

The Present Perfect Puzzle

The *present perfect puzzle* states that “the **Present Perfect** does not go with an adverbial referring to the past” (Klein 1992: 526), so the **Simple Past** has to be used instead:

(1) Chris **has left / left* York **today at six**. (cfr. Klein 1992: 546, (ex.45))

From a Reichenbachian perspective (Reichenbach 1947), both the **Simple Past** and the **Present Perfect** situate the time of the event (E) before the speech time (S). The difference between these tenses resides in the position of reference time (R):

(Simple) Past: E,R <S (Present) Perfect: E < R,S

Since locating time adverbials target **reference time (R)**, the **Present Perfect** becomes **incompatible with past-referring temporal adverbials**.

Crosslinguistic Variation: French, German and Dutch

Other languages, however, such as French (Vet 1992) or German (Musan 2002), do allow their corresponding **PERFECT** markers to combine with past referring adverbials (Squartini & Bertinetto 2000), showing that this constraint does not hold crosslinguistically.

(2) Chris *est partie* à six heures. [French; **Passé Composé**]
(3) Chris *ist* um sechs Uhr *abgefahren*. [German; **Perfekt**]

The Dutch **PERFECT** *Voltooid Tegenwoordige Tijd (VTT)* is also not affected by this constraint, as (4a) shows. Rather, as (4b) exemplifies, the **PERFECT** is preferred over the **PAST** form in such contexts (van der Klis et al. 2021).

(4a) Chris *heeft* York **vandaag om zes uur verlaten**. ‘Chris has York today at six left’
(4b) *Chris *verliet* York **vandaag om zes uur**. ‘Chris left York today at six’

Dutch, however, unlike German and French, does not allow the **PERFECT** to appear in narrative contexts, as indicated by the *when*-clause criterion (Boogaart 1999) in (5-8):

(5) *When John *has seen* me, he *has got frightened*. [English]
(6) *Toen Jan me *heeft gezien*, *is* hij bang *geworden*. [Dutch]
(7) Quand Jean m’*a vu*, il *a eu* peur. [French]
(8) Als Johan mich *gesehen hat*, *hat* er Angst *bekommen*. [German]

Spanish and the hodiernality constraint

Some dialects of Peninsular Spanish appear to reflect an **intermediate point** in its availability to combine the **PERFECT** *Preterito Perfecto Compuesto* with past-referring temporal adverbials (Schwenter 1994):

(9) Chris se *ha ido* / *#fue* de York **hoy a las seis**. ‘Chris has left / left York at six’.
(10) Chris se *#ha ido* / *fue* de York **ayer**. ‘Chris has left / left York yesterday’.

As (9) indicates, Spanish allows its **PERFECT** to combine with temporal adverbials (*hoy a las seis* ‘today at six’) that create the relation **E=R ⊆ day(S)**. Conversely, when the event E is anchored to a past reference time R before the day of utterance S, as in (10), with the adverb *ayer* ‘yesterday’, only the (Perfective) **PAST** –the *Preterito Indefinido*– is allowed. That is why the Spanish **PERFECT** has been defined as a **hodiernal past marker**.

English and the deixis constraint

Other work in English has provided indications that **deictic adverbials** (i.e., adverbials whose reference is calculated with respect to the speaker’s time/space center of reference) behave differently with respect to their (in)compatibility with the **PERFECT** (e.g., Hitzeman 1995). Different from (1), the **Present Perfect** seems to be able to combine with **deictic past-time referring adverbials that include the speech time S**, like *this afternoon*, since they target **R=S** (de Swart 2007) and do not create an incompatibility with this marker, as (11) shows:

(11) Chris *has left / left* York **this afternoon**

Methods: an acceptability judgment task

• **Goal:** produce a more **fine-grained typology** of the elements that are part and parcel of a crosslinguistically valid semantics of the **PERFECT** that is able to account for its **adverbial compatibility** across languages.

• **Task:** (online) **acceptability judgments**. Previous work has mostly relied on introspection (e.g., Klein 1992) or production data such as corpora (e.g., van der Klis et al. 2021) or force-choice tasks (e.g., Schwenter 1994), where results are binary (present vs. absent). **Large-scale judgment data** can provide a **more nuanced perspective** than corpus data (Adli 2005, Hoffman 2006, Francis 2022) also indicating **preferences between forms**.

• **3 Languages:** UK English, Peninsular Spanish, Netherlands Dutch.

• **Materials:** 64 stimuli + 96 fillers (designed to elicit higher ratings for **PERFECT** than for **PAST** in all languages) in a Latin Square design. All sentences (in context) displayed an **achievement** (since they have no temporal extension, and can be placed directly on a timeline, unlike accomplishments or activities). Our **independent variables** were:

- **Grammatical marker:** corresponding **PERFECT** and **PAST** in each language.
- **Temporal proximity:** **+T adverbials** relate to the day of utterance (S) by being included in it (e.g., *this morning*), overlapping with it (e.g., *today*) or including it (e.g., *this month*). Conversely, **-T adverbials**, such as *last month*, do not include, overlap or are included in day (S).
- **Deixis:** in **+D adverbials** the temporal reference of the adverbial is deictic in nature (e.g., to place *yesterday* on the timeline, we need information about the speaker’s current temporal location). With **-D adverbials**, the event can be placed on the timeline independently from the speaker’s center of reference, such as in the case of *in November*.

• **Procedure:** rate individually presented sentences in a 5-point Likert scale. Answer yes-no comprehension questions, which followed 75% of the items.

• **Participants:** 160 subjects per language. All regions of UK, Spain, and The Netherlands, but mostly Greater London, Madrid, and Utrecht respectively.

Sample Stimulus

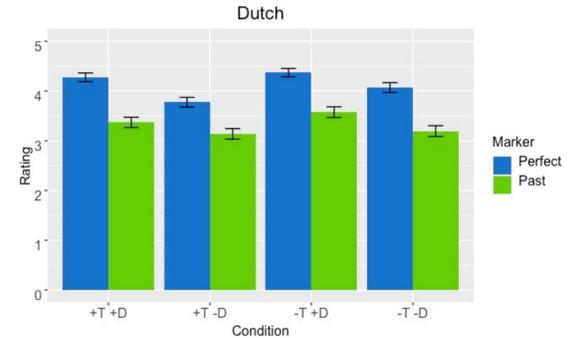
Peter and Theresa are planning to go to a concert next weekend. Peter offers to go get the tickets later today, but Theresa tells him:

Condition	Marker	Adverbial	Continuation
PERFECT	+T, +D		<i>this morning</i>
PERFECT	+T, -D	<i>I have purchased mine</i>	<i>at midnight</i>
PERFECT	-T, +D		<i>last month</i>
PERFECT	-T, -D		<i>in November</i> <i>It was cheaper that way.</i>
PAST	+T, +D		<i>this morning</i>
PAST	+T, -D	<i>I purchased mine</i>	<i>at midnight</i>
PAST	-T, +D		<i>last month</i>
PAST	-T, -D		<i>in November</i>

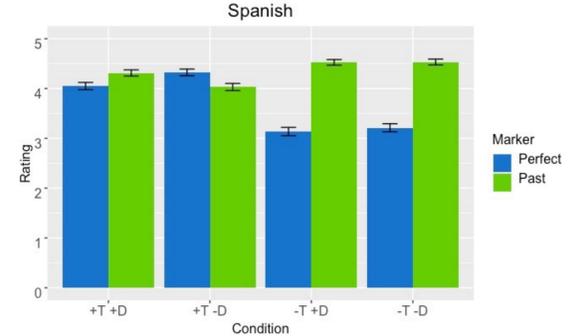
Results

Linear mixed-effect analysis (random intercepts: subject and item)

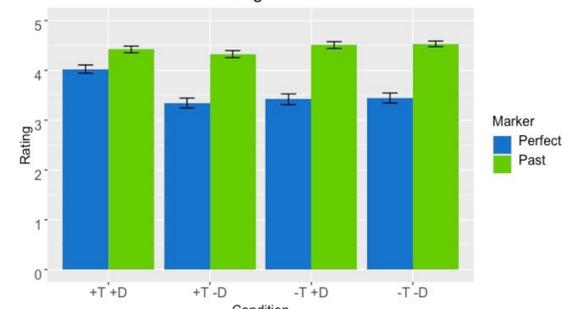
• **Dutch:** main effect of marker ($\chi^2(2) = 32.117; p < .001$), favoring the **PERFECT** over the **PAST** across all conditions ($\beta = 0.8031; p < .001$).



• **Spanish:** significant interaction of T*Marker ($\chi^2(1) = 47.12; p < .001$), no effect of deixis. In **-T** main effect of marker ($\chi^2(1) = 57.07; p < .001$), favoring **PAST** over **PERFECT** ($\beta = 1.353; p < .001$), but in **+T**, no significant effect of marker ($\chi^2(1) = 0.016; p = .90$).

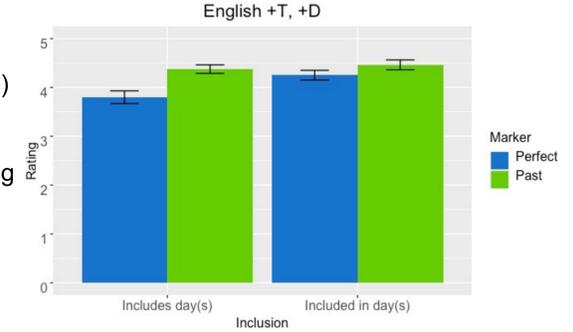


• **English:** significant effect of T*D*Marker ($\chi^2(2) = 6.373; p < .05$), favoring the **PAST** over the **PERFECT** in all conditions. **Less categorical difference in +T,+D**, but post-hoc test still shows the effect ($\beta = 0.394; p = .035$).



- **No effect of regional variation** was found in any of the languages.
- All participants **>75% accuracy** in comprehension questions.
- **Fillers worked as expected** (high ratings for **PERFECT** / low ratings for **PAST**)

• **Nuanced results (English):** subdividing **+T,+D** adverbials by whether the adverb includes day (S) or is included in day(S), we find a significant marker effect in the first case ($\chi^2(1) = 6.7711; p < .01$) favoring the **PAST** ($\beta = 0.5931; p < .001$), but the effect disappears in adverbs included in the day (S) ($\chi^2(1) = 0.5942; p = .4408$; **PERFECT** = 4.25; **PAST** = 4.38)



Summary / Discussion

- **Dutch** speakers prefer the **PERFECT** over the **PAST** across the board.
- **Spanish** speakers accept the **PERFECT** when the adverb is linked to the present, but there is **no preference** for the *Preterito Perfecto Compuesto* in +T condition: the *Preterito Indefinido* receives similar ratings.
- **English** speakers prefer the **Simple Past** in all conditions but they accept the **Present Perfect** with deictic hodiernal adverbials, especially when the adverb ⊆ day (S).
- Day(S) becomes an **extension of speech time**: only adverbials that relate to day(S) allow to combine with the Spanish **PERFECT**. This **hodiernal past** also extends beyond the day of utterance per se, as it can also include it (e.g. *this week*).
- **Deixis is relevant** as only deictic adverbials are allowed to combine with the English **PERFECT**. We also find a difference between adverbials included in day(S) (*this morning*) and those including day(S) (*this spring*).
- **No regional variation** on the acceptance of the **PERFECT** in Peninsular Spanish, contra previous reports (NB: there still might be **differences in terms of production**).

General Conclusion

Hodiernality and deixis (and considerations about ‘proper’ hodiernality vs. ‘extended’ hodiernality) play a role in PERFECT-PAST crosslinguistic variation and will have to be included in a crosslinguistic semantic analysis of the PERFECT

References

Adli, A. 2005. Gradedness and consistency in grammaticality judgments. In S. Kessler & M. Reis (eds.), *Linguistic Evidence: Empirical, Theoretical and Computational Perspectives*. New York: De Gruyter. // Boogaart, R. J. U. 1999. *Aspect and temporal ordering. A contrastive analysis of Dutch and English*. Vrije Universiteit Amsterdam dissertation. // Francis, E. J. 2022. *Gradient Acceptability and Linguistic Theory*. Oxford: OUP. // Hitzeman, J. 1995. A Reichenbachian Account of the Interaction of the Present Perfect with Temporal Adverbials. *NELS* 25, 17. // Hoffman, T. 2006. Corpora and Introspection as Corroborating Evidence: The case of preposition placement in English relative clauses. *Corpus Linguistics and Linguistic Theory* 2(2), 165-195 // Klein, W. 1992. The Present Perfect Puzzle. *Language* 68, 525-552. // van der Klis, M., Le Bruyn, B. & de Swart, H. 2021. A multilingual corpus study of the competition between past and perfect in narrative discourse. *Journal of Linguistics*, 1-35 // Musan, R. 2002. *The German perfect: its semantic composition and its interaction with temporal adverbials*. Dordrecht: Kluwer. // Portner, P. 2003. The (Temporal) Semantics and (Modal) Pragmatics of the Perfect. *Linguistics and Philosophy* 26, 459-510. // Reichenbach, H. 1947. *Elements of Symbolic Logic*. London: McMillan. // Schwenter, S. 1994. The Grammaticalization of an Anterior. *Studies in Language* 18, 71-111. // Squartini, M. & Bertinetto, P. 2000. The Simple and Compound Past in Romance languages. In Ö. Dahl, *Tense and Aspect in the Languages of Europe*. 403-440. // Vet, C. 1992. Le passé composé: contextes d’emploi et interprétation. *Cahiers de Praxématique* 19, 37-59.