

NOTE 2 THE PERFECT

- (1) a. Mary will *have arrived* in New York by noon.
- b. Ivan šte e pristignal v Sofia do dovečera. (Bulgarian)
Ivan will *be*-_{3SG.PRES} arrived-_{PERFECT.PART} in Sofia by tonight
'Ivan will have arrived in Sofia by tonight.'
- c. Cuma gibi Istanbula var-mis-ti-m (Turkish)
Friday by Istanbul-_{DAT} arrive-_{PERFECT-PAST-1SG}
'I had arrived in Istanbul by Friday.'

1. ISSUES IN THE ANALYSIS OF THE PERFECT

1.1 THE PERFECT VS. THE SIMPLE TENSES

- Present perfect vs. past
- (2) a. Maya has done her homework.
b. Maya did her homework.
- Future perfect vs. future
- (3) a. Maya hasn't yet done her homework but she will have done it by tomorrow.
b. Maya hasn't yet done her homework but she will do it by tomorrow.

1.2 SYNTACTIC ENCODING OF THE PERFECT MEANING

- In analytical perfects, how is the perfect meaning distributed on the syntactic tree? In particular, what is the role of auxiliaries?

1.3 DIFFERENT TYPES OF PERFECT

- Four types of perfects (McCawley 1971, a.o.)
- (4) a. Since 2000, Alexandra has lived in LA.
b. Lola has seen "The Princess and the Warrior".
c. Rebecca has lost her glasses.
d. The Red Sox have won!
- Can a uniform meaning for the perfect be posited?

1.4 PARTICIPANT PROPERTY

- Jespersen (1931:50)
- (5) a. # Einstein has visited Princeton.
b. Einstein visited Princeton.

1.5 INTERACTION WITH TEMPORAL ADVERBIALS

- *Since 1990, lately, for 10 days, on a Monday, now ...*
- (6) a. ?? The dictator has assassinated his opponent since 1990 (Iatridou 2004)
b. Maya has lived in LA since 1990
- The *present perfect puzzle* (Klein 1992)
- (7) a. * John has left *at 10*.
b. John may have left *at 10*.
- (8) a. Hans ist *gestern um zehn* weggegangen. (German, Musan 2001:35)
Hans is *yesterday at 10* left
Lit. 'Hans has left yesterday at 10.'
- b. Gianni è partito *alle quattro*. (Italian, Giorgi and Pianesi 1998)
Gianni is left *at 4*
Lit. 'Gianni has left at 4.'
- Another perfect puzzle (Pancheva 2004)
- (9) a. ?? We saw John last night. He had arrived *yesterday...*
b. We saw John this morning. He had arrived *yesterday...*

2. THEORIES OF THE MEANING OF THE PERFECT

- Three main general theories:
 - *Extended Now (XN)* theory (McCoard 1978, Dowty 1979, McCawley (1993), Vlach 1993, Iatridou, Anagnostopoulou and Izvorski 2001 (IAI))
 - *Anteriority* theory (e.g., Reichenbach 1947, Inoue 1989, Hornstein 1990, Klein 1992, 1994);
 - *Result State* theory (e.g., Moens and Steedman 1988, Parsons 1990, Kamp and Ryle 1993, Giorgi and Pianesi 1998, a.o.)
- Individual accounts vary, and may even have aspects of more than one of the general theories (e.g. Smith 1997, von Stechow 1999)

- The theory defended here is a weak version of the XN theory

2.1 ANTERIORITY THEORY

2.1.1 MAIN CLAIM

- The main claim of the Anteriority theory is that the perfect locates the *event time* (E), the time during which the event obtains) prior to the *reference time* (R), the interval manipulated by tense).

(10) Perfect: $E < R$

- (11) a. Past: $R < S$
b. Present: $R = S$
c. Future: $R > S$

- Composing perfect and tense

- (12) a. Past Perfect: $E < R < S$
b. Present: $E < R = S$
c. Future: $E < R \ \& \ R > S$

2.1.2 PROBLEMATIC ASPECTS

2.1.2.1 *The Universal perfect*

- Perfects as in (13), does not conform to the general meaning in (10).

- (13) a. Alicia has lived in LA all her life.
b. Alicia has been dancing since this morning.

- In (13), R is included in E by assertion (cf. IAI's ex. (6))

- (14) a. *She has been sick at least/ever since 1990 but she is fine now.
b. *She has always lived here but she doesn't anymore.

2.1.2.2 *Interaction with viewpoint aspect*

- The perfect is treated as being of the same category as viewpoint aspect – expressing a relation between E and R.
- But the perfect can compose with viewpoint aspect (cf. (13b))

2.1.2.3 *Treatment of the present perfect puzzle*

- Anteriority theory, as it is, has nothing to say about the present perfect puzzle. Further clauses that have no natural relation to the theory have to be added to handle the puzzle.
- Specific problems with each account will be discussed next time...

Reichenbach (1947)

- It is stipulated that the relevant adverbials cannot modify the event time (cf. (15)), but only the reference time (which is precluded in the case of the present perfect, as the reference time coincides with the speech time, cf. (16)).

(15) E < R = S
 * |
 yesterday / at 10

(16) E < R = S
 * |
 yesterday / at 10

- Empirical problems with non-present perfects; the cross-linguistic variation is not explained

Inoue (1989)

- The perfect is an “indefinite past”, hence the prohibition against *yesterday/at 10* in the present perfect.
- No insight into the modification patterns in non-present perfects and the cross-linguistic variation

Klein (1992, 1994)

- Klein’s account of the present perfect puzzle also relies on an addition to the theory that has no independent motivation. Specifically, a pragmatic constraint is said to rule out the adverbials because they are definite (see (17)).

- (17) a. An expression, whose lexical content explicitly specifies the position of a time span in relation to the speech time is ‘p(osition)-definite’: It fixes a definite position on the time axis.
- b. P(osition)-definiteness constraint
 In an utterance, the expression of the reference time and the expression of the event time cannot both be independently p-definite.

- (18) a. * At seven, John had left at six.
b. Yesterday, Mary came to John's office at seven. But John had left at six.

- The present tense in English is said to be p-definite (the position of the temporal interval is fixed to include the speech time). The past and future tense are said to not be p-definite. The present tense in German is also said to not be p-definite (it need not include the speech time).

- (19) *John PRESENT have left at 6.
 | |
 p-definite p-definite

- Why does the p-definiteness constraint hold, even if it is descriptively correct (and it isn't)?

2.2 RESULT STATE THEORY

2.2.1 MAIN CLAIM

- According to the Result State theory, the perfect contributes the meaning that the *result state* of the underlying event obtains at reference time.

- (20) Alicia has drunk the wine.
 ≈ The result state of Alicia drinking the wine obtains at the speech time.

2.2.2 PROBLEMS

2.2.2.1 *Perfect of progressives and non-telic events*

- The Universal perfect (as in (13)) is again a problem, as is the perfect of non-telic events (cf. (21)). No unique, non-trivial result states may be identified.

- (21) Alicia has been in LA.

2.2.2.2 *The perfect vs. the past*

- It is not clear how the simple past is any different wrt results.

- (22) a. Alicia was in LA.
 b. Alicia was dancing this morning.
 c. Alicia drank the wine.

2.2.2.3 *Treatment of the present perfect puzzle*

- Again, as with the Anteriority theory, the Result State theory as such, has nothing to say about the present perfect puzzle. Further clauses with no natural link to the theory have to be added to handle the puzzle.

Giorgi and Pianesi (1998)

- In Giorgi and Pianesi (1998) a syntactic constraint on the distribution of definite arguments is said to rule out positional adverbials.

- (23) a. Adverbials fix the left boundary of the result state – the event time. Tense fixes the right boundary.
- b. A result state cannot be definite. A result state is definite, whenever both its boundaries are definite.

(24) E_result state_R

- Present tense in English is said to fix the right boundary precisely, to the speech time. The past and future tenses do not. Present tense in German/Italian is said to not fix the right boundary to the speech time.

- (25) * E_____R (= S)
 |
 yesterday / at 10

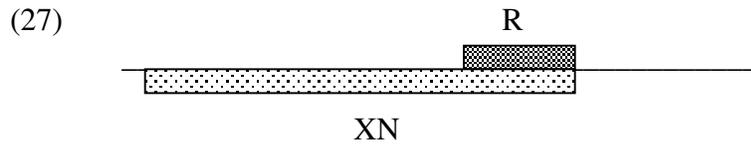
- With that much, the proposal is similar to Klein's and some of the same objections obtain.
- Giorgi and Pianesi attempt to further qualify/motivate (23b) by appealing to the Mapping Hypothesis of Diesing (1992), and proposals by Kayne (1993) about syntactic features of Agr and the highest head in participial projections.
- Clearly, this proposal depends on many assumptions that need independent justification. Importantly, all are unrelated to the essential semantics of the perfect.

2.3 THE XN THEORY

2.3.1 MAIN CLAIM

- According to the XN theory, the perfect introduces an interval that extends back from the reference time, and affirms that the untensed proposition that it takes in its scope is true at that interval.

(26) $[[\text{PERFECT}]] = \lambda p_{\langle i, t \rangle} . \lambda t_i . \exists t'_i [XN(t', t) \ \& \ p(t')]$ (after Dowty 1979)
 where $XN(t', t)$ iff t is a final subinterval of t'



- Following IAI, let's call the interval introduced by the perfect the *Perfect Time Span* (PTS). The Left Boundary of PTS is set up by adverbials such as *since 1990*; the Right Boundary is set up by tense

(28) a. I have lived in LA since 1990.
 b. I have visited LA since 1990.

(29) $\left[\frac{\quad}{1990 \quad R} \right]$

2.3.2 ADVANTAGES

2.3.2.1 Interaction with viewpoint aspect

- The perfect relates two intervals and is silent about the event time. This means that there is a need for viewpoint aspect to be embedded in the perfect.
- The XN theory can be naturally augmented to take into account aspectual distinctions in the perfect (cf. IAI, Pancheva 2003). E is situated relative to the PTS, depending on the viewpoint aspect embedded in the perfect.

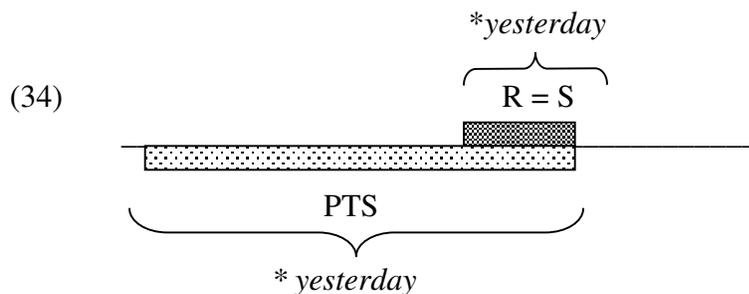
(30) a. $[[\text{PERFECTIVE}]] = \lambda P_{\langle v, t \rangle} . \lambda t_i . \exists e_v [\tau(e) \subseteq t \ \& \ P(e)]$
 b. $[[\text{IMPERFECTIVE}]] = \lambda P_{\langle v, t \rangle} . \lambda t_i . \exists e_v [t \subset \tau(e) \ \& \ P(e)]$
 c. $[[vP]] = \lambda e_v . P(e)$

(31) a. Alicia has danced.
 b. $[\text{PERFECT} [\text{PERFECTIVE} [\text{Alicia dance}]]] =$
 $= \lambda t_i . \exists t'_i [XN(t', t) \ \& \ \exists e_v [\tau(e) \subseteq t' \ \& \ \text{Alicia-dance}(e)]]$

(32) a. Alicia has been dancing (since this morning)
 b. $[\text{PERFECT} [\text{IMPERFECTIVE} [\text{Alicia dance}]]] =$
 $= \lambda t_i . \exists t'_i [XN(t', t) \ \& \ \exists e_v [t' \subset \tau(e) \ \& \ \text{Alicia-dance}(e)]]$

2.3.2.2 *The treatment of the present perfect puzzle*

- The XN theory by its essence suggests why the present perfect puzzle should obtain. No independent assumptions are necessary.
 - The XN account of the present perfect puzzle:
- (33) a. Reference time modification is restricted to present adverbials (as R is present)
 b. PTS modification is restricted to the present adverbials too (as PTS includes R, and therefore S).
 c. Event time modification is not possible (for type reasons, assuming (30))



- We will see that the XN theory also has problems, and cannot account for the present perfect puzzle as is. However, the insights of (33) are retained in the eventual solution to be presented next time.

3. FOUR PERFECTS IN ONE

3.1 THE TYPES OF PERFECT ILLUSTRATED

- Interpretation-wise, several types of perfects have been recognized (e.g., McCawley 1971, Comrie 1976, Binnick 1991, a.o.).¹

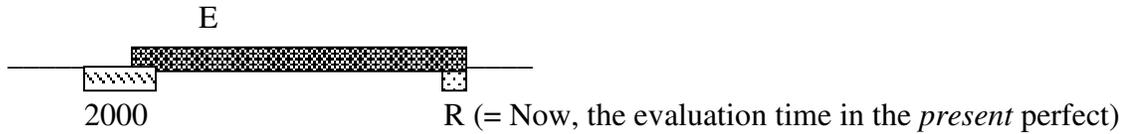
- (35)
- | | |
|--|--------------|
| a. Since 2000, Alexandra has lived in LA. | UNIVERSAL |
| b. Lola has seen “The Princess and the Warrior”. | EXPERIENTIAL |
| c. Rebecca has lost her glasses. | RESULTATIVE |
| d. The Red Sox have won! | RECENT PAST |

- The different types of perfect make different claims about the temporal location of the underlying event with respect to the reference time.

¹ A terminological note: McCawley 1971 uses the names UNIVERSAL, EXISTENTIAL, STATIVE, and HOT NEWS PERFECT, respectively; Comrie 1976 calls these PERFECT OF PERSISTENT SITUATION, EXPERIENTIAL PERFECT, PERFECT OF RESULT, and PERFECT OF RECENT PAST.

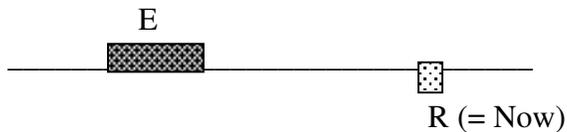
- (36) a. The UNIVERSAL perfect asserts that the event holds *throughout* an interval, delimited by the reference time and a certain time prior to it.

$\exists e [(end\ of\ 2000, Now) \subseteq \tau(e) \ \& \ Alexandra\text{-live-in-LA} (e)]$



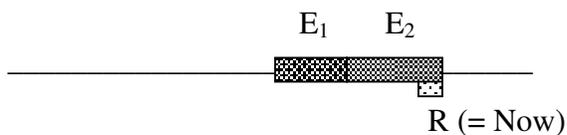
- b. The EXPERIENTIAL perfect asserts that the event holds *prior to* the reference time.

$\exists e [\tau(e) < Now \ \& \ Lola\text{-see-} 'P\&W' (e)]$



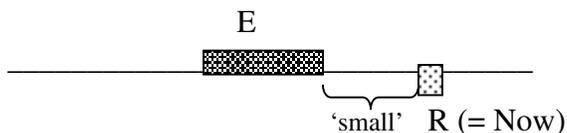
- c. The RESULTATIVE perfect asserts that the result state of the event holds *at* the reference time.

$\exists e_1 \exists e_2 [Now \subseteq \tau(e_2) \ \& \ Result(e_2, e_1) \ \& \ Rebecca\text{-lose-her-glasses} (e_1)]$



- d. The RECENT PAST perfect asserts that the event holds *prior to, and sufficiently close to, the reference time.*

$\exists e [\tau(e) < Now \ \& \ \tau(e) \text{ is sufficiently close to } Now \ \& \ The\text{-Red-Sox-win} (e)]$



- The different perfect readings are not a peculiarity of the present perfect; they obtain with the past, future, and non-finite perfects as well, at least in English.

3.2 QUESTIONS

- **Two related questions arise:**

- (37) a. Is there a common representation for the perfect – a uniform structure with a single meaning – unifying the four readings?
b. If indeed so, is the distinction between the types of perfect grammatically based?

- **The answers given here:**

- (38) a. Yes, all perfect expressions share a single component of meaning – PERFECT – localizable to a functional head, which selects for a viewpoint AspP.
b. Yes, different viewpoint aspect specifications of Asp – yield some of the different interpretations of the perfect.
c. There is a role for adverbials as well.

3.3 PREVIOUS ANALYSES

- The questions in (37) have been discussed extensively, mostly with respect to the Universal perfect vs. (some of) the remaining types. This is known as the Universal-Existential debate (Existential is sometimes meant to include Experiential alone, sometimes Experiential and Resultative, sometimes Experiential, Resultative and Recent Past)
- There appears to be no account that posits a uniform overall structure and meaning for the perfect and yet allows for distinct additional grammatical components to be embedded within that structure to derive the four readings.
- In previous accounts:
 - i) A single representation for the perfect with no further formal specification for the different interpretations. Contextual information determines the ultimate interpretation (e.g., McCoard 1978, Heny 1982, Inoue 1989, Hornstein 1990, Parsons 1990, Klein 1994, Musan 2001)
 - ii) The Resultative, Experiential and Universal perfects incorporate three different aspectual operators; there is no uniform overall representation for the perfect (von Stechow 1999, 2002)
 - iii) Structural identity between two among the Experiential, Resultative and Universal perfects, with the third being structurally distinct; there is no uniform overall representation for the perfect (Brugger 1998, Kiparsky 2002).

- iv) The Universal-Existential ambiguity is grammatically encoded (Dowty 1979, Richards 1982, Mittwoch 1988, Abusch and Rooth 1990, Vlach 1993, Hitzeman 1998, IAI, Iatridou 2004). No explicit proposals are made about the distinctions within the Existential perfect.
- v) The Universal-Existential distinction is semantic, determined by the Aktionsart of the underlying event, but the distinctions within the Existential perfect are determined on the basis of a pragmatic notion of current relevance (Portner 2003).

3.4 ARGUMENTS FOR A GRAMMATICAL DISTINCTION

3.4.1 THE ROLE OF ASPECT

- The Universal perfect is cross-linguistically restricted and has been traditionally thought of as a peculiarity of English (e.g., Comrie 1976). This in itself is an argument for a grammatical basis of the Universal-Existential distinction, for if the distinction were pragmatic it would be universally available.

(39) * *Exo panta zisi stin Athina.* (Greek)
 Have-1sg always lived-PERFECTIVE.PART in Athens
 ‘I have always lived in Athens.’

- Cross-linguistically, the Universal reading depends on the viewpoint aspect of the perfect participle (IAI)

-- Only stative predicates and the progressive can form Universal perfects in English.

- (40) a. Since 2000, Virginia has been a writer. Universal
 b. Virginia has been writing a novel for a month now. Universal
 c. We have been driving ever since 8 this morning. Universal
- (41) a. Since 2000, Virginia has written a novel. Universal not available
 b. * Virginia has written a novel for a month now.
 c. Since 8 this morning, we have driven. Universal not available
 d. * We have driven ever since 8 this morning.

-- Greek obligatorily marks perfect participles as perfective (cf. (39)), and as a result the Universal perfect is not possible in this language.

-- Bulgarian allows non-perfective perfect participles and these are employed to yield a Universal perfect reading, in a role similar to the progressive in English.

(42) a. *Maria (*vinagi) e obiknala Ivan* (Bulgarian)
 Maria always be-3sg love-PERFECTIVE-PERFECT Ivan
 Not: ‘Maria has always loved Ivan.’
 Only: ‘Maria has fallen in love with Ivan.’

- b. Maria vinagi e običala Ivan. Universal
 Maria always be-3sg love-*IMPERF*-*PERFECT* Ivan
 ‘Maria has always loved Ivan.’

-- Portuguese does not allow a Resultative reading of the perfect (Brugger 1998, Giorgi and Pianesi 1998, Schmitt 2001). This follows, if in this language the perfect necessarily selects an Asp with the feature specification [IMPERFECTIVE].

- (43) O João tem saído tarde.
 the J. has left late
 only: ‘Joao has been leaving late.’
 Not: ‘Joao has left late.’

-- Bulgarian requires the perfective perfect participle (and a telic event) for the Resultative meaning

- (44) Maria e obiknala Ivan (# no veče ne go običa)
 Maria be-3SG love-*PERFECTIVE*-*PERFECT* Ivan but already not him love
 ‘Maria has fallen in love with Ivan (# but doesn’t love him anymore).’

- (45) a. * Maria e pristigala sega.
 Maria is arrive-*IMPERF*-*PERFECT* now
 ‘Maria has now arrived.’

- b. # Maria e pristigala i šte sedi do utre.
 Maria is arrive-*IMPERF*-*PERFECT* and will stay to tomorrow
 ‘Maria has arrived and will stay until tomorrow.’

- c. Maria e pristignala sega.
 Maria is arrive-*PERFECTIVE*-*PERFECT* now
 ‘Maria has arrived now.’

- d. Maria e pristignala i šte sedi do utre.
 Maria is arrive-*PERFECTIVE*-*PERFECT* and will stay till tomorrow
 ‘Maria has arrived and will stay until tomorrow.’

- e. Maria e pristignala (# no veče si trâgna)
 Maria is arrive-*PERFECTIVE*-*PERFECT* but already refl left
 ‘Maria has arrived (# but has already left).

- Neither perfective nor imperfective would give us the desired result (cf. (31) and (32)). We need to define another aspectual category, *RESULTATIVE*, that combines with telic predicates (treat it as a viewpoint aspect, though clearly it involves event decomposition, unlike perfective and imperfective).

- (46) $[[\text{RESULTATIVE}]] = \lambda P \lambda t \exists e_1 \exists e_2 [\text{Result}(e_2, e_1) \ \& \ t \subseteq \tau(e_2) \ \& \ P(e_1)]$

Result(e_2, e_1) iff e_1 is a telic event and e_2 is the result state of e_1

- (47) a. Alicia has lost her glasses.
 b. [PERFECT [RESULTATIVE [Alicia lose her glasses]]] =
 = $\lambda t_i. \exists t'_i [XN(t', t) \& \exists e_1 \exists e_2 [\text{Result}(e_2, e_1) \& t' \subseteq \tau(e_2) \& \text{Alicia-lose-her-glasses}(e_1)]]$

- Interpretive effect of the viewpoint aspects and their morphological realization in English.

(48)

Perfect Type	Semantics	Morphology	Aktionsart
Universal	[IMPERFECTIVE]	non-progressive	state
		progressive	activity, telic
Experiential	[PERFECTIVE]	non-progressive	any
	[IMPERFECTIVE]	non-progressive	state
		progressive	activity, telic
Resultative	[RESULTATIVE]	non-progressive	telic
Recent Past	[PERFECTIVE]	non-progressive	any
	[RESULTATIVE]	non-progressive	telic
	[IMPERFECTIVE]	non-progressive	state
		progressive	activity, telic

3.4.2 THE ROLE OF ADVERBIALS

- The Universal perfect requires the presence of adverbials (IAI, Kiparsky 2002)

- (49) a. Maya has been sick
 b. Maya has been sick since Tuesday
 c. For three days, Maya has been sick.

(50) He has had brown eyes *(since he was born).

- Specialized adverbials for Recent Past perfect

- (51) a. I have been sick lately.
 b. I have been working very hard these days.
 c. I have been losing my glasses recently.

- Dowty (1979): the effect of preposing adverbials

- (52) a. Maya has been sick for 4 days Universal or Experiential
 b. For 4 days, Maya has been sick Universal only

3.4.3 THE INCLUSION OF THE ENDPOINTS OF THE PTS

- Mittwoch (1988): in a Universal perfect the argument of a *since* adverbial is included in the event time, in the Existential perfect it is excluded

(53) Sam has been in Boston since Tuesday

- IAI: R in the Universal perfect is contained in the event time.

3.4.4 TEMPORAL INTERPRETATION

- Declerck (1991), Brugger (1998)

(54) a. John convinced his coach that he was too weak to play. (simultaneous, shifted)
b. John is convincing his coach that he was too weak to play. (shifted)

(55) a. John has convinced his coach that he was too weak to play. (shifted)
b. Since Friday John has been convincing his coach... (shifted)
c. John has convinced his coach once before... (simultaneous, shifted)

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