

The Effect of Informational and Interactive Factors on the Prosodic Prominence of Negation

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Multivariate analysis: Panos Pappas (SFU), Tagliamonte (2006)

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Data Considered

- Spoken discourse
 - Telephone conversations (Switchboard, CallHome),
 - presidential debates (Nixon/Kennedy, Bush/Gore),
 - television political discussion programs (McLaughlin Group)
- Declarative statements
 - Disregarded questions and commands.
- *Only Not*-negatives (Tottie 1991)
 - Disregarded *no*-negatives (*no one, nothing, etc.*),
 - Disregarding affixal negation (*unfriendly, etc.*), and constituent negation (*He went to the store, not to the bar*).
- Coded presence or absence of pitch accent on independent *not* or on auxiliary with contracted negation
 - They *did not* come.
 - They *didn't* come.

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Previous Findings

- Cognitive Prominence Principle:
 - Negation will be stressed due to importance in message.
 - In read speech, negation tends to be prominent: (O'Shaughnessy & Allen 1983, Hirschberg 1993).
- Social Agreement Principle (Yaeger-Dror, 1985, 2003):
 - In friendly conversation, speakers strive to minimize disagreement to mitigate threats to the addressee's face; in adversarial situations, this principle is inverted.
 - Switchboard corpus: 16.8% prominent.
 - CallHome corpus (Banuazizi 2003): 19% prominent.
 - Presidential debates: 52% prominent.
 - Television political discussions: McLaughlin group (Hedberg & Sosa 2003): 75% prominent.
- Information Status (Banuazizi 2003)
 - CallHome Corpus: Speakers stress negations that fill an Open Proposition (Prince 1986).

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Goals of Current Study

- Use multivariate analysis (Goldvarb) to compare role of stance, footing and information status on the prosodic prominence of negation.
- Stance:
 - McLaughlin Group (adversarial, informal)
 - First issue in 13 programs, introductions not analyzed, 27,829 words.
 - CallFriend Corpus* (friendly, informal)
 - Debate broadcasts* (adversarial, formal)
 - News broadcasts* (informative, formal)

*Analysis not completed

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Dependent Variable: Pitch Accent

- Pitch accent on negative element (Hedberg, Sosa, Görgülü; Yaeger-Dror *et al*)

• N	Neutral	
• H	High	H*
• R	Rising	H*, L+H*
• ^	Rise-Fall	H*
• F	Falling	H*, !H*
• L	Low	L*
• v	Fall-rise	L*+H
- Recoding for Goldvarb:

– Non-prominent: N, L	0
– Prominent: H, R, ^, F, v	1

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Independent Variable: Footing

- S. Supportive.
 - Mr. Blankley: I agree with you that he's **not** popular on the Hill. (8/17/07, 12, SOH)
- R. Remedial
 - Mr. McLaughlin: We're talking about bribing of civic officials. Mr. Zuckerman: No, it's **not** bribing. (10/12/07, 30, ROR)
- I. Informative
 - Ms. Clift: And they **can't** control all of these factories that are producing toys with poison lead. (10/12/07, 1, INR)
- H. Hedge
 - Mr. McLaughlin: Question: Should Fannie Mae and Freddie Mac be expected to take up the slack? Pat Buchanan. Mr. Buchanan: No, I **don't** think they should right now, John. (8/10/07, 1, HDN)

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Independent Variable: Information Status

- **N. New**
 - Mr. Buchanan: We **haven't** had a nuclear power plant since Three Mile Island. (8/3/07, 4, SNH)
- **P. Presupposed**
 - Ms. Bartiromo: As I mentioned earlier, it's **not** just China. (8/3/07, 20, IPH)
- **D. Direct answer**
 - Mr. McLaughlin: Do you think there was an embedded message in those tears?
Mr. Blankley: No embedded message. It was obvious. The man had a genuine, sincere emotion, as anybody would. But it **doesn't** mean anything about policy. (7/20/07, 18, RDH)
- **O. Open Proposition**
 - Mr. Blankley: So the fact that we have done a lot **doesn't** mean that we are any safer. (7/13/07, 8, IOH)

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Stance: Distribution of Footing %Neg/100 words

	SwB	McL	B/G	K/N
Informative	.296	.478	.382	.400
Remedial	.091	.392	.457	.536
Supportive	.255	.144	.011	.048
Hedge	.172	.129	.019	.007

McLaughlin intermediate between Switchboard and debates with respect to proportion of Remedial and Supportive negative turns.

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Stance: Pitch Prominence on Different Footings

Corpus	Footing	N	% PP
SwB	Informative	146	17.8
	Remedial	45	13.3
CallHome	Informative	282	19.2
	Remedial	11	45.5
B/G	Informative	102	40.2
	Remedial	122	41.8
K/N	Informative	165	54.6
	Remedial	223	61.1
McL	Informative	133	74.4
	Remedial	109	80.7

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Stance & Pitch Prominence: Interpreted

- **Switchboard**: friendly, formal
 - Social Agreement Principle at work.
- **CallHome**: friendly, informal
 - Bald, on Record (Brown & Levinson 1987): Social Agreement Principle suspended.
- **Debates**: adversarial, formal
 - Social Agreement Principle inverted.
- **McLaughlin**: adversarial but friendly, informal
 - Social Agreement Principle inverted + suspended.

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Information Status & Pitch Prominence

	O+D (OP)	P (Old)	N (New)
CallHome			
PP	31	13	19
Total N	43	54	234
Percent PP	72.1	24.1	8.1
McLaughlin			
PP	129	40	70
Total N	178	49	91
Percent PP	72.5	81.6	76.9

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Goldvarb: Footing

		1 [+ PP]	0 [- PP]	Total	%
I	N	99	34	133	41.8
	%	74.4	25.6		
S	N	35	5	40	12.6
	%	87.5	12.5		
R	N	88	21	109	34.3
	%	80.7	19.3		
H	N	17	19	36	11.3
	%	47.2	52.8		
Total	N	239	79	318	
	%	75.2	24.8		

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Goldvarb: Footing Interpreted

- I,S,R,H: Footing significant
 - S: 0.695 I: 0.462
 - R: 0.577 H: 0.216
- I,S,R,-: Footing nonsignificant
- I,S,R,I: Footing significant
 - S: 0.660
 - R: 0.527
 - I: 0.428

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Goldvarb: Information Status

		1 [+ PP]	0 [- PP]	Total	%
O	N	106	36	142	44.7
	%	74.6	25.4		
N	N	70	21	91	28.6
	%	76.9	23.1		
P	N	40	9	49	15.4
	%	81.6	18.4		
D	N	23	13	36	11.3
	%	63.9	36.1		
Total	N	239	79	318	
	%	75.2	24.8		

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Goldvarb: Information Status Interpreted

- O,N,P,D: Information Status non-significant
 - N: 0.572 O: 0.472
 - P: 0.503 D: 0.425
- O,N,P,O: Information Status non-significant

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Conclusions

- McLaughlin conversations are adversarial, yet friendly and informal, hence negations come out even more pitch prominent than in Presidential debates.
- Footing is a significant factor group, information status is not.
- Both in McLaughlin and in Debates, Remedial tokens are more likely to be prominent than Informative.
- In McLaughlin, Supportive tokens are more likely to be prominent than even Remedial.
- While in debates, Supportive tokens are least likely to be prominent.

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Future Work

- Compare pitch accent coding between teams.
- Extend study to news broadcast, CallFriend conversations and debates.
- Continue to pursue validity and reliability in coding for prosody, footing and information status.
- Examine the role of gender.

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