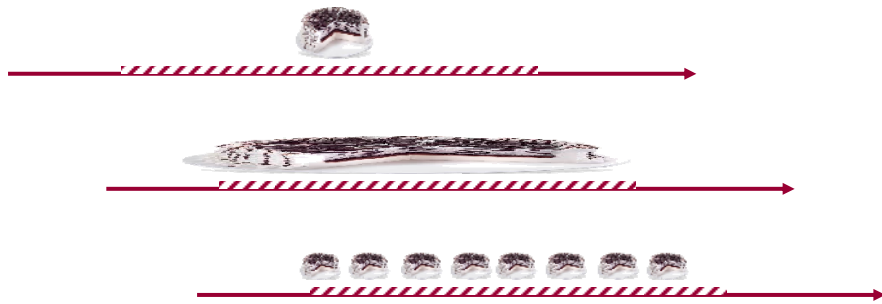


# Eating cake during a scientific talk



*Elle a mangé du gâteau pendant le spectacle*  
(she ate cake during the show)

*Elle a ronflé en une minute*  
(she snored in one minute)

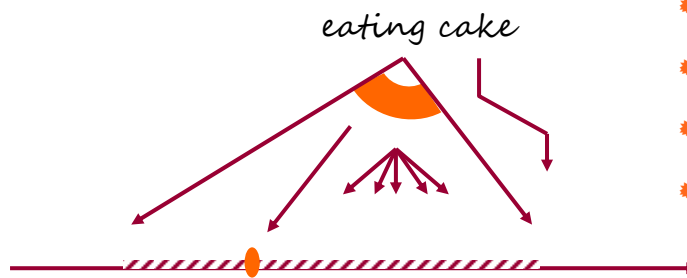
*Elle a mangé en 2010*  
(she ate in 2010)

...

*eat*   *snore*   *.*   *cake*   *in*   *during*   *(for)*   *one min.*   *the show*   *2010*  
*Elle* <pp> <verb> <compl.> <preposition> <durative period>

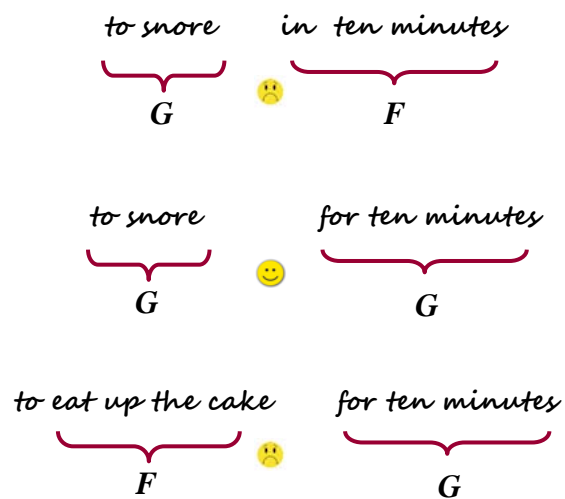
## Interpretation

Can we reverse-engineer  
natural language aspectual processing?

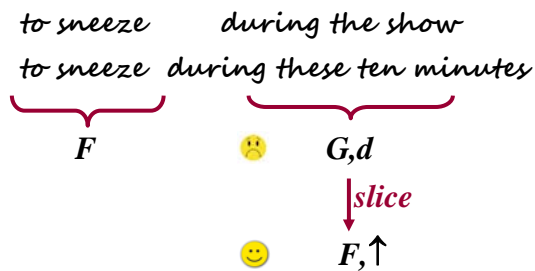


- Viewpoint
- Slicing
- Determination
- Repetition
- Durativity
- Predication
- Inchoativity

## Viewpoint



## Slicing



## Determination (anchoring)

during next week       $G, d$   
during one week       $G, u$   
during a show       $G, d$

Slicing requires the period to be determined (anchored), i.e. located in time.

## Repetition



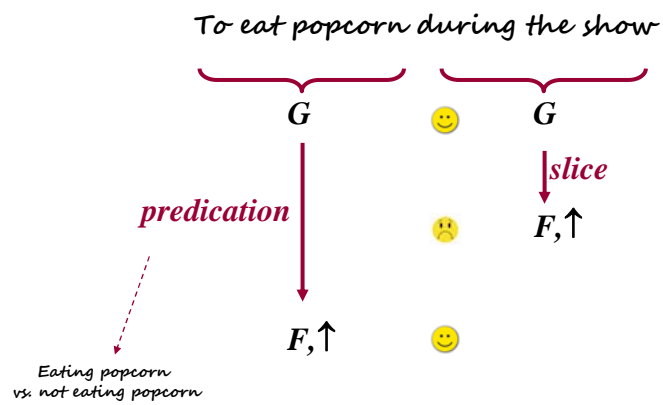
## Duration

Ex: durations in  $\log_{10}(\#sec)$

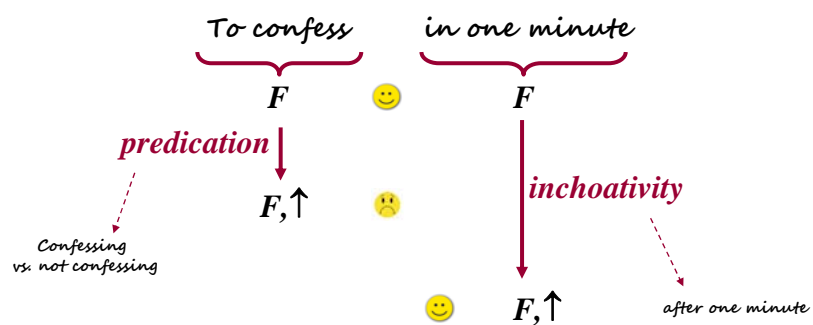
Second: 0  
Minute: 1.8  
Year: 7.5  
Eat (meal): 3.5  
Drive: 2.5  
Sneeze: 0

Repetition is possible when duration difference  $> 1$ .

## Predication



## Inchoativity



## Aspectual Information Structure

Viewpoint (**F** or **G**)  
 Determination (**d** or **u**)  
 Multiplicity (**s** or **m**)  
 Operation  
 Image  
 Duration

	<i>viewp.</i>	<i>det.</i>	<i>duration</i>	<i>operation</i>
<i>en</i> (in)	<b>f</b>	–	–	simult
<i>pendant</i> (for, during)	<b>g</b>	–	–	simult
eat (lunch)	–	–	3.5	
minute	–	<b>u</b>	1.8	
the	–	<b>d</b>	–	
show	–	–	3.8	
2010	–	<b>d</b>	7.5	
"during the show"	<b>g</b>	–	3.8	

## Synchronization

