Potter corpus

- J.K. Rowling (1997) *Harry Potter and the Philosopher’s Stone* is a well known novel: translations available in many languages.

- Parallel corpora are typically based on written language (translations!); few options for spoken language.

- *Harry Potter* contains both narrative parts and dialogue: controlled setting for studying tense use across languages in both registers.

- Translations used for this talk: Dutch, German, Spanish, French, Italian.

- Corpus consists of Chapters 1+17 (first and last).
Data collection

- Convert the original and its translations into electronically readable documents.
- Select all sentences containing a finite verb form from chapters 1+17.
- Align the sentences with their translations in Dutch, German, Spanish, French and Italian (TimeAlign).

Algorithms created by the Digital Humanities Lab of Utrecht University
After all he's done ... all the people he is killed ... he couldn't kill a little boy?

Nach all dem, was er getan hat - nach all den Menschen, die er umgebracht hat - , konnte er einen kleinen Jungen nicht töten?

- The selected words in the original fragment do not form an instance of (a/an) present perfect
- This is a correct translation of the original fragment
- The selected words in the original fragment are incorrectly marked as dialogue
- The translated fragment is not in the same structure (dialogue/narrative) as the original fragment

Comments:

https://time-in-translation.hum.uu.nl/timealign/edit/31257/
Tense annotation

- Select the verbs in the translation (TimeAlign). Unclick ‘this is a correct translation’ if the translation contains other forms than verbs (nominalizations, adjectives, etc.).

- Maintain only complete tuples (verbs in all languages).

- Label the tense forms (language specific morpho-syntactic labels): Present Perfect, Simple Past, Pretérito Indefinido, Präteritum, Onvoltooid Verleden Tijd, etc.
<table>
<thead>
<tr>
<th>English</th>
<th>Dutch</th>
<th>German</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple past</td>
<td>551</td>
<td>ovt</td>
<td>550</td>
</tr>
<tr>
<td>Simple present</td>
<td>129</td>
<td>ott</td>
<td>167</td>
</tr>
<tr>
<td>Past continuous</td>
<td>43</td>
<td>vtt</td>
<td>60</td>
</tr>
<tr>
<td>Past perfect</td>
<td>31</td>
<td>vvt</td>
<td>38</td>
</tr>
<tr>
<td>Present perfect</td>
<td>27</td>
<td>imperatief</td>
<td>24</td>
</tr>
<tr>
<td>Imperative</td>
<td>25</td>
<td>ovtt</td>
<td>18</td>
</tr>
<tr>
<td>Future in the past</td>
<td>20</td>
<td>ottt</td>
<td>9</td>
</tr>
<tr>
<td>Simple future</td>
<td>20</td>
<td>infinitief</td>
<td>2</td>
</tr>
<tr>
<td>Present continuous</td>
<td>11</td>
<td>Teg. deelwrd</td>
<td>1</td>
</tr>
<tr>
<td>Present perf. cont.</td>
<td>4</td>
<td>Total: 869 datapoints</td>
<td></td>
</tr>
<tr>
<td>Future in the past</td>
<td>3</td>
<td>green = simple/perfective past, green =</td>
<td></td>
</tr>
<tr>
<td>Past perf. cont.</td>
<td>3</td>
<td>imperfective past, blue = present perfect,</td>
<td></td>
</tr>
<tr>
<td>Fut in past cont.</td>
<td>2</td>
<td>red = pluperfect, orange = present</td>
<td></td>
</tr>
<tr>
<td>Spanish</td>
<td>French</td>
<td>Italian</td>
<td></td>
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<tr>
<td>-----------------------------</td>
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<td>---</td>
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<tr>
<td>Pretérito indefinido</td>
<td>Passé simple</td>
<td>Passato remoto</td>
<td>425</td>
</tr>
<tr>
<td>Pretérito imperfecto</td>
<td>Imparfait</td>
<td>Imperfetto</td>
<td>164</td>
</tr>
<tr>
<td>Presente</td>
<td>présent</td>
<td>Presente</td>
<td>126</td>
</tr>
<tr>
<td>Imperativo</td>
<td>Passé composé</td>
<td>Passato prossimo</td>
<td>25</td>
</tr>
<tr>
<td>Pret. perfecto comp.</td>
<td>Plus-que-parfait</td>
<td>Trapassato pross.</td>
<td>23</td>
</tr>
<tr>
<td>Pret. pluscuamperf.</td>
<td>impératif</td>
<td>Futuro semplice</td>
<td>19</td>
</tr>
<tr>
<td>Subj. pret. imperf.</td>
<td>Subjon. Présent</td>
<td>Coniunt. Imperf.</td>
<td>15</td>
</tr>
<tr>
<td>Futuro imperfecto</td>
<td>Futur simple</td>
<td>Condit. passato</td>
<td>13</td>
</tr>
<tr>
<td>Condicional simple</td>
<td>Futur proche</td>
<td>Coniunt. trapass.</td>
<td>13</td>
</tr>
<tr>
<td>Subj. presente</td>
<td>gérondif</td>
<td>infinito</td>
<td>11</td>
</tr>
<tr>
<td>Estar+gerundio</td>
<td>Condit. présent</td>
<td>Stare (imp) + ger.</td>
<td>8</td>
</tr>
<tr>
<td>Futuro próximo</td>
<td>Condit. passé</td>
<td>Gerundio presente</td>
<td>7</td>
</tr>
<tr>
<td>Subj. pret. plusc.</td>
<td>infinitif</td>
<td>Coniunt. presente</td>
<td>6</td>
</tr>
</tbody>
</table>
Descriptive statistics

- Most frequent tense forms are **PERFECTIVE** and **IMPERFECTIVE PAST** (480-590 occurrences combined per language), followed by **PRESENT** (126-167 occurrences). **PLUPERFECT** has 20-40 occurrences.

- **PRESENT PERFECT** has low number of occurrences in English, (27) Spanish (23), high number in French (99) and Italian (93). Dutch (60) and German (78), are in between.

- But: numbers so for the corpus as a whole. Does the linguistic environment make a difference? Split the data into discourse and dialogue.
Discourse and dialogue

- Algorithm that selects as dialogue text parts that appear between quotation marks. Remaining text is discourse.

<table>
<thead>
<tr>
<th>dialogue</th>
<th>discourse</th>
<th>dialogue</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘You can’t blame them’,</td>
<td>said Dumbledore gently.</td>
<td>‘We’ve had precious little to celebrate for eleven years.’</td>
</tr>
</tbody>
</table>

- Split the data: tense use in discourse (513 datapoints) and dialogue (356).
Descriptive statistics: discourse
Descriptive statistics: dialogue
From statistics to language use in context

- Limits of descriptive statistics: global tendencies at the level of the discourse/dialogue grammar.

- Principle of isomorphism (Haiman 1985): variation in form reflects variation in meaning.


- The algorithm is based on similarities and dissimilarities between verb forms to regroup contexts in a two-dimensional space: tuples that pattern alike are regrouped in the same area of the map, tuples that behave differently are regrouped in different areas of the map.

- Multilingual comparison over many contexts.
Each row represents a context (verbal form of source language + translation). The comparison between contexts is based on a distance measure: two differences in form means there is a distance of 3/5 between the tuples 1 and 2, distance 2/5 between 1 and 3, distance 5/5 between tuples 2 and 3.
Temporal map of English narration (finite, indicative only)
Temporal map of Dutch narration (finite, indicative only)
Temporal map of German narration (finite, indicative only)
Temporal map of Spanish narration (finite, indicative only)
Temporal map of French narration (finite, indicative only)
Temporal map of Italian narration (finite, indicative only)
Discussion of narrative discourse

- In the discourse part of the tekst, all Romance languages use the alternation between **PERFECTIVE** and **IMPERFECTIVE** PASTS for narration vs. background.

- ‘Classic’ narration à la Kamp & Rohrer (1983), Partee (1984): **PERFECTIVE** pasts introduce events, events move the reference time forward, and thereby create narrative progress in time. **IMPERFECTIVE**/PROGRESSIVE PASTS introduce states, states overlap with the current reference time, and provide background information.

- The distribution of the **PLUPERFECT** is (roughly) the same in all languages.

- Three reasons to use the **PRESENT** tense in narrative discourse (4 occurrences in original): deictic present (narrator addressing the reader), statement of general truth or free direct discourse. No cross-linguistic variation.
Present tense in narrative discourse

- Deictic present (narrator addressing the reader directly)

When Mr and Mrs Dursley woke up on the dull, grey Tuesday our story starts, there was nothing about the cloudy sky outside to suggest that strange and mysterious things would soon be happening all over the country.

- Statement of general truth

It was one of those rare occasions when the true story is even more strange and exciting than the wild rumours.

- Free direct discourse (character’s inner thought)

What I want more than anything else in the world at the moment, he thought, is to find the Stone before Quirrell does.

- Remainder of this talk: focus on dialogue.
Temporal map of English dialogue (finite, indicative verb forms)
Interactive interface: original example+tense forms in translation

The algorithm creates a two-dimensional map, based on the comparison of all contexts in all the languages.

- Each dot represents a context.
- Interactive interface: use the mouse to point to a dot and you see the original example+tense forms in translation.
Similarities and differences between languages

- For some datapoints, all languages use the same verb form, for others, they use different ones.

50298: And where did you get that motorbike?

passé composé, simple past, ott, Präsens, passato prossimo, pretérito indefinido
Temporal map of English dialogue (finite, indicative verb forms)
Temporal map of Spanish dialogue (finite, indicative verb forms)
Temporal map of French dialogue (finite, indicative verb forms)
Temporal map of Italian dialogue (finite, indicative verb forms)
Temporal map of Dutch dialogue (finite, indicative verb forms)
Temporal map of German dialogue (finite, indicative verb forms)
Conclusions about distribution of forms in context

- **Present** allows **Future** time reference in Dutch (and German, to a lesser degree), but not in other languages (English, Spanish, French, Italian).

- The Romance languages have (roughly) the same distribution of the **Imperfective Past**.

- Simple/perfective **Past** is found in dialogue in English, Dutch, German and Spanish, but French and Italian don’t use the *Passé Simple* and *Passato Remoto* in direct discourse.

- In French and Italian, the *Passé Composé* and the *Passato Prossimo* cover the domain of the **Perfect+Perfective Past** (‘spoken’ language register).
Zooming in on PERFECT use in context

- We find tuples in which (almost) all languages use a PERFECT.
  - Hypothesis: ‘core’ PERFECT meaning.

- We find mixed tuples with PERFECT and PAST forms.
  - Hypothesis: the PERFECT competes with the PAST; this competition gives rise to cross-linguistic variation.

- We find mixed tuples with PERFECT and PRESENT forms.
  - Hypothesis: the PERFECT competes with the PRESENT; this competition gives rise to cross-linguistic variation.

- Interactive interface: from the maps to the underlying data.
Dynamic Interface: back-and-forth between maps and data

Point the mouse to a context to see the example tense labels in translations.

Click on a point to get to the underlying data: sentence from source text and translation in other languages.
‘Core’ PERFECT meaning: states that ended

▪ ‘Core’ PERFECT: all languages agree on auxiliary+past participle configuration.

▪ State that lasted for a while, and is now over:

‘You’ve had nearly fifteen minutes, now OUT’, she said.  
“Jullie hebben bijna een kwartier de tijd gehad, wegwezen!” zei ze gedecideerd.  
“Ihr habt fast fünfzehn Minuten gehabt, nun aber RAUS” sagte sie bestimmt.  
- Ya habéis estado quince minutos, ahora FUERA - dijo con severidad.  
“Ça fait presqu’un quart d’heure, maintenant.”  
‘Sieti rimasti quasi quindici minuti, e ora FUORI!’ disse in tono che non ammetteva replichi. [Italian]
‘Core’ PERFECT meaning: event+result

- All languages use auxiliary + past participle with an event verb that entails a result state with current relevance.

‘See what I have become?’, the face said. [English]

“Zie je wat er van me geworden is?”, zei het gezicht. [Dutch]

“Siehst du was aus mir geworden ist?” sagte das Gesicht. [German]

- ¿Ves en lo que me he convertido? - dijo la cara. [Spanish]

“Tu vois ce que je suis devenu?” dit le visage. [French]

‘Lo vedi che cosi sono diventato?’ disse il volto. [Italian]
‘Core’ PERFECT meaning: negative existential

- Negative existential PERFECT: absence of an event of the type that would have current relevance.

Er - Petunia, dear - you haven 't heard from your sister lately, have you?’ [Engels]
Eh - Petunia, schat - je hebt de laatste tijd toch toevallig niet iets van je zus gehoord?’ [Dutch]
" Ahm - Petunia, Liebes - du hast in letzter Zeit nichts von deiner Schwester gehört, oder?" [German]
Petunia, querida, ¿ has sabido últimamente algo sobre tu hermana? [Spanish]
“Pétunia, ma chérie ”, dit-il, “ tu n'as pas eu de nouvelles de ta sœur récemment?” [French]
Ehm, Petunia, mia cara ... non è che per caso hai sentito tua sorella, ultimamente? ' [Italian]

- Conclusion: there are a range of core PERFECT meanings that are shared by all to the languages in our dataset.
Competition of PERFECT with perfective PAST: written vs. spoken

- French, Italian: PERFECTIVE PAST in written language replaced by PERFECT replaces in dialogue.

  - "Quirrell said Snape –" Simple Past [English]
  - "Krinkel zei dat Sneepe -" ov't [Dutch]
  - "Quirrell sagte, dass Snape -" Präteritum [German]
  - Quirrell *dijo que Snape ..." Pretérito indefinido [Spanish]
  - "Quirrell a dit que Rogue ..." Passé Composé [French]
  - 'Raptor *ha detto che Pitol ...' Passato prossimo [Italian]

- Distribution PERFECTIVE PAST/PERFECT in discourse and dialogue confirms insights from the literature that the *Passato Prossimo* and *Passé Simple* are gone from the spoken language, and restricted to the written language.
Competition of perfect with past in Germanic languages: the role of Aktionsart

- Classification of the Dutch data of the OVT and VTT into three classes: event, state, action.
- Outside of the ‘core’ perfect domain, the German and Dutch translators generally render event verbs in the perfect, and stative verbs in the simple past.

Dumbledore gave me the day off yesterday to fix it. Simple Past [English]
Perkamentus heb me gisteren vrijaf gegeven om 't te regelen. vtt [Dutch]
Dumbledore hat mir gestern dafür freigegeben. Perfekt [German]
Dumbledore me dio libre el día de ayer para hacerlo. Pretérito indefinido [Spanish]
Dumbledore m’a accordé un jour de congé hier pour le préparer. Passé Composé [French]
Ieri Silente mi ha dato una giornata di libertà per fabbricarlo. Passato Prossimo [Italian]
No PERFECT use in narrative contexts (in Dutch and German)

- Obviously, many PERFECTIVE PAST sentences imply event verbs, yet there are fewer PERFECTS in German and Dutch than in French and Italian.

- The Germanic languages avoid PERFECT use in narrative contexts, while French and Italian are fine with *Passé Composé/Passato Prossimo* in narrative sequences.

<table>
<thead>
<tr>
<th>English</th>
<th>Dutch</th>
<th>German</th>
<th>Spanish</th>
<th>Italian</th>
</tr>
</thead>
<tbody>
<tr>
<td>I met him when I travelled around the world.</td>
<td>Simple Past</td>
<td>Präarterum</td>
<td>Pretérito indefinido</td>
<td>Passato remoto</td>
</tr>
<tr>
<td><em>Ik ontmoette</em> hem voor het eerst toen ik een reis rond de wereld maakte.*</td>
<td>ovt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ich <em>traf</em> ihn bei meiner Reise um die Welt.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lo <em>conocí</em> cuando viajaba por el mundo.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Je l’<em>ai rencontré</em> quand je voyageais autour du monde.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lo <em>incontrai</em> all’epoca in cui giravo il mondo.</td>
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</tbody>
</table>
No competition of PERFECT with IMPERFECTIVE PAST: states

- States are generally rendered in the *Simple Past* in the original. In the Romance languages, they are usually translated by means of an IMPERFECTIVE PAST, in the Germanic languages by means of a **PRETERIT**.

‘Oh, Harry we were sure you were going to - Dumbledore was so worried –’

" O Harry, we *dachten* echt dat je - Perkamentus was zo ongerust ... "

" O Harry, wir *dachten* schon , du würdest - Dumbledore war so besorgt - "

- Oh, Harry, *estábamos* seguros de que te ... Dumbledore estaba tan preocupado..

“ Harry, on *pensait* que tu allais ... Dumbledore se faisait tellement de souci ... ”

'Oh, Harry, *eravamo* sicuri che tu ce l’avresti ...’
No competition of PERFECT with IMPERFECTIVE PAST: ongoing event

- In narration as well as dialogue, ongoing events are presented in the IMPERFECTIVE/PROGRESSIVE PAST in English and Romance languages, and are rendered in the simple PAST in Dutch and German.

Harry's scar *was* almost *blinding* him with pain.  
Harry *werd* bijna verblind door de pijn in zijn litteken.  
Harry's Narbe *machte* ihn fast blind vor Schmerz.  
La cicatriz de Harry casi lo *enceguecía* de dolor y.  
La cicatrice devint si douloureuse que Harry en *était* presque aveuglé.  
Il dolore della cicatrice quasi lo *accecava*.

- Conclusion: the PERFECT is in competition with the PERFECTIVE PAST, and this competition leads to cross-linguistic variation.
Competition PERFECT with PRESENT: state that started in the past

- Continuous PERFECT (English) or PRESENT (other languages):

  ‘How long have I been in here?’ [English]
  "Hoe lang lig ik hier al?" [Dutch]
  "Wie lange bin ich schon hier?" [German]
  - ¿Cuánto tiempo hace que estoy aquí? [Spanish]
  “Ça fait combien de temps que je suis là?” [French]
  ' Da quanto tempo sono qui?' [Italian]

- Not all readings ascribed to the English Present Perfect are available in all other languages.
Competition of PERFECT with PRESENT: event+result or just result

- Resultative PERFECT (English, Spanish) or (current) result (Dutch, German, French).

'I've got yeh a present.'
Ik heb wat voor je."
"Da fällt mir ein - ich hab ein Geschenk für dich."
Te he traído un regalo.
" Ah, au fait, ça me fait penser que j’ai un cadeau pour toi."
'Questo mi fa tornare in mente che ho un regalo per te.'

<table>
<thead>
<tr>
<th>English</th>
<th>Present Perfect</th>
<th>Dutch</th>
<th>ott</th>
</tr>
</thead>
<tbody>
<tr>
<td>German</td>
<td>Präsens</td>
<td></td>
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</tr>
<tr>
<td>Spanish</td>
<td>Pretérito Perf. Comp.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>French</td>
<td>Présent</td>
<td></td>
<td></td>
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<tr>
<td>Italian</td>
<td>Presente</td>
<td></td>
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</tr>
</tbody>
</table>

- Conclusion: the PERFECT is in competition with the PRESENT, and this competition leads to cross-linguistic variation, possibly also free variation (translator’s choice, idiomaticity, etc.).
Cross-linguistic variation in the competition of PERFECT with PAST and PRESENT

<table>
<thead>
<tr>
<th>narrative past</th>
<th>past event</th>
<th>‘core’ PERFECT</th>
<th>State that has begun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italian, French</td>
<td>German, Dutch</td>
<td>Spanish</td>
<td>English</td>
</tr>
</tbody>
</table>

PAST ➔ PRESENT
Pragmatics of the **PERFECT**: answer to QUD

- Portner (2003): the **PERFECT** is used to answer the question under discussion.

Context: ‘Yes,’ said Professor McGonagall. ‘And I don’t suppose you’re going to tell me *why* you’re here, of all places?’  

‘I’ve come to bring Harry to his aunt and uncle.’  
‘Ik *kom* Harry afleveren bij zijn oom en tante.’  
"Ich *bin gekommen*, um Harry zu seiner Tante und seinem Onkel zu bringen.

- *He venido* a entregar a Harry a su tía y su tío.  
“*Je suis venu* confier Harry à sa tante et à son oncle.  
‘*Sono venuto* a portare Harry dai suoi zii.”
Pragmatics of PERFECT: topic switch

- Nishiyama & Koenig (2010): *Present Perfect* may be used for topic negotiation.

- Context: Mrs Dursley came into the living-room carrying two cups of tea. It was no good. He’d have to say something to her. He cleared his throat nervously.

‘Er - Petunia, dear - you *haven 't heard* from your sister lately, have you?’  [Engels]

Eh - Petunia, schat - je *hebt* de laatste tijd toch toevallig niet iets van je zus *gehoord*?’  [Dutch]

"Ahm - Petunia, Liebes - du *hast* in letzter Zeit nichts von deiner Schwester *gehört*, oder?"  [German]

Petunia, querida, ¿*has sabido* últimamente algo sobre tu hermana?  [Spanish]

“Pétunia, ma chérie”, dit-il, “tu n'*as pas* eu de nouvelles de ta sœur récemment?”  [French]

Ehm, Petunia, mia cara ... non è che per caso *hai sentito* tua sorella, ultimamente? '  [Italian]
Conclusion about pragmatics

- Hypothesis: discourse function of PERFECT related to speech act, and position in turn.
  - answer the question under discussion in the discourse is for PERFECTS in assertions, preferably in response to a question.
  - negotiating a new topic is for PERFECTS in questions, preferably in turn initial position.

- Annotation for speech acts: interrogatives, declaratives, exclamatives, imperatives.

- Empirical findings: same number of PERFECTS in interrogatives and declaratives; no cross-linguistic variation in imperatives, not enough data to draw conclusions about exclamatives.
General conclusions

- The PERFECT is a tense-aspect category that we find in dialogue, rather than in narration: more semantic-pragmatic research needed on tense use in dialogue.

- Data-driven methodology suitable for detecting stability as well as cross-linguistic variation

- *Translation Mining* reveals a core meaning for the PERFECT (cross-linguistic stability).

- We also find cross-linguistic variation: competition of the PERFECT with both the (PERFECTIVE) PAST and the PRESENT.


[Work in Progress] Check Back Soon!