

Concepts be damned! New insights from expressive adjectives

Stanley Donahoo^{1,2}, Valeria Pfeifer^{2,3}, Vicky Lai^{2,3}

stanleydonahoo@email.arizona.edu

1. Department of Linguistics; 2. Department of Psychology; 3. Cognitive Science program, University of Arizona

Background

Semantic Compositionality

• Studies on adjective-noun composition (e.g. *red boat* vs. *xhl boat*) suggest:

- Early integration (184-256 ms)
- Of featural information ('*red*' boat)
- In the left anterior temporal lobe^{1,2}
- But compositional effects don't extend to all cases³
- word lists: *cup boat*
- numeral quantification: *two boats*

red+boat	xhl+boat	cup+boat	two+boats
✓	✗	✗	✗

Expressives (swears) and Compositionality

- Unique semantics: not-at-issue^{4,5,6}
- Expressive adjectives do not directly modify their noun
- They convey information about the speaker's attitude
- Unique syntax: non-localness⁷

• *damn* can describe a speaker's attitude toward the situation, and/or modify the noun:

- *I lost my damn watch and now I have to get a new one.*
- *I lost my green watch and now I have to get a new one.*

Research Question

Do expressives like *damn* integrate conceptually with their nouns in ways similar to that of lexical adjectives?

black+dog	damn+dog
✓	??

Methods

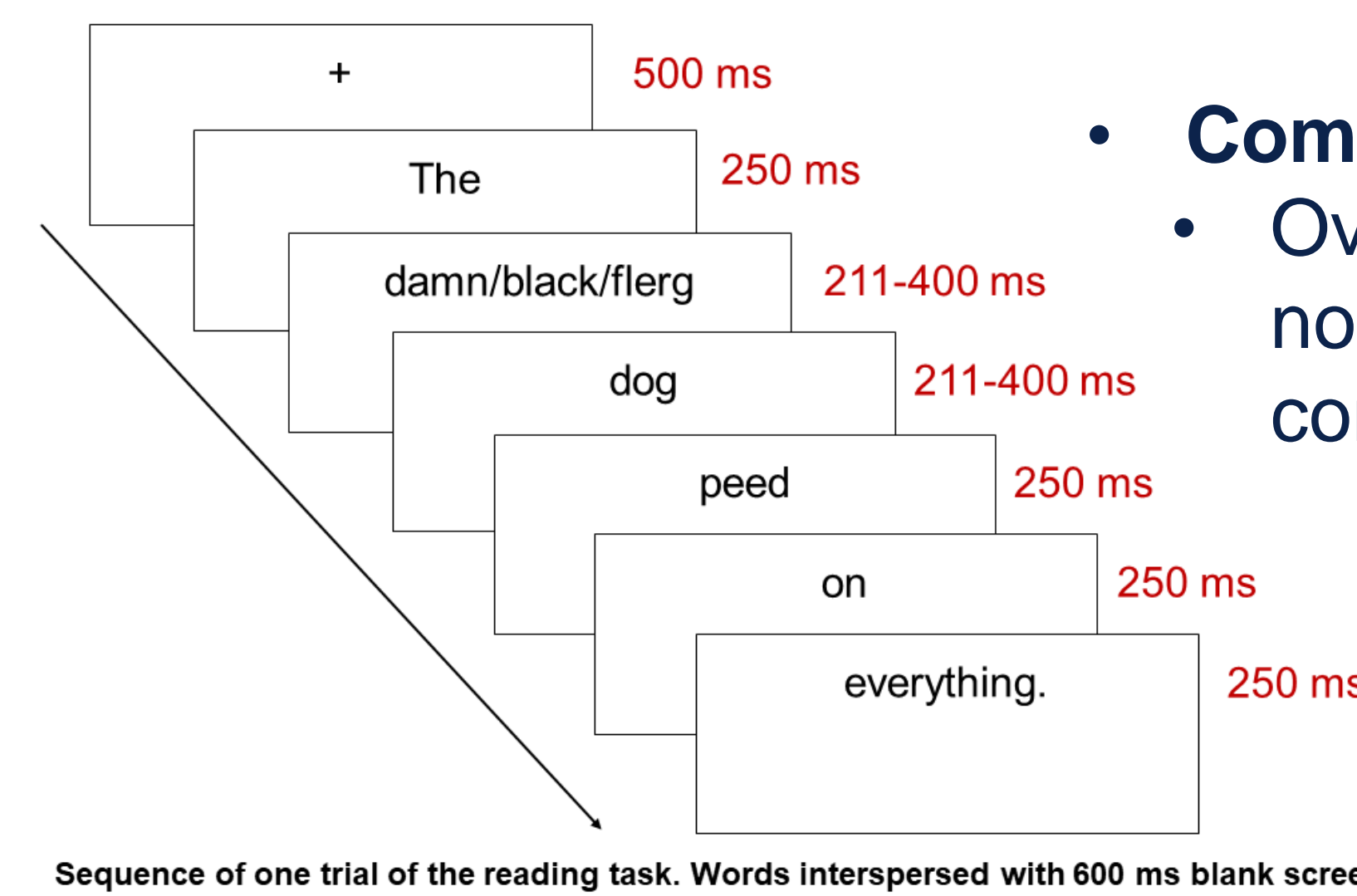
- **Participants** 24 native English-speaking students, right handed, ages 18-22
- **Materials** 40 descriptive adjectives, 40 expressive adjectives, 40 pseudoword adjectives within same carrier sentence, matched for frequency, valence, orthographic and phonological neighbours

Example Stimuli

	Det.	Adj.	Noun	Verb	Wrap-up
Descriptive Adj.	The	black	dog	peed	on everything.
Expressive Adj.	The	damn	dog	peed	on everything.
Pseudoword Adj.	The	flerg	dog	peed	on everything.

Procedure

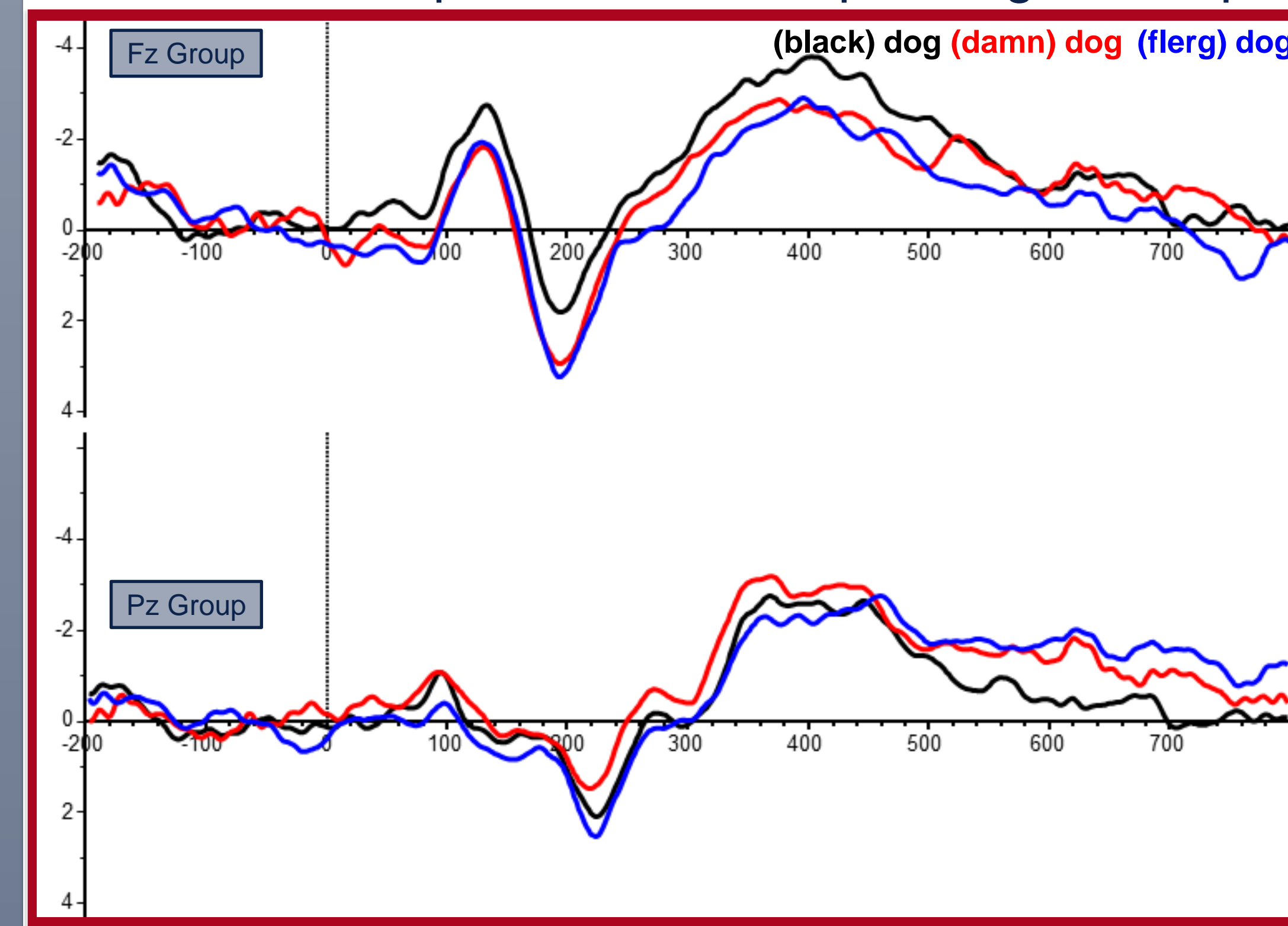
- **Task** Word-by-word reading, comprehension Qs followed 20% of trials; ERPs timelocked to adjective and noun



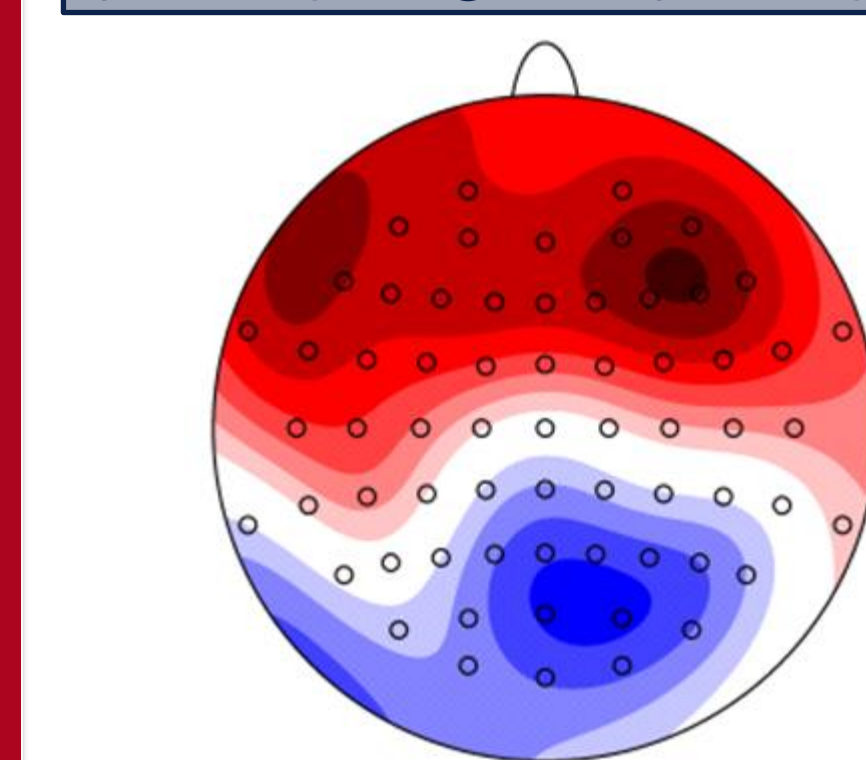
- **Comprehension Results**
- Overall accuracy: 94%, no differences in condition

Results: Noun ERPs

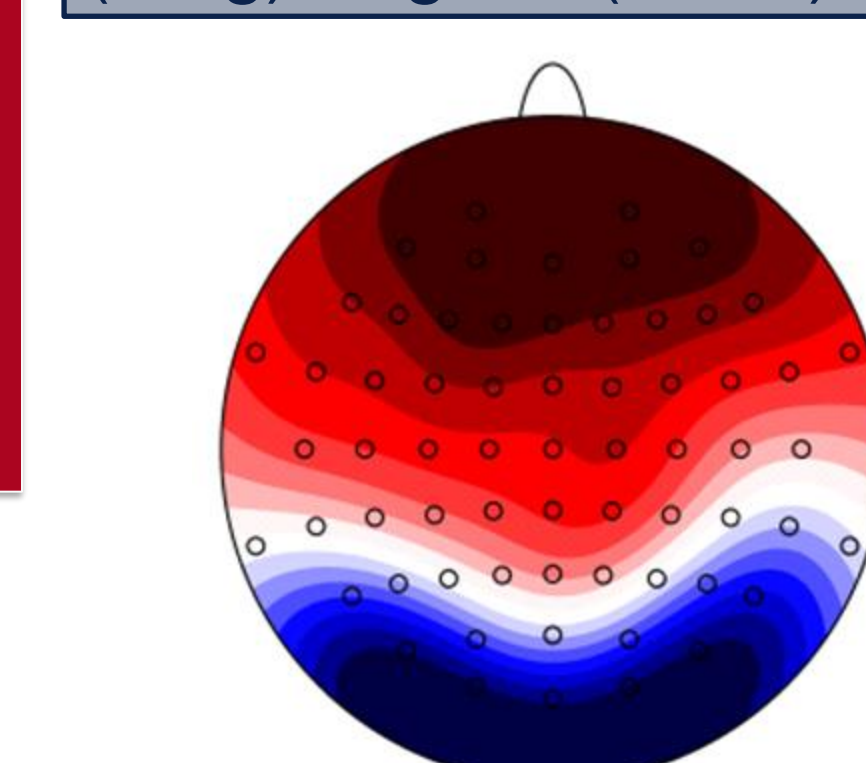
- Noun responses differ, depending on the preceding adjective



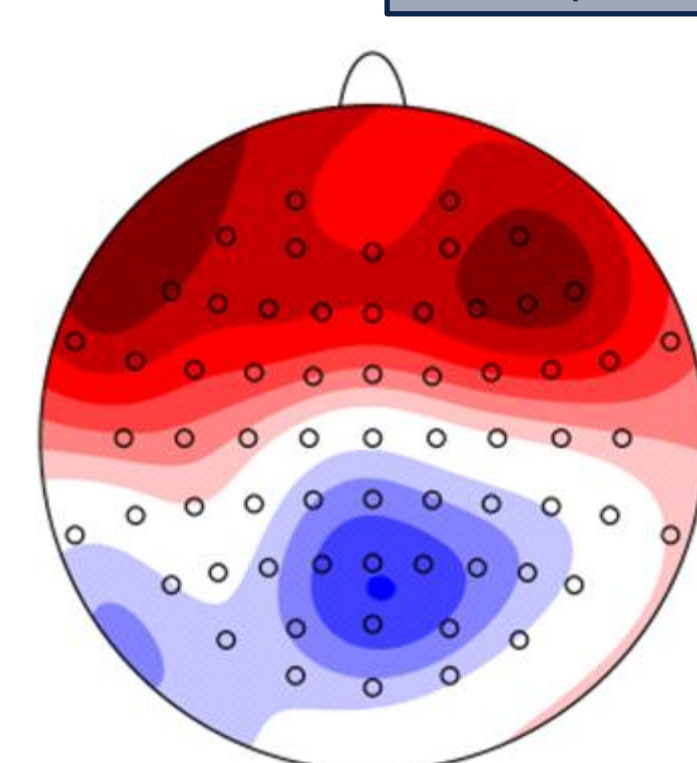
(damn) dog vs. (black) dog



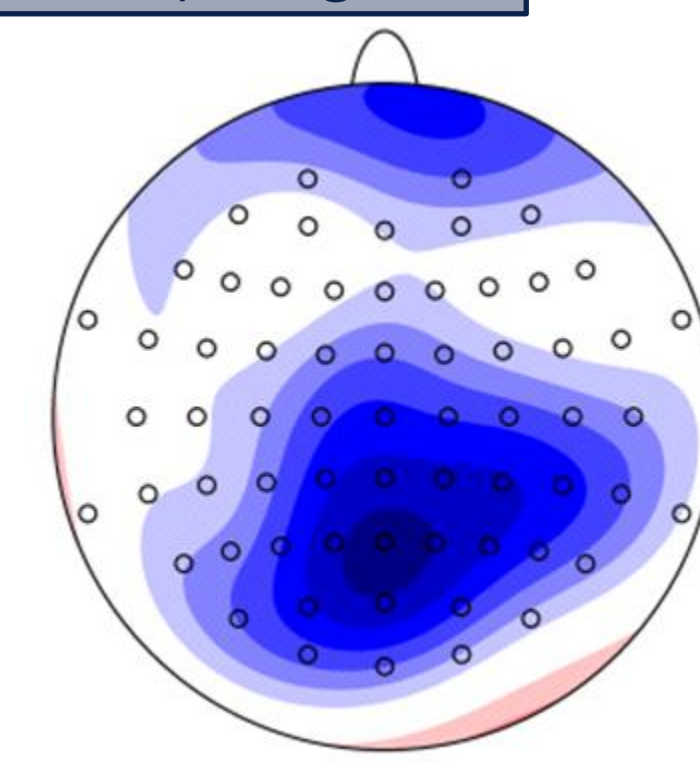
(flerg) dog vs. (black) dog



(damn) dog vs. (black) dog



200 ms - 480 ms



550 ms - 750 ms

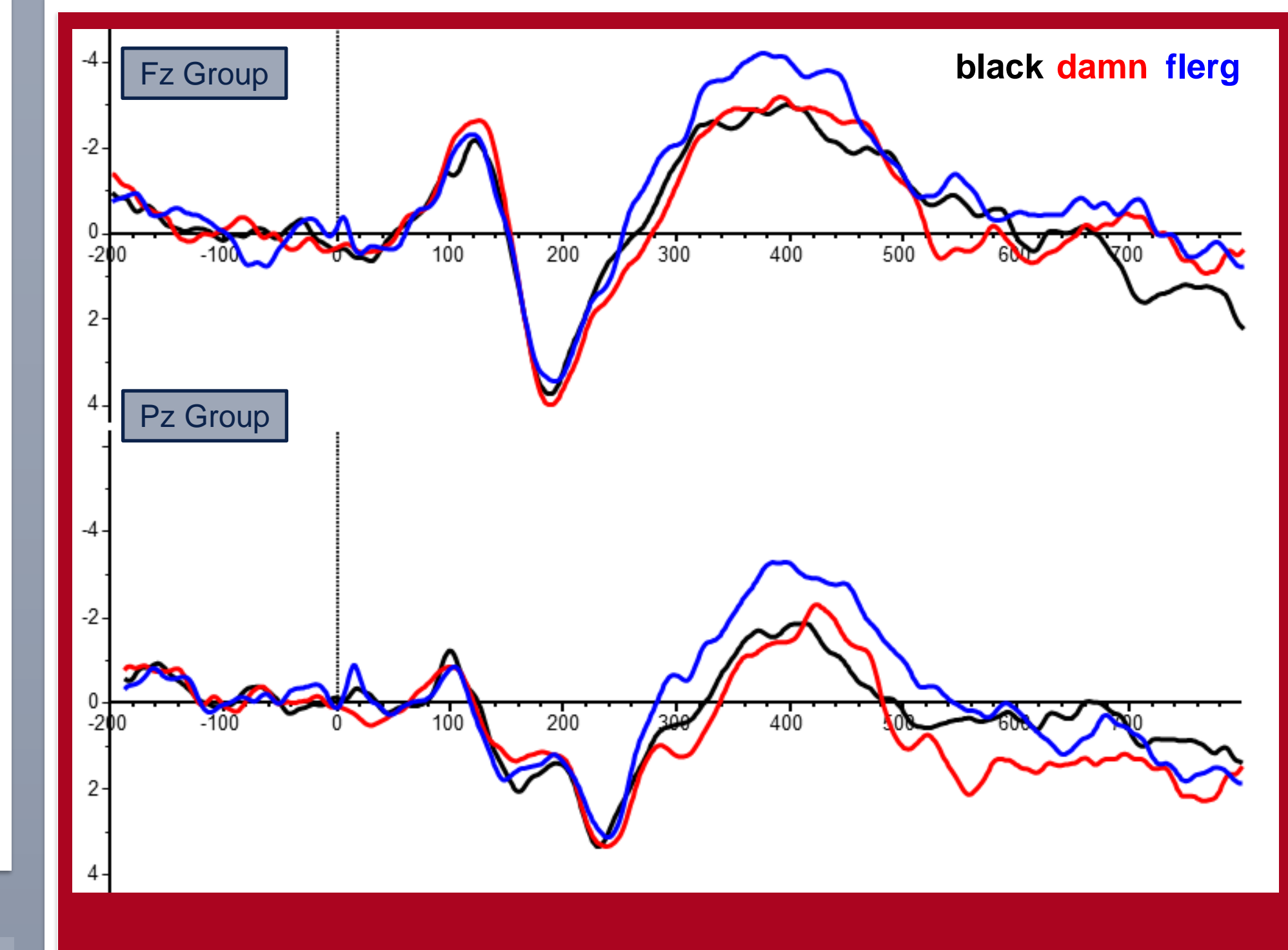
- Swear nouns continue to show an additional emotionality effect

184 ms - 256 ms

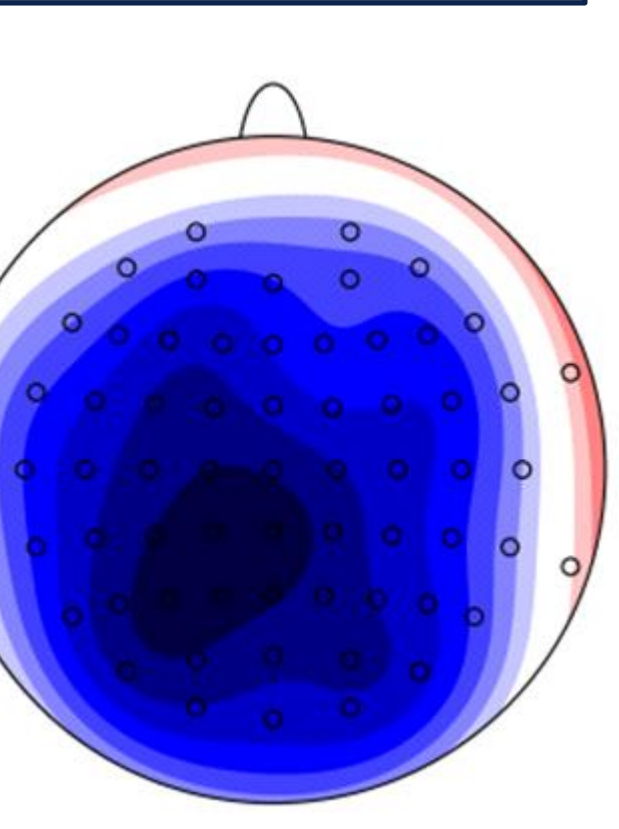
- Early, Swear and pseudoword nouns show sig. frontal effect rel. to descriptive nouns

- No difference for Swears compared to Pseudowords

Results: Adjective ERPs



Fleg vs. Black



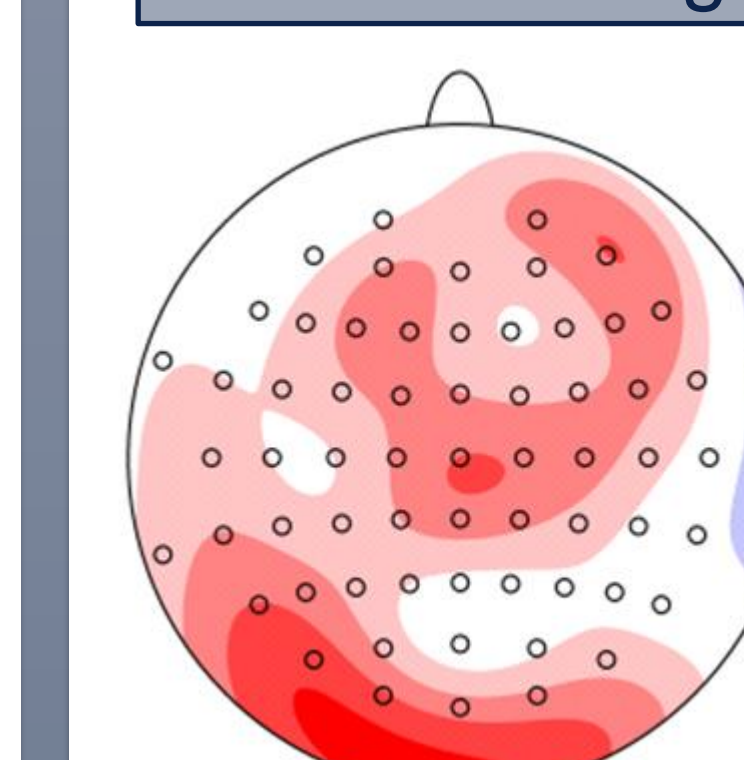
300 ms - 500 ms

- Pseudowords produce typical N400 effects

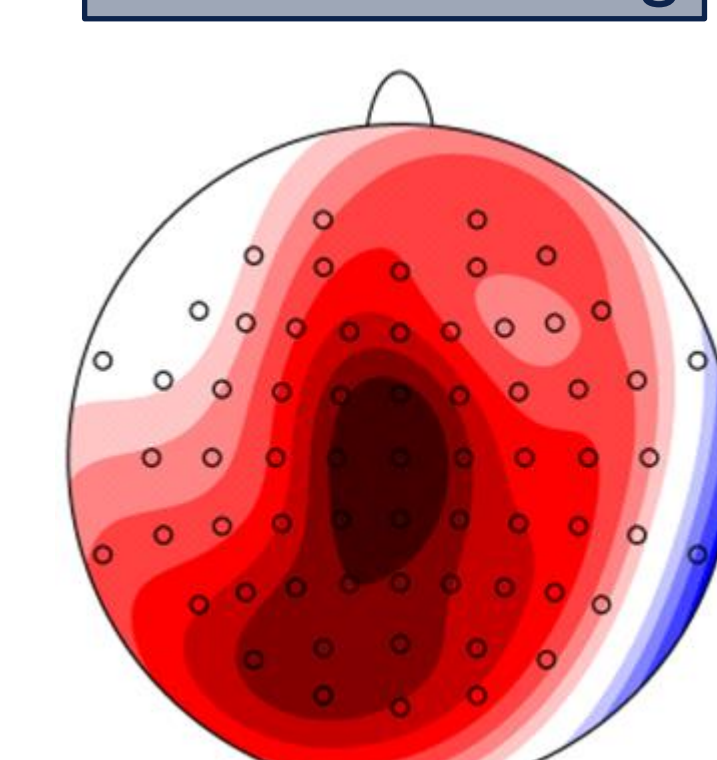
- Swears elicit larger LPC than non-swears, rel. to pseudowords

- But *no* differences for swears vs. non-swears directly

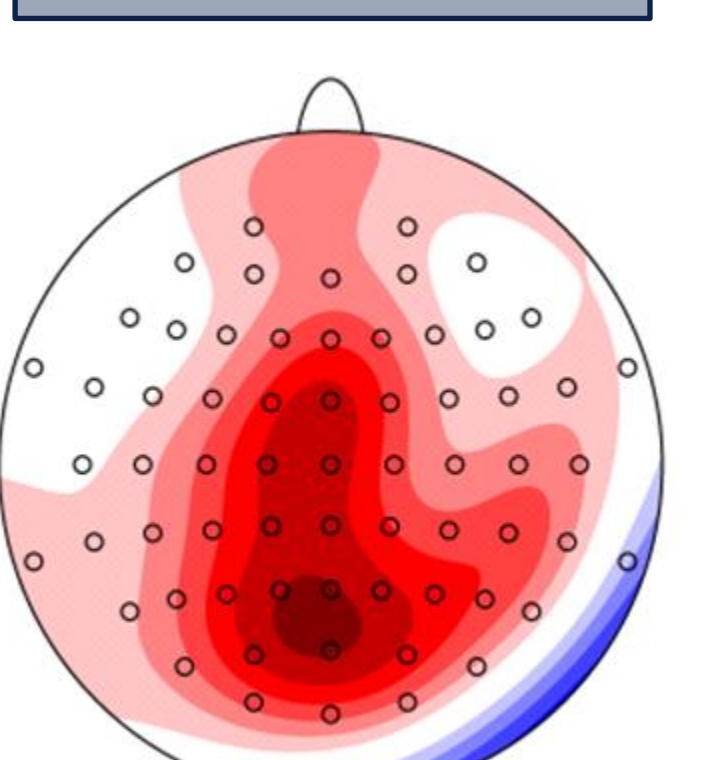
Black vs. Fleg



Damn vs. Fleg



Damn vs. Black



500 ms - 650 ms

-1.5 μV 0 μV 1.5 μV

Discussion

- **Adjective:** Swears elicit a larger LPC than non-swears
 - A specific pragmatic tabooess effect⁸
 - Participants "wait and see" what is being damned
- **Noun:** Swears elicit similar effects as pseudowords, suggests that:
 - **Swears are not necessarily bound to conceptual integration**, unlike other adjectives
 - Possibly **due to their not-at-issueness or unique syntax**
 - Suggests conceptual integration is delimited to situations where one combining element characterizes a property of the other

References

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