

**The Crosslinguistic Variation of the Present Perfect as a Definiteness Effect**  
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In this paper, I will focus on the present perfect in English and two Romance languages (Italian, French), and argue that the crosslinguistic variation regarding its use is explained by the competition with the simple past in a way similar to the competition between definite (discourse old) and indefinite DPs (discourse new) proposed by Heim (1983, 1991). I will show that Maximize Presupposition (Heim 1991, Sauerland 2008, Sign 2011, etc.) not only derives the readings and constraints of the present perfect, but also gives rise to the same crosslinguistic variation in (in)definite DPs as well as in the present perfect.

Specifically, I argue that in English, the present perfect is indefinite and the simple past is definite in this sense, leading to phenomena such as the Present Perfect Puzzle (Klein 1992) and the discourse new property of the present perfect. In French and Italian, on the other hand, the present perfect is semantically the same as in English but due to the absence of a competing definite simple past, it can be used for temporal anaphora and does not give rise to the Present Perfect Puzzle. This parallels the fact that in some languages, ‘indefinite’ DPs behave as if they are ambiguous, due to the absence of a competing definite (Heim 2011).

This analysis allows us to maintain the same semantics of the present perfect across languages while explaining the variation of the Present Perfect Puzzle. It also provides a basis of further investigation in the crosslinguistic variation of the definiteness properties of tenses.

**Temporal and Nominal Definiteness:** As illustrated in (1)-(2), in English, the simple past and the present perfect contrast with respect to an antecedent time. In (1), it is when John visited Rome, and in (2), it is the time of John’s trip. The simple past (1a, 2a) refers to this time, while the present perfect (1b, 2b) cannot and must refer to a new time. This parallels with the definite and indefinite DPs in (4)-(5). In (4), the antecedent is the chair John sat on, and in (5) it is the spider. The definites (4a, 5a) refer to the antecedent, unlike the indefinites (4b, 5b). When there is no antecedent in the context as in (3) and (6), the simple past and the definite are infelicitous.

Simple Past vs. Present Perfect		Definite vs. Indefinite Noun Phrases	
(1)	John has visited <sub>i</sub> Rome with some friends. Mary a. went <sub>i</sub> too. b. has <sub>j/#i</sub> (visited Rome) too.	(4)	There were four chairs. John sat down on a chair <sub>i</sub> . Then Mary a. knocked the chair <sub>i</sub> over. b. knocked a chair <sub>j/#i</sub> over.
(2)	<i>Mary knows that John had a trip to Italy last month<sub>i</sub>, and she’s asking if he visited Rome during the trip.</i> a. Did <sub>i</sub> you visit Rome? b. Have you visited <sub>j/#i</sub> Rome?	(5)	<i>There is a giant spider<sub>i</sub> in the house. Everyone is scared.</i> a. Be careful, the giant spider <sub>i</sub> may be in this room. b. A giant spider <sub>j/#i</sub> may be in this room.
(3)	<i>Mary asks about John’s experience (out of the blue).</i> #Did you visit/Have you visited Rome?	(6)	<i>John saw a giant spider, but Mary doesn’t know anything about it.</i> John: I just saw #the/a giant spider in the kitchen!

The time/entity introduced by the present perfect and indefinite DPs as new discourse referents can be picked up in the subsequent sentence by the simple past (7a) or a definite DP (7b).

- (7) a. John **has lived<sub>i</sub>** in London. He **lived<sub>i</sub>**      b. I put **some food<sub>i</sub>** in the garden and **a cat<sub>j</sub>** appeared. **The cat<sub>j</sub>** loved **the food<sub>i</sub>** there last summer.

French and Italian present perfects display both the definite and indefinite readings in all the situations above. They can replace both the English present perfect and the simple past. This is parallel to Slavic DPs, which can get both the definite and indefinite readings.

**The Present Perfect Puzzle** also distinguishes English (8) from French (9a) and Italian (9b). It is the fact that in English, the present perfect cannot co-occur with past adverbials.

(8) John arrived/#has arrived yesterday.

(9) a. Gianni è arrivato ieri.

b. Jean est arrivé hier.

**Crosslinguistic Variation Explained:** To capture the fact that the definite must be used to refer to an antecedent, Heim (1991) among others introduced the principle of Maximize Presupposition (MP). MP dictates that if two alternatives are contextually equivalent (i.e. having the same truth value in all worlds in the context), the speaker must use the one with stronger presuppositions if it is felicitous in the context.

I argue that past temporal adverbials provide an interval that the tense in the sentence refers to ( $t$  in (14)). In Present Perfect Puzzle sentences like (8), the simple past refers to the interval  $t$  *yesterday* introduces, and the present perfect cannot refer to  $t$  by MP. Similarly, MP rules out the indefinite *a cat* in (10) under the anaphoric reading.

(10) I have a  $cat_i$  and {the  $cat/it/ \#a\ cat$  } $_i$  is grey.

On the other hand, the discourse new property of the indefinite DPs and the present perfect is analysed as an *antipresupposition* (Percus 2006, etc.), which is an inference that the antecedent presupposition of the definite is not met. This explains the examples (1)-(3).

In French and Italian, the simple past is either not in the same register (only in formal writing as in standard Italian), or completely absent as in colloquial French. As a result, the present perfect is not ruled out by MP when referring to the antecedent provided by the adverbial, thus there is no Present Perfect Puzzle. The present perfect can get either the definite or the indefinite readings in all of the examples above due to the lack of antipresupposition inferences. This is parallel to Heim's (2011) analysis of the ambiguity of Slavic DPs.

**Further Patterns:** Catalan present perfect and the (periphrastic) past are divide by the 24-hr boundary and do not compete in definiteness. The same is with (European) Spanish, but other Spanish varieties are yet to be examined. (Standard) German behaves like French.

**DRT-Style Formalization (cf. Grønn 2003):** The extensions of sentences are discourse structures updating the context ([variables|conditions]). Presuppositions are written in {}, and presupposed variables are underlined>. I assume the syntax, the semantics of vP and viewpoint aspects as in (11)-(13). Past adverbials introduce the interval  $t$  they denote into the context (14).

(11) [<sub>TP</sub> Tense [<sub>PerfP</sub> Perfect [<sub>AspP</sub> Viewpoint-Aspect [<sub>vP</sub> Aktionsart]]]].

(12)  $\llbracket vP \rrbracket = \lambda e [ (\text{necessary variables}) | P(e), (\text{theta-roles}) ]$

(13) a.  $\llbracket \text{perfective} \rrbracket = \lambda P. \lambda t. [e | P(e), \tau(e) \subset t]$  b.  $\llbracket \text{imperfective} \rrbracket = \lambda P. \lambda t. [e | P(e), t \subseteq \tau(e)]$

(14)  $\llbracket \text{yesterday} \rrbracket = \lambda p. \lambda t''. [t | t \approx \text{yesterday}_c, p(t)]$

I propose that past presupposes that the time  $t'$  it introduces is anaphorically linked to an antecedent past time by a relation  $\rho$  (15a). The perfect (16) requires that the time  $t'$  it introduces is no later than the time it takes as an argument (which is supplied by tense).

(15) a.  $\llbracket \text{past} \rrbracket = \lambda p. [t' | p(t')] \{ \underline{t} | t \leq n, \rho(\underline{t}, t') \}$  b.  $\llbracket \text{present} \rrbracket = \lambda p. [n | p(n)]$

(16)  $\llbracket \text{perfect} \rrbracket = \lambda p. \lambda t [t' | p(t')] \{ | t' \leq t \}$ , where  $t' \leq t$  iff there is no  $t'' \subset t'$  such that  $t'' > t$

I follow Pancheva and von Stechow (2004) and assume that when the clause is finite, a complex operator [present perfect] is formed at T. To maintain compositionality, [present perfect] must have the formula as in (19).

(17)  $\llbracket \text{present perfect} \rrbracket = \lambda p. [(n) t' | p(t')] \{ | t' \leq n \}$

The present perfect and the simple past differ only in the antecedent presupposition (if  $n$  is taken to be always available), hence they are presuppositional alternatives to each other. The perfect allows  $t'$  to overlap with the speech time, but it does not make any difference when the viewpoint aspect is perfective. When it is imperfective, it can generate the Universal Reading of the present perfect (Iatridou et al. 2001). Further details are omitted here due to limited space.