

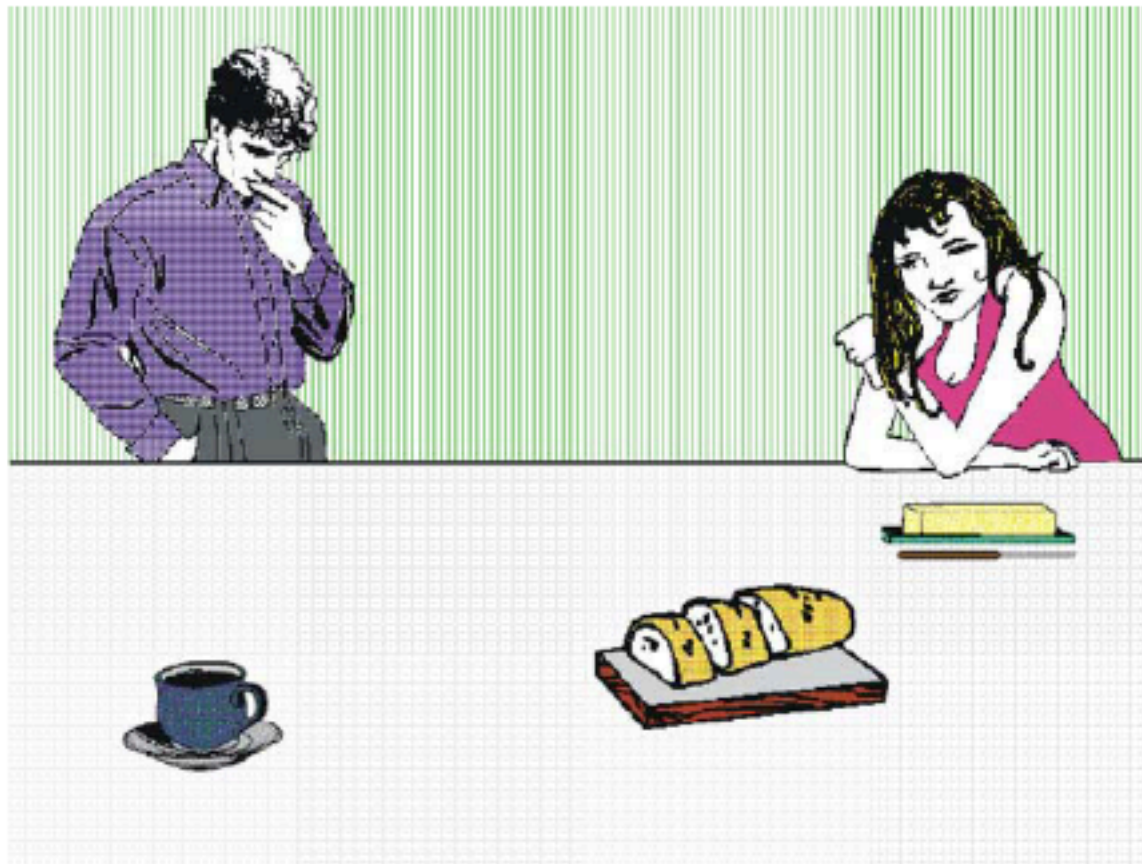
# Today

- More of your ideas about eye-tracking
- What predictions do language comprehenders make when?
- Using nouns to make predictions
- HW3

# Questions

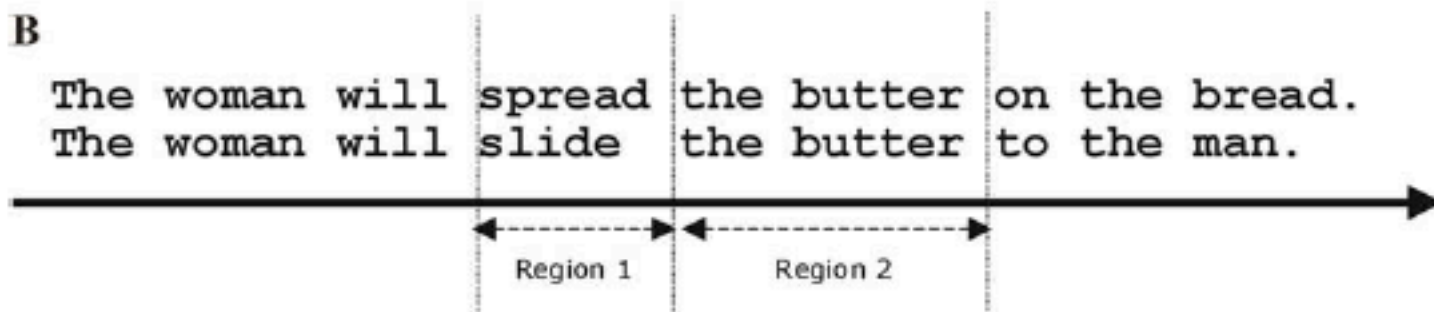
- How could you use eye-tracking to test predictions of the following? (Pick one, and if time allows, talk about the others.) Give an example of what the stimuli would be like (both visual and auditory).
  - An SRN-like model
  - A modal, perceptual symbol model
  - An amodal, abstract symbols model
- What types of language (or comprehension processes) would be particularly hard to study using eye-tracking? Why?

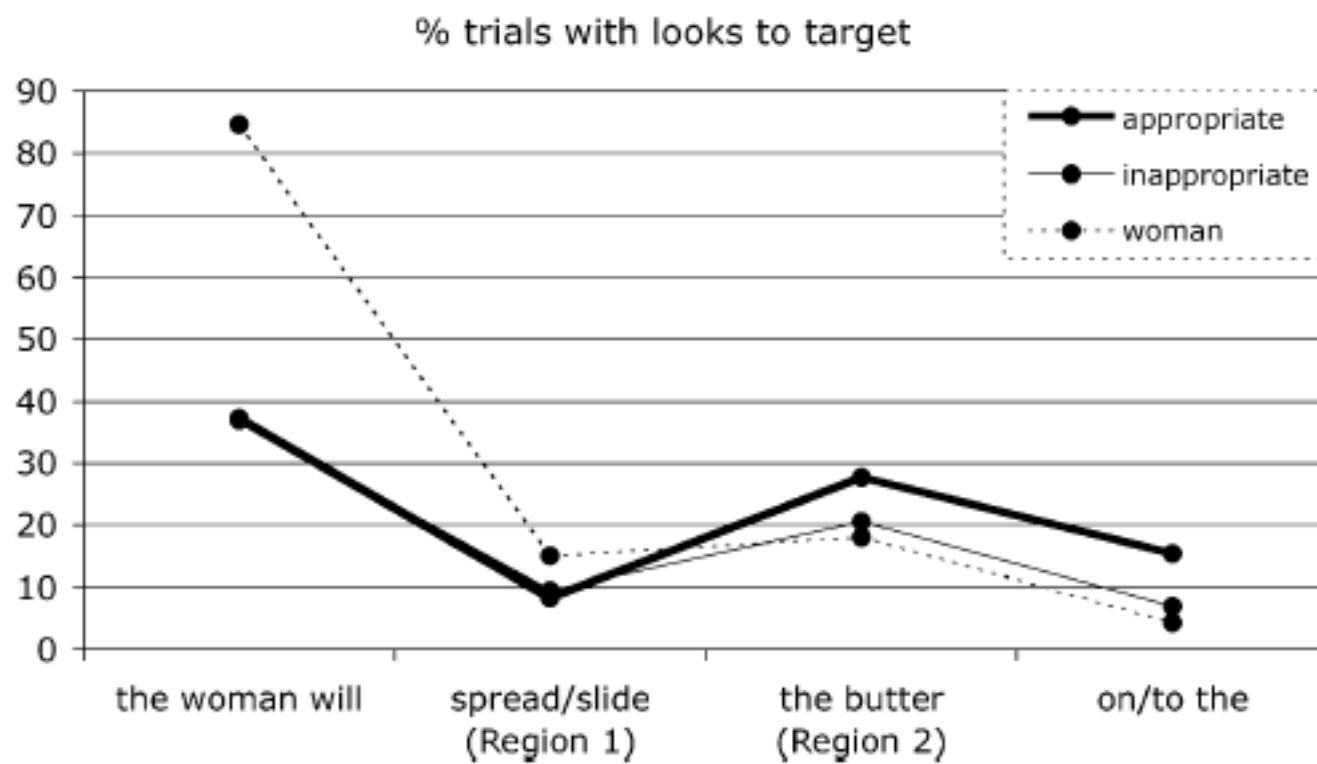
A

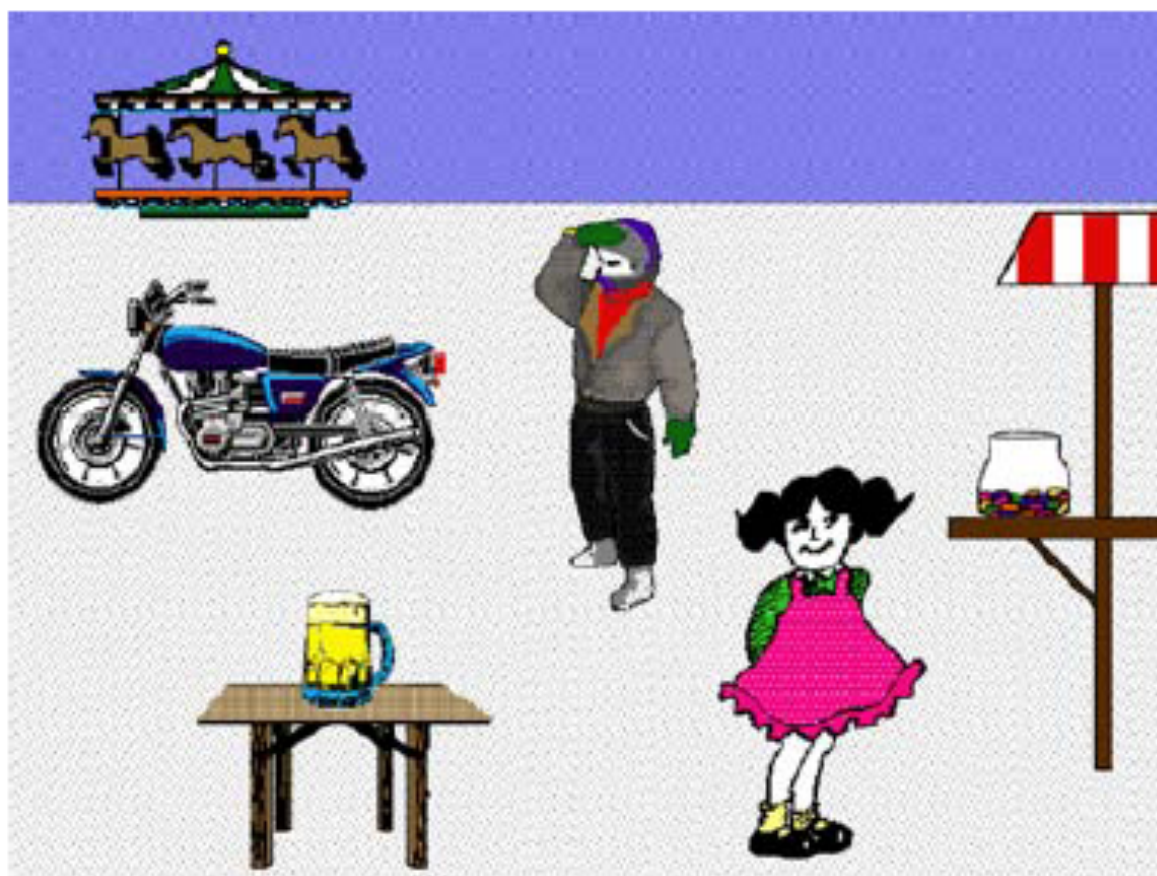


B

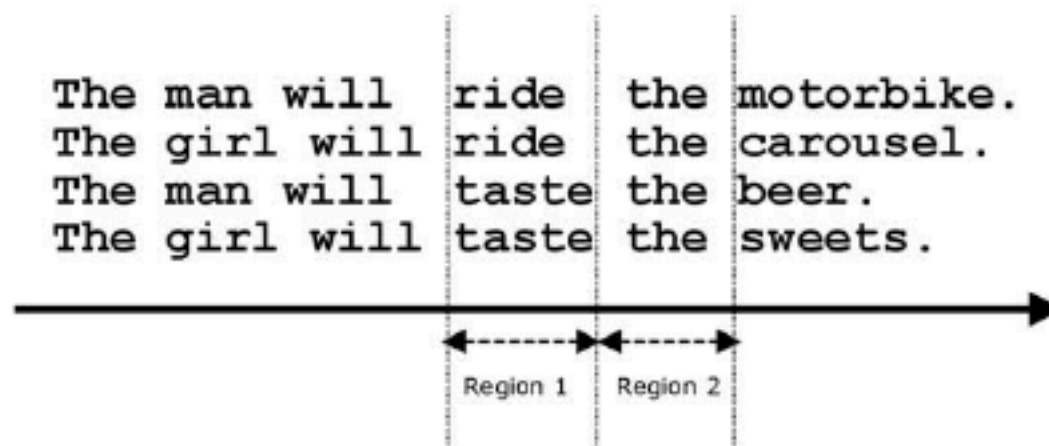
The woman will spread the butter on the bread.  
The woman will slide the butter to the man.



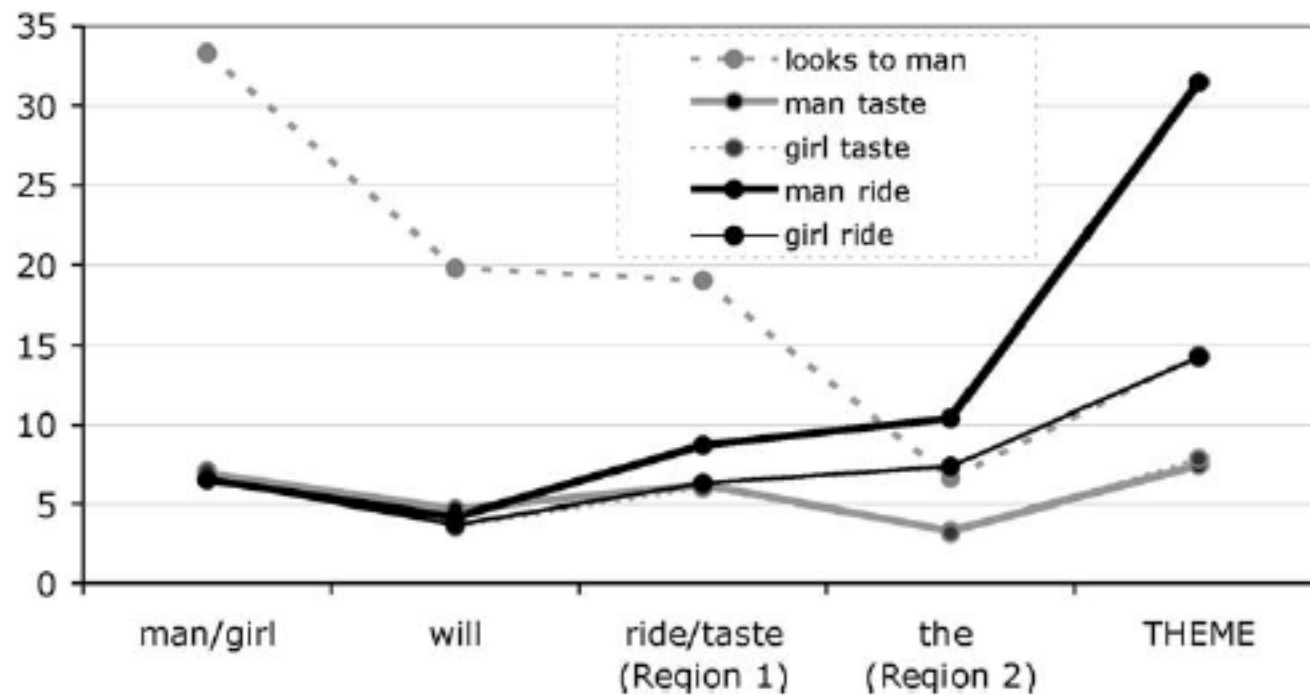




The man will	ride	the motorbike.
The girl will	ride	the carousel.
The man will	taste	the beer.
The girl will	taste	the sweets.



% trials with looks to motorbike



A



B

waitress-nom customer-dat merrily hamburger-acc bring.

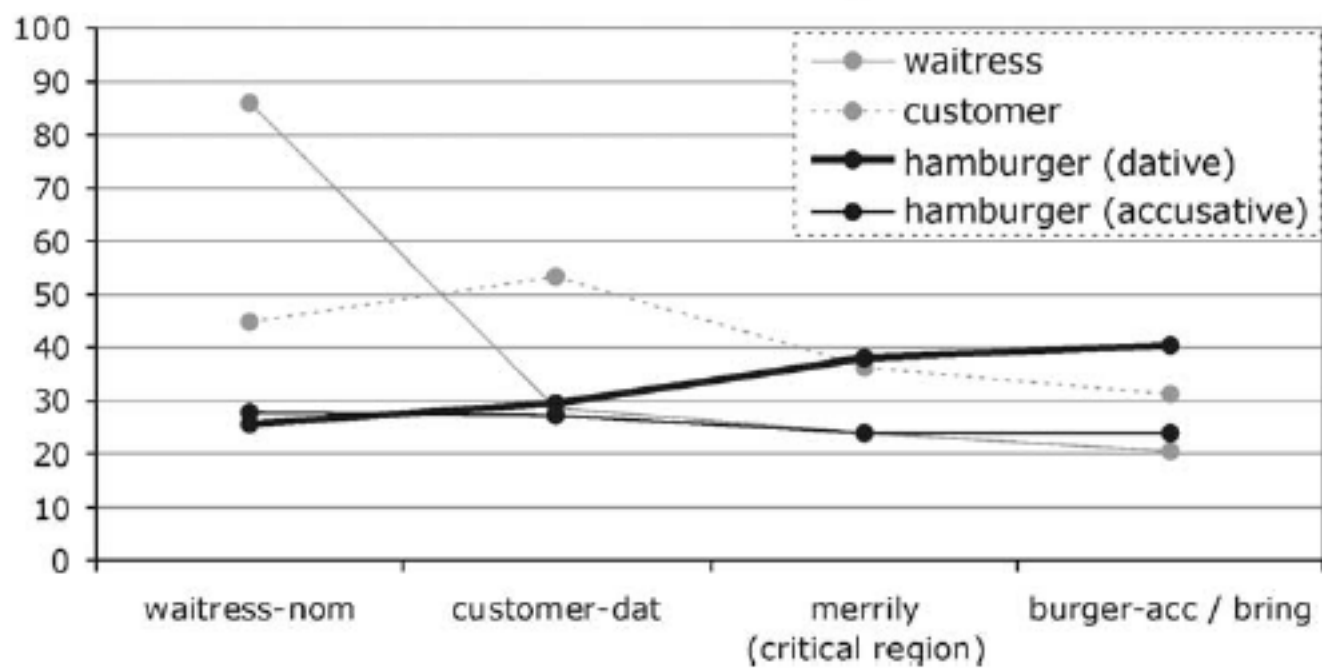
ウェイトレスが 客に 楽し気に ハンバーガーを 運ぶ。



ウェイトレスが 客を 楽し気に からかう。

waitress-nom customer-acc merrily tease.

% trials with looks to target





# Do you predict verbs from nouns?

- Presented written noun followed by verb; ppts had to read noun silently and verb aloud.
- Nouns and verbs could be
  - related in that the noun described an agent, patient, instrument, or location typical for the verb (e.g. guitar-play)
  - unrelated (e.g. guitar-jog)

**Table 1**  
**Mean Verb-Naming Latencies (in Milliseconds) and**  
**Percentages of Pronunciation Errors, Experiment 1**

Dependent Measure	Agents		Patients		Instruments		Locations	
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Response latency								
Unrelated	592	21	583	20	565	20	578	16
Related	574	19	561	18	549	17	560	19
Facilitation	18*		22*		16*		18*	
Percentage of errors								
Unrelated	1.9	0.8	3.2	1.4	1.4	0.7	2.5	1.2
Related	1.9	0.9	1.9	0.8	1.1	0.6	1.5	0.8
Facilitation	0		1.3		0.3		1.0	

\*Significant by participants and items.

# So...

- People use whatever they have at hand (verbs, nouns) to make predictions about what will come next (or just later)
- They make these predictions on the basis of not merely co-occurrence statistics (though this might be a factor), but also likelihood of an event of a particular type.
- This results in eye-movements to the physical manifestations of the things they think will be mentioned and also faster reading times