

Using Laboratories to Augment Content Analyses

Content Analysis PDW, AOM 2022

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So, let's test this today...

Four of my intentions:

- Positive (tone_pos & emo_pos)
- Not Negative (tone_neg & emo_neg)
- Future-focused (focusfuture)
- Provide Insights (insight)

Methods:

- Descript transcribing live
- LIWC-22 to analyze
- I'll come back up for 1 minute later

Content Analysis

is not perfect...

Big Idea

Experiments can be used to
supplement traditional content
analyses

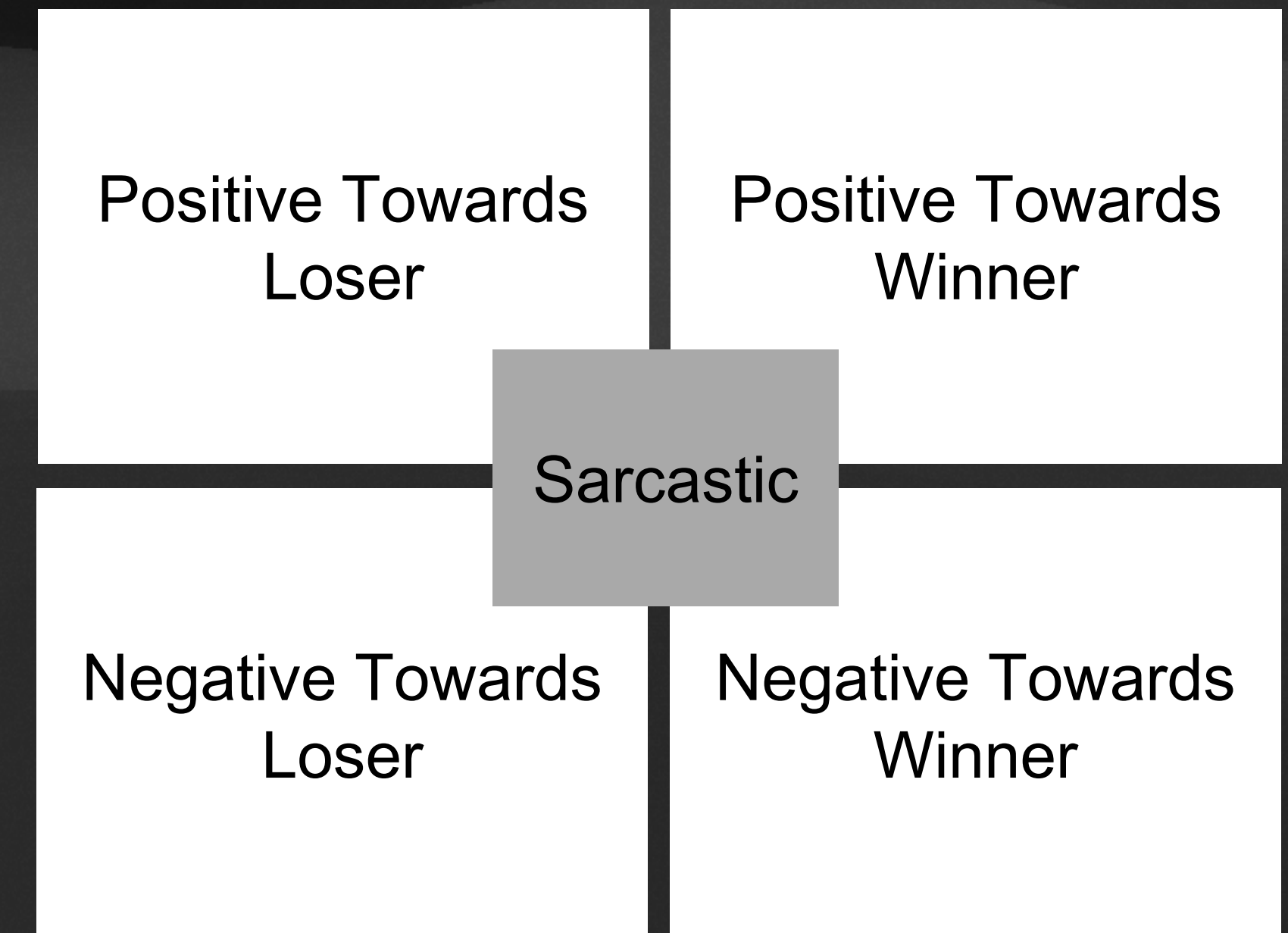
Content analysis scores
are perfectly correlated with
neither the speaker's intentions,
nor the readers' interpretation

For example,
my dry sense of humor...

The back story

Study of organizational identification, outcomes, and online engagement

- Study of tens of thousands of Facebook posts in response to NCAA football games
- Our content analyses techniques had trouble coding even simple categories such as positive and negative
- Brought in human coders, but still disagreement



Appendix A, Table 1. Inter-rater Reliability of Emotional Content

Rater or Software Package		1	2	3
1.	Human Rater 1			
2.	Human Rater 2	0.42 (62.37%)		
3.	LIWC-22	0.10 (39.90%)	0.15 (43.21%)	
4.	<u>Adoreboard</u>	0.04 (36.93%)	0.10 (40.77%)	0.16 (38.33%)

N = 574; Percentage agreement is provided in parentheses.

OREGON --- WHAT A COMPLETE JOKE
OF A FOOTBALL TEAM!!!!!!!!!!!! LOL
!!!!HAHAHAHAHAHAHAHAHAHAHAHAHAHA

Nd fans don't show unless they
win.

Experimental Design

- 203 Undergraduate students
- Continuous measure of identification (6 items)
- Randomly assigned game outcomes
- Measure facial expressions (iMotions ODC)
- Have participants choose whether to post
- Have participants rate the post (7-point scale)
 - Overall positive/negative
 - Positive/Negative towards the winner and loser
 - Sarcasm

Example Results

from experimental analysis

- Many DVs, statistically significant MANOVA
- Positive facial expressions had a positive and marginally significant effect on the likelihood of making an online comment ($\beta = 0.02$, $p < 0.10$), but negative facial expressions did not ($\beta = -0.04$, n.s.).

Example Results

from experimental analysis

Table 4. Ordinary Least Squares Regression Results from Follow-on Analyses Predicting Content of Online Posts

Variables	Positive		Negative		Sarcastic
	Toward Winner Model 1	Toward Loser Model 2	Toward Winner Model 3	Toward Loser Model 4	Overall Model 5
Identification:					
with Winner	0.59** (0.08)	−0.04 (0.05)	−0.07 (0.06)	−0.10 (0.10)	−0.11 (0.08)
with Loser	−0.38** (0.09)	0.31** (0.05)	0.01 (0.07)	−0.09 (0.11)	0.01 (0.09)
Disidentification:					
with Winner	−0.22 [†] (0.13)	−0.10 (0.07)	0.43** (0.09)	0.03 (0.15)	0.27* (0.13)
with Loser	−0.05 (0.13)	−0.11 (0.07)	−0.05 (0.09)	0.42** (0.15)	0.19 (0.13)
Constant	4.38** (0.35)	1.39** (0.21)	0.92** (0.25)	3.06** (0.42)	1.51** (0.35)
Observations	181	181	181	181	181
R-squared	0.37	0.19	0.17	0.05	0.07

Standard errors provided in parentheses. Two-tailed *p*-values.

** $p < 0.01$; * $p < 0.05$; [†] $p < 0.10$



Questions?

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Words	3237
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Affect	3.92
tone_pos	1.33
tone_neg	2.41
emotion	1.3
emo_pos	0.25
emo_neg	0.86
emo_anx	0
emo_anger	0.12
emo_sad	0.03
swear	0

Cognition	14.27
allnone	0.86
cogproc	13.28
insight	3.68
cause	2.13
discrep	2.07
tentat	2.22
certitude	0.93
differ	3.49
memory	0.12

focuspast	4.32
focuspresent	5.75
focusfuture	3.15

filler