

## Imperfective and Progressive

(Deo 2006, ch 2 and especially 3)

### 1. Semantic similarities among lexical statives, imperfective (habitual) and progressive.

■ Divisiveness (see also Cumulativity §2.3.3):

- (1) A predicate P is DIVISIBLE iff, if it is true of an event / time, it is also true of any part of that event / time.
- (2) a. John lived in Paris for five years. LEXICAL STATIVE  
b.  $\Rightarrow$  John lived in Paris at every subinterval of those five years.
- (3) a. John built a house in three years. ACCOMPLISHMENT  
b.  $\not\Rightarrow$  John built a house at every subinterval of those three years.
- (4) a. John was building a house for three years. ACCOMP. IN PROGRESSIVE  
b.  $\Rightarrow$  John was building a house at every subinterval of those three years.
- (5) a. For several years, John built-IMPERF a house for every low-income client that approached him. ACCOMP. IN IMPERF (HABITUAL)  
b.  $\Rightarrow$  At every subinterval of those several years, John built a house for every lowincome client that approached him.

■ Interpretation of certain adverbials: *between t1 and t2* (Not in Deo 2006)

- (6) a. Between 10 and 11, Maya was upset. LEXICAL STATIVE  
 $\Rightarrow$  durative
- (7) Between 10 and 11, Maya danced jazz. ACTIVITY  
 $\Rightarrow$  durative or inclusive
- (8) a. Between 10 and 11, Maya was dancing jazz. ACTIVITY IN PROGRESSIVE  
 $\Rightarrow$  durative
- (9) a. Between 2003 and 2008, Maya danced-IMPERF jazz. ACTIVITY IN IMPERF (HAB)  
 $\Rightarrow$  durative

See also interpretation in narrative discourse §2.3.4: (23c) vs (23a), progr (23b), imperf (24b).

See also temporal relation to *when*-clauses §2.3.6: (30) vs (32), progr (33), imperf (34).

■ Time-span adverbials: *for* vs *in*.

- (10) a. John lived in Paris for a year. LEXICAL STATIVE  
 b. \*John lived in Paris in a year.
- (11) a. \* John built the model airplane for an hour. ACCOMPLISHMENT  
 b. John built the model airplane in an hour.
- (12) a. John was building the model airplane for an hour. ACCOMPL. IN PROGR  
 b. \*John was building the model airplane in an hour.
- (13) a. John built model airplanes for several years. ACCOMP. IN IMPERF (HAB)  
 b. #John built model airplanes in several years.

(14) When the Progressive and the Imperfective combine with a lexical predicate that is non-stative, the output is a stative predicate.

## 2. Typology and diachrony

■ Typology (§3.2.1, §3.2.2):

- Some languages, e.g. Hindi, have two different forms: one for imperfective (for lexical statives (7d) and for habituals (7b)) and one for progressive (7a).
- But it is also often the case that a language, e.g. Pawri, uses the same form for the imperfective (lexical statives (4c) and habituals (4b)) and for the progressive (4a).

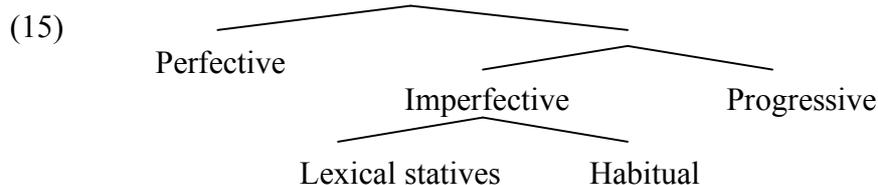
■ Diachrony:

Morphology originally restricted to progressive tends to generalize to include imperfective interpretations such as stative and habitual.

Example: Old Gujarati: Imperf (14) and periphrastic form for Progr (15)



Modern Gujarati: uniformly employs periphrastic form in imperfective and progressive contexts: (16).



### 3. A restriction on the Progressive

#### ■ Two types of lexical statives

(16)	NON-EPISODIC TEMPORALLY UNBOUNDED <u>INDIVIDUAL LEVEL</u> be intelligent know French weigh 100 kgs	EPISODIC TEMPORALLY DELIMITED <u>STAGE LEVEL</u> be hungry rest on the bottom step lie under the bed stand there	(Deo 2006) (Dowty 1979) (Carlson 1977)
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(17) A predicate P is EPISODIC iff any time t at which P is true is preceded or followed by a non-P time.

#### ■ Originally, it was believed that lexical statives in general are incompatible with the progressive. But now it is widely acknowledged that some are compatible with it.

- (19) a. \* John is knowing French.  
b. \* This animal is weighing 100 kgs.
- (20) a. The socks are lying under the bed.  
b. The box is standing there.

(21) The Progressive can only apply to a lexical stative if the lexical stative is episodic.
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**QUESTION 1:** The examples below with episodic lexical statives in the progressive are odd. Does this contradict the essence of our generalization (21)?

- (22) a. ?? New Orleans is lying at the mouth of the Mississippi River.  
b. ?? John's house is standing at the corner of X Street.

### 4. Deo's analysis

#### ■ Goals: generalizations below and test (6)-(9).

Lexical eventive + IMPERFECT: acquires stative properties & has habitual interpretation  
Lexical stative + IMPERFECT: retains stative properties

Lexical eventive + PROGRESSIVE: acquires stative properties & has on-going interpretation.

Lexical stative + PROGRESSIVE: retains stative properties with episodic lexical statives, crashes with non-episodic lexical statives.

■ Progressive:

(P is a variable over predicates, t is a variable over time intervals, e and e' are variables over events/states and  $\tau(e)$  is the run-time of e)

$$(23) \quad \text{AT}(P, t) \quad = \quad \exists e [ \tau(e) = t \wedge P(e) ] \quad \text{when } P \text{ is eventive}$$

$$= \quad \exists e [ \tau(e) = t \wedge P(e) \wedge \neg \exists e' [ P(e') \wedge \tau(e) \subset \tau(e') ] ] \quad \text{when } P \text{ is stative}^1$$

(24) With an eventive predicate P, the value of t in  $\text{AT}(P, t)$  is equivalent to the run-time  $\tau(e)$  of the eventuality e instantiating P.

With a stative predicate P, the value of t in  $\text{AT}(P, t)$  is the maximal interval for which P is true.

$$(25) \quad \text{PROG} \quad = \quad \lambda P_{\langle s, t \rangle}. \lambda t. \exists t' [ t \subset_{\text{nf}} t' \wedge \text{AT}(P, t') ]$$

(26) With lexically eventive P:

Between 10 and 11, Maya was dancing jazz.  $\Rightarrow$  durative

**QUESTION 2:** What do we predict with a lexically stative P? Are these predictions met in (27)? Explain.

- (27) a. Between 10 and 11, John was sitting on a bench.  
 b. \* Between 1882 and 1937, my grand-grandmother was knowing French.

■ Imperfective:

$$(28) \quad \text{INST}(P, t) \quad = \quad \exists e [ \tau(e) \subseteq t \wedge P(e) ] \quad \text{when } P \text{ is eventive}$$

$$= \quad \exists e [ \tau(e) \supseteq t \wedge P(e) ] \quad \text{when } P \text{ is stative}^2$$

(29) With an eventive predicate P,  $\text{INST}(P, t)$  means that the run-time of the event instantiating P is included in the interval t.

With a stative predicate P,  $\text{INST}(P, t)$  means that the run-time of the event instantiating P includes the interval t, that is, P holds at all subintervals of the run-time of the event instantiating P.

$$(30) \quad \text{IMPF} \quad = \quad \lambda P_{\langle s, t \rangle}. \lambda t. \exists t' [ t \subset_{\text{nf}} t' \wedge \text{INST}(P, t') ]$$

(31) With lexically stative P:

Between 10 and 11, Maya was-IMPERF upset.  $\Rightarrow$  durative

**QUESTION 3:** Does this derive the right results for a lexically eventive P, as in (32)? If not, how can we fix it? Consider that IMPF (30) is in competition with PERF(ective) (33).

(32) Between 2003 and 2008, Maya danced-IMPERF jazz.  $\Rightarrow$  durative

$$(33) \quad \text{PERF} \quad = \quad \lambda P_{\langle s, t \rangle}. \lambda t. \exists t' [ t \supseteq t' \wedge \text{INST}(P, t') ]$$

<sup>1</sup> Modified from Deo p. 78.

<sup>2</sup> Modified from Deo p. 68. See also p. 71.