

FOCUS vs. focus
The View from Phonology

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Goals of the study

- To establish the existence of presentational focus inside the scope of **only**, alongside contrastive FOCUS associated with **only** (contra Schwarzschild).
- To establish that the phonetic/phonological properties of FOCUS are distinct from those of focus, supporting a FOCUS vs. focus distinction (contra Schwarzschild and Rooth).
- To provide analyses of the respective properties of FOCUS and focus.

The Current Project

A production experiment that examines the phonological reflexes of contrastive FOCUS and presentational focus.

To compare the two phenomena explicitly, we used double complement sentences, with one type of Focus on each complement. We then “flipped” the Focus value of the two complements. A third condition had only presentational focus.

The sentences are ambiguous as to which complement is associated with a contrastive FOCUS-inducing particle in pre-verbal position, e.g. **only**.

The three information structures

Condition A

Subject **only** Verb [comp1]_{FOCUS} [comp2]_{focus}

Condition B

Subject **only** Verb [comp1]_{focus} [comp2]_{FOCUS}

Condition C

Subject \emptyset Verb [comp1]_{focus} [comp2]_{focus}

The three information structures

A. Mitt only wants [Mormons]_{FOCUS} to [get married]_{focus}.

(Mitt wants only Mormons to get married)

B. Mitt only wants [Mormons]_{focus} to [get married]_{FOCUS}.

(The only thing that Mitt wants Mormons to do is get married)

C. Mitt wants [Mormons]_{focus} to [get married]_{focus}.

(Neutral)

Method of elicitation

18 minimal triplets were elicited from each subject. Each triplet consisted of the same sentence in conditions A, B, and C. The sentences differed only in their information structure and, in the case of condition C, the lack of a focus particle such as **only**. In some cases, the beginning of the sentence differed slightly between conditions, as the context demanded.

The desired information structure was elicited in each case by a supporting context preceding the target sentence and a disambiguating sentence following it.

A. We used a lot of different carpenters when the house was being built. John David was pretty reliable, and that guy Gus did a lot of good work. **But we only hired Manny to work on the annex. We feel a lot of loyalty towards him.** 🗣️ 🗣️

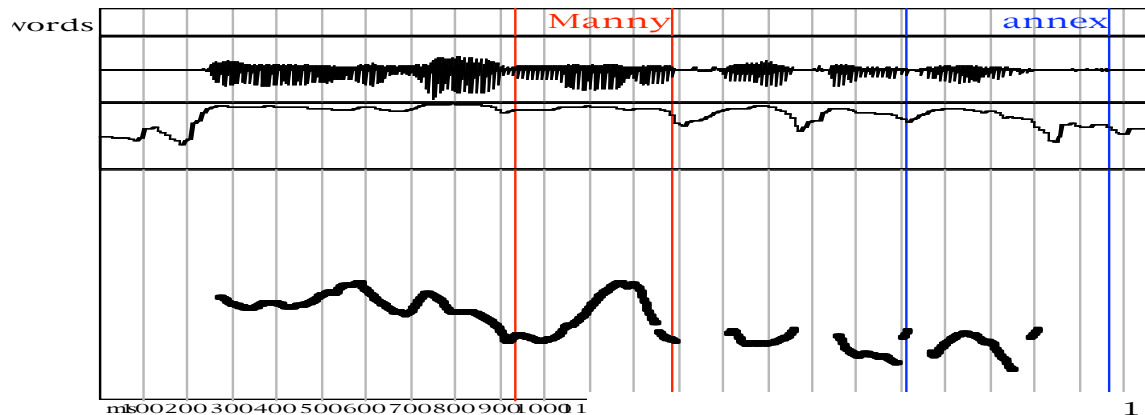
B. The house really needed a ton of work. The front porch was rotting, and the driveway needed to be repaved. **But we only hired Manny to work on the annex. We figured that was all he could handle.**

C. We didn't want to do any substantial repair work this year. There just wasn't enough money to do everything that needed to get done. **Even so, we hired Manny to work on the annex. And that worked out well.**

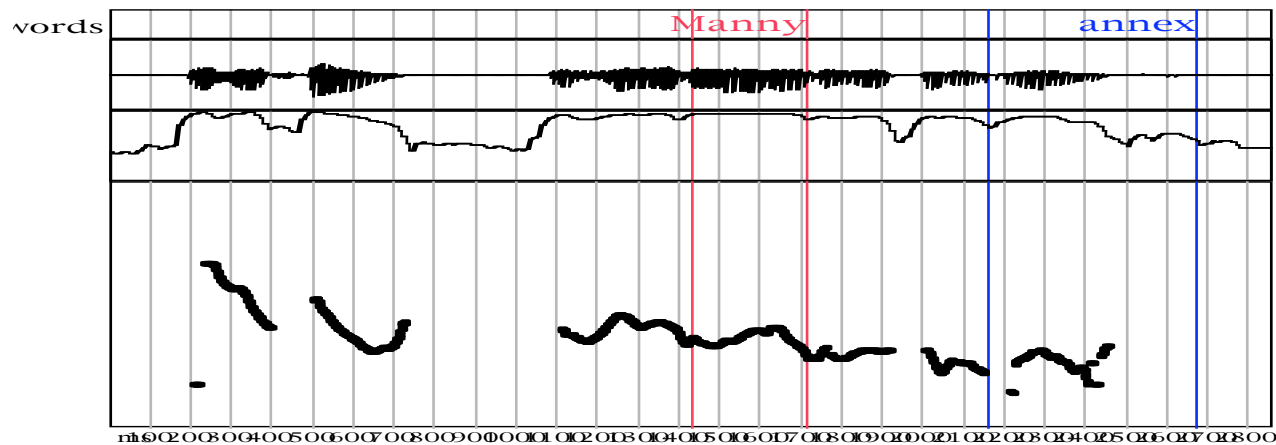
RESULTS

I've included a few representative pitchtracks in Pitchworks format. They're labeled by sentence number, condition, and subject. The example from subject RGL shows a fairly good three-way contrast. The example from subject MP shows an interesting segmental phenomenon: in the B condition, where the second complement (**Idaho**) is FOCUSed, it is pronounced with a glottal stop at the beginning. In the A and C conditions, it is not. The example from subject MW shows durational effects at the onset of complements: the initial /m/ sounds vary in duration according to their Focus status.

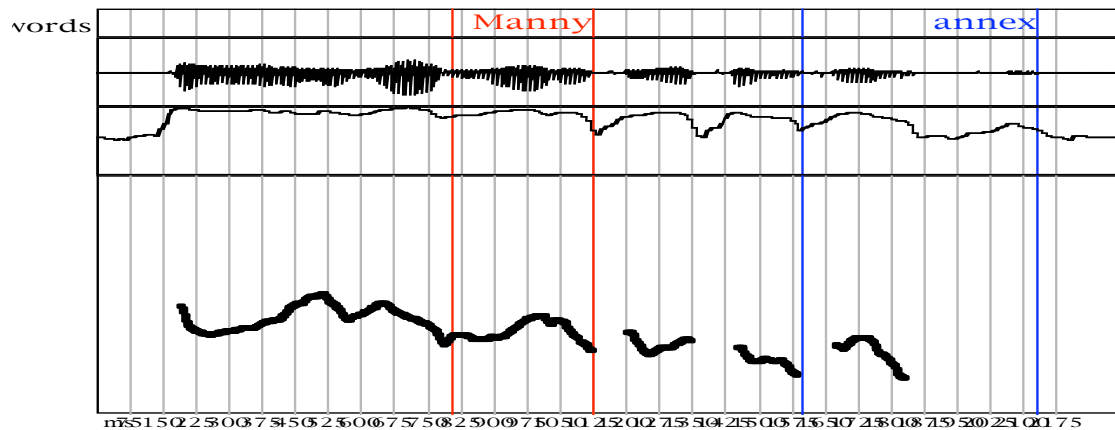
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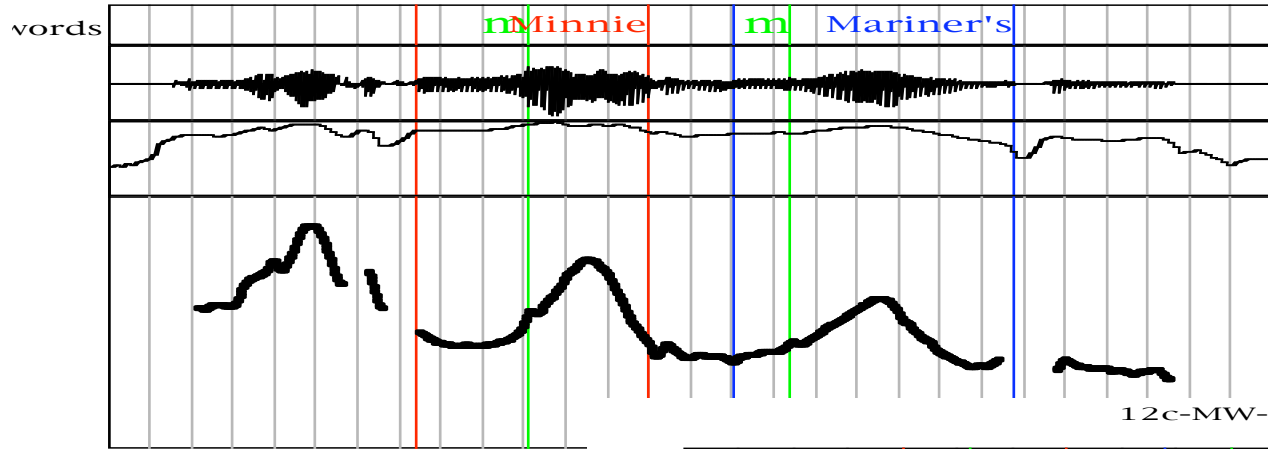
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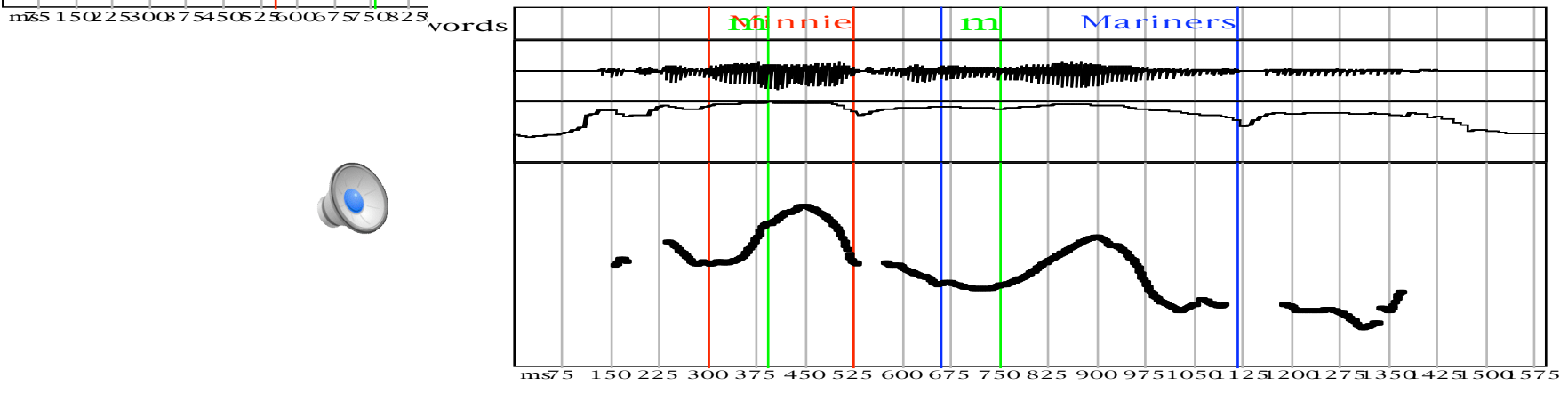
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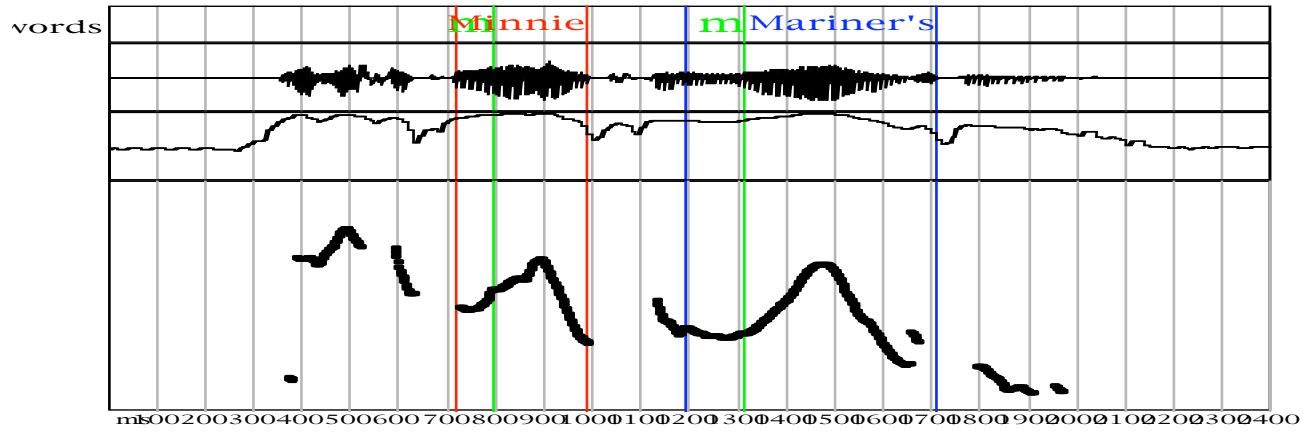
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12c-MW-A21.wav

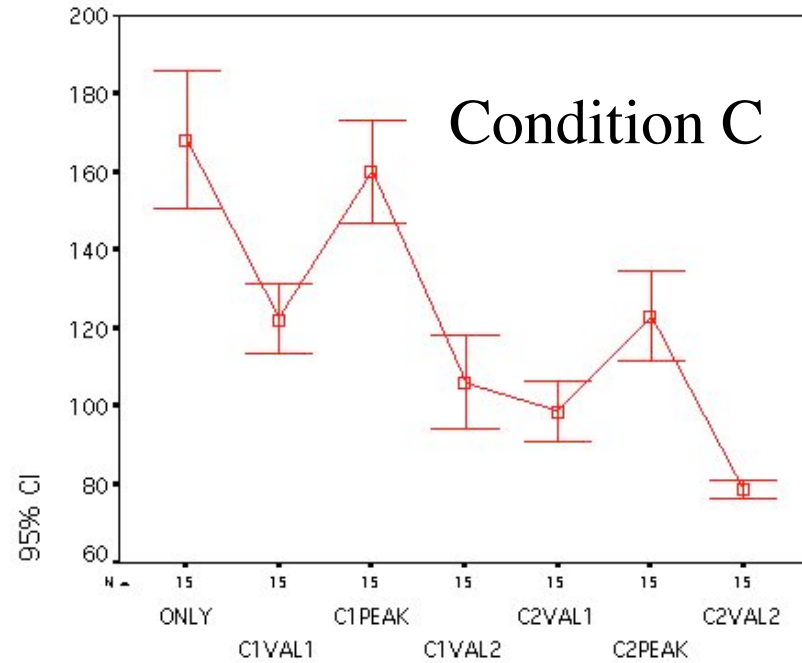
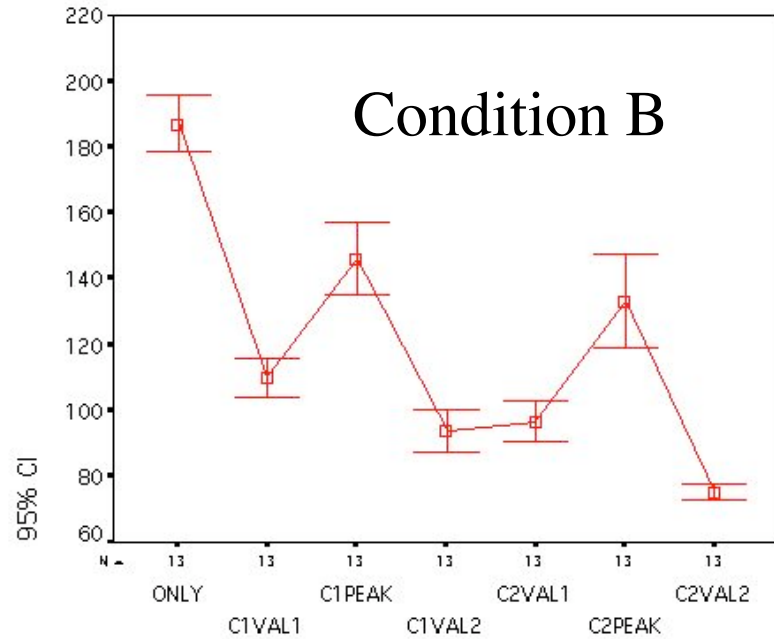
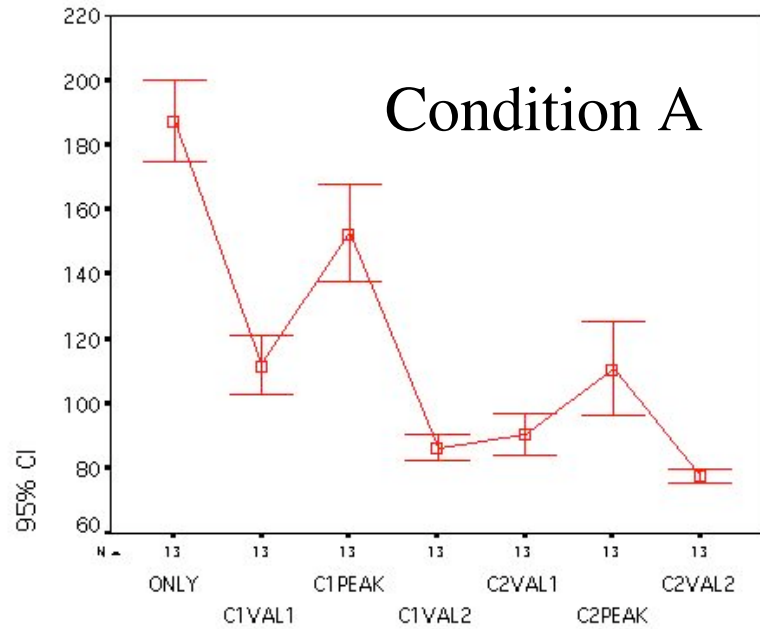


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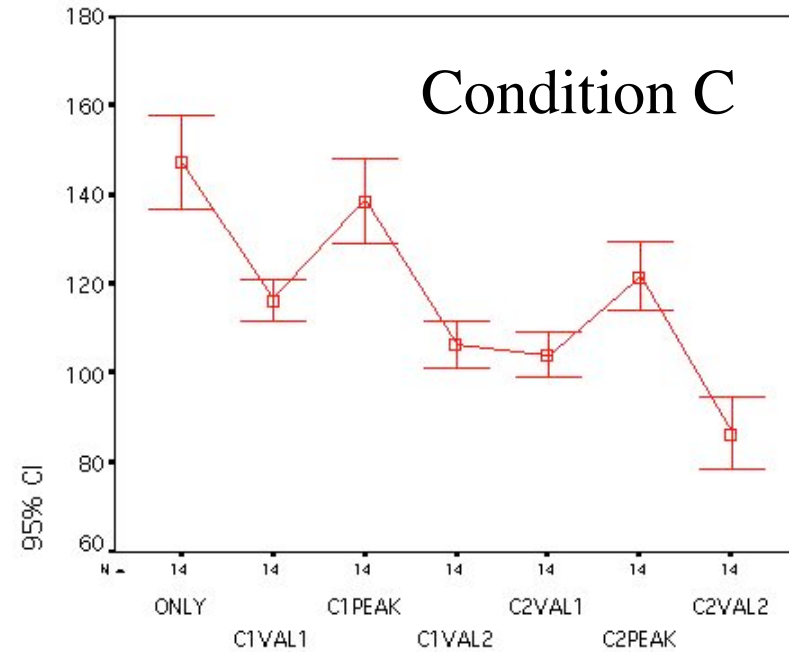
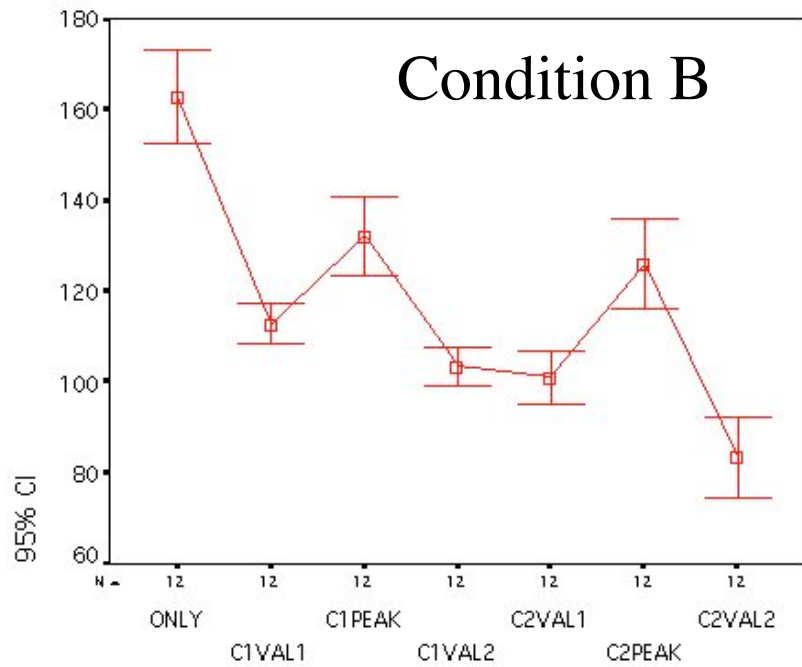
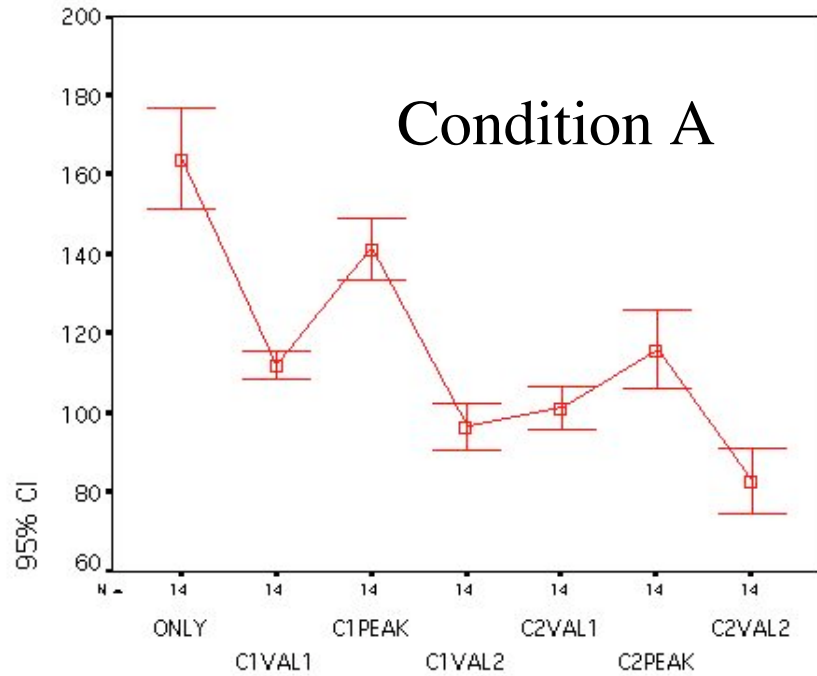
SUBJECT MP

COMPOSITE F0 CONTOURS



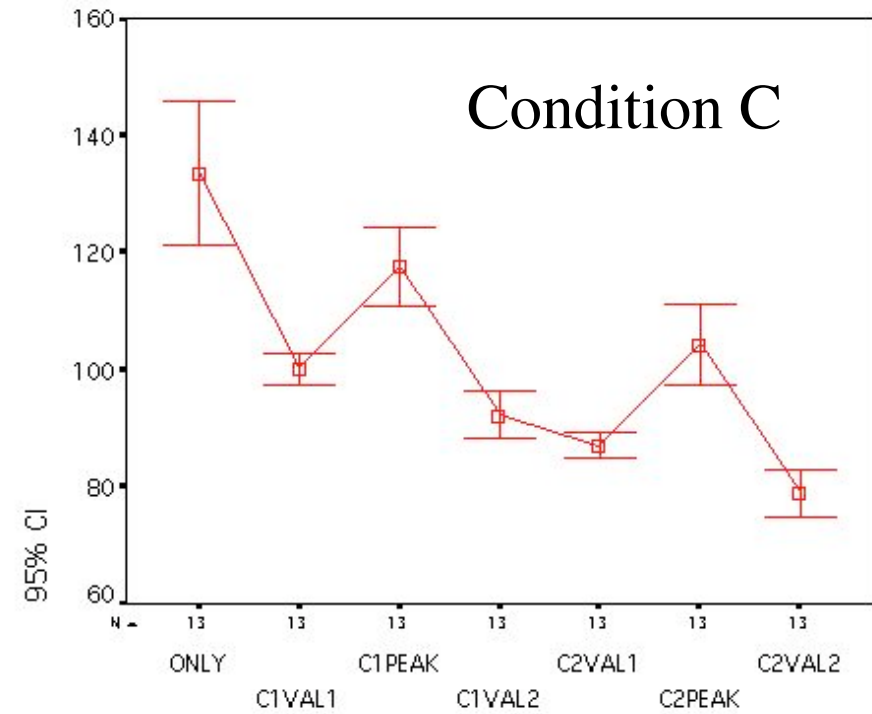
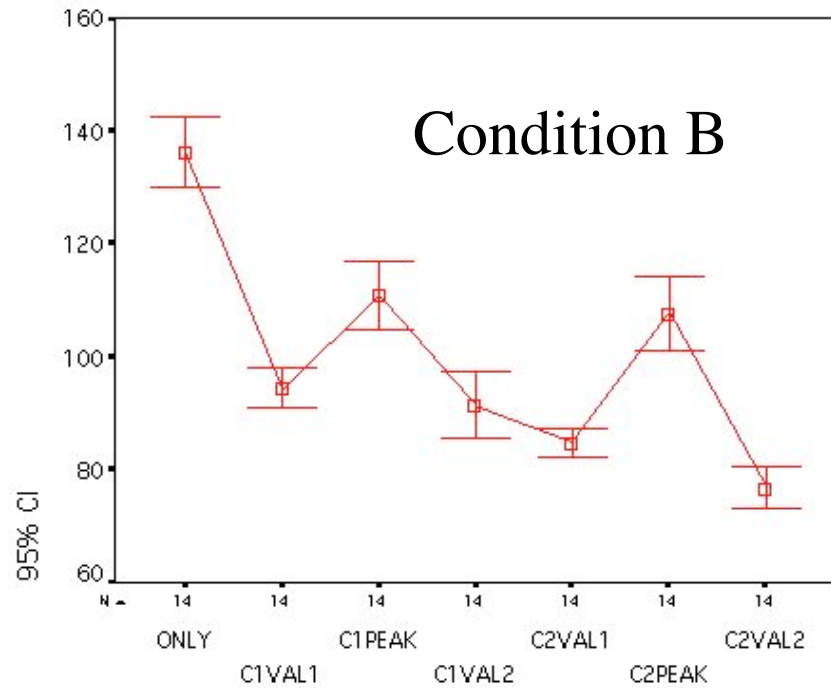
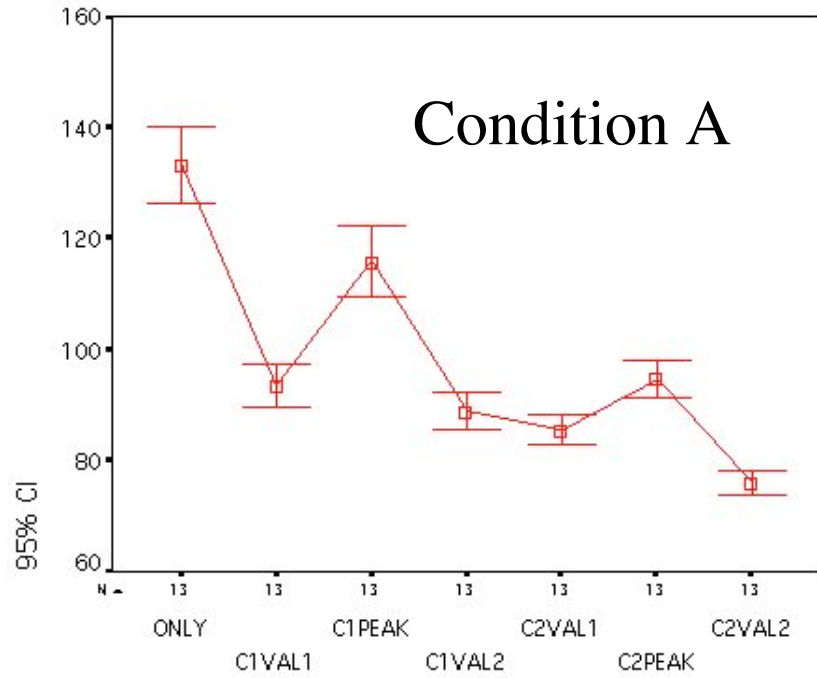
SUBJECT MW

COMPOSITE F0 CONTOURS



SUBJECT RGL

COMPOSITE F0 CONTOURS



Preliminary observations

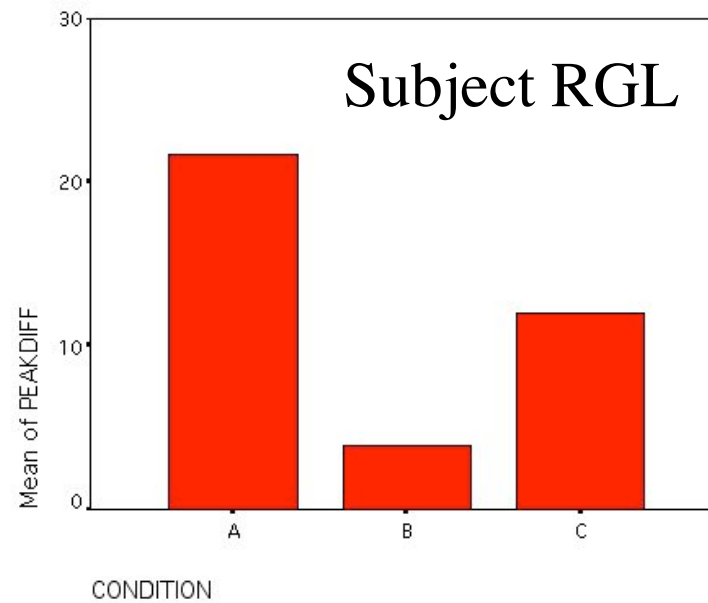
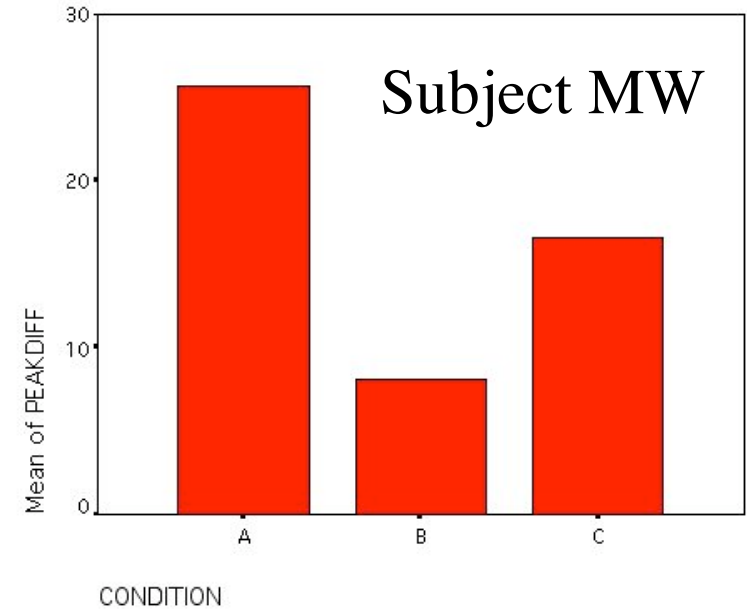
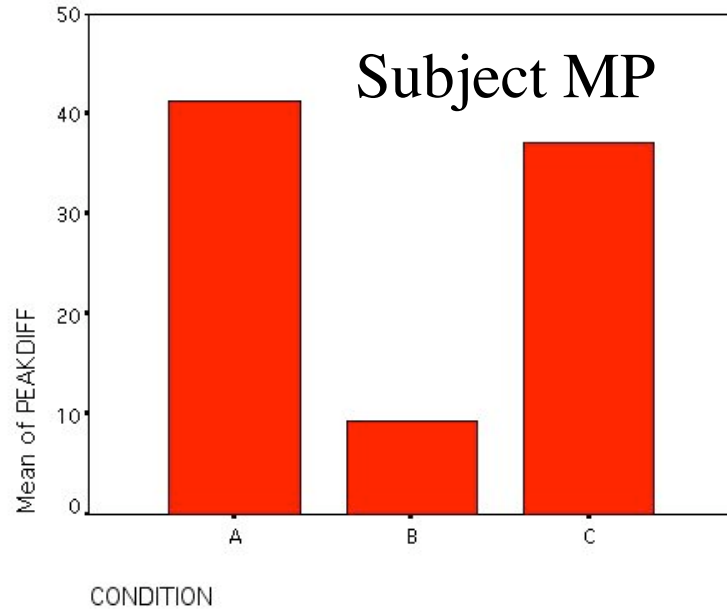
- Conditions A and B are clearly distinct; condition C seems to be somewhere in between them, but shows more variation both within and between subjects.
- Condition A shows downstep on complement 2; condition B shows none; condition C is not entirely clear.

Patterns of significance

Raw data results	MP	MW	RGL
peak difference	a-b, b-c	a-b	a-b, (a-c = .099)
fall difference	a-b, a-c	a-b	a-b, (b-c = .077)
rise difference	a-b, b-c	a-b	a-b, a-c
C1 rise			
C1 fall		(a-b = .064) (a-c = .056)	(a-b = .085)
C2 rise	a-b, (b-c = .073)	(overall = .091 a-b = .090)	a-b, (a-c = .077)
C2 fall	a-b		a-b

Shaded regions showed significant differences on ANOVA. Significant post-hoc analyses are noted; near-significant post-hoc analyses are notated in parentheses, with p-values.

Differences in downtrend between complements, by condition



Conclusions

- It *is* possible to find both presentational focus and contrastive FOCUS within the scope of **only**.
- They are differentiated by (at least) relative pitch prominence.

More questions I

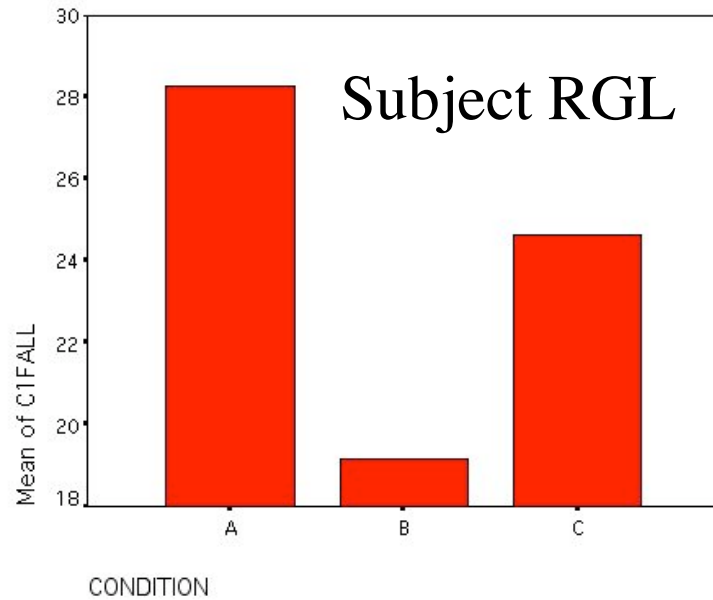
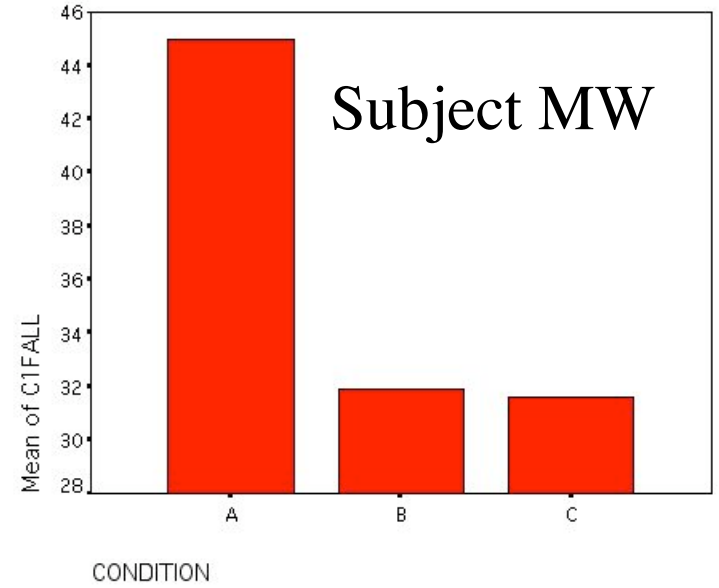
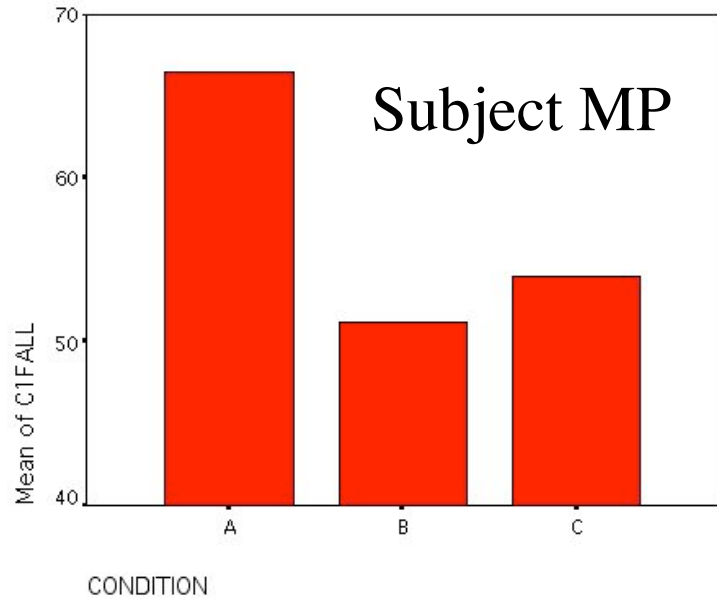
Can contrastive FOCUS be differentiated from presentational focus by the presence of a following L tone?

We don't have clear evidence either way. We would expect a H*L- pattern to show a large fall after the H* tone. One of the three subjects showed significant interaction by condition for the **fall in F0 after complement 1**. Post-hoc analysis showed that two pair-wise comparisons were almost, but not quite, significant: the fall after C1 was larger in the A cases than it was in the B or C cases ($p = .064$ and $p = .056$, respectively). The other two subjects showed a difference between conditions A and B, but p-values were in the .10-.20 range. Even if the fall after a FOCUS-marked constituent is larger, the fall after a focus-marked constituent is still quite substantial.

More questions I (cont)

A L tone following a contrastive FOCUS would normally be characterized as a MaP-right boundary tone. We would expect a MaP break after a FOCUSed constituent. But we expect subjects to insert a MaP break after some of the focused constituents as well, because they coincide with an XP edge. This would explain the lack of significant differences.

Fall in F0 following complement 1, by condition



More questions II

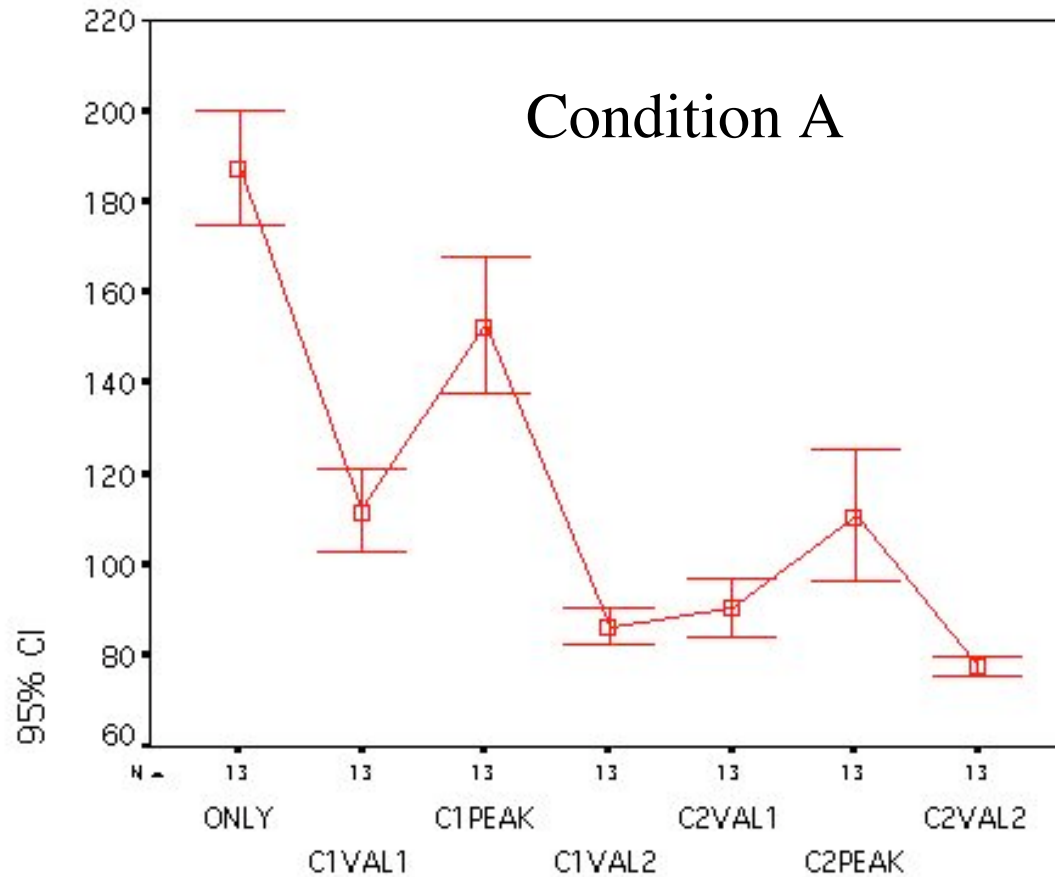
What about a preceding L tone?

Again, the evidence isn't clear. A L+H* pattern should be reflected in a steep rise up to the pitch accent. We did find a larger rise up to the second complement when it was FOCUS-marked, for all three subjects. But this is unsurprising, because we've already determined that the H* goal was significantly higher in these cases. The significant differences in rise up to C2 probably reflect the difference in peak height across conditions, rather than the presence or absence of a L tone.

More questions II (cont)

Interestingly, none of the subjects showed a significant difference across conditions in the magnitude of the rise in F0 up to the *first* complement. The hypothesis that FOCUS is distinguished from focus by a preceding L tone, then, is not supported by our results; the preceding L tone was either present in both cases or absent in both cases.

More questions III



Returning to the schematic pitch diagram on the left, we see that the peak of FOCUS-marked C1 seems to be downstepped with respect to the peak of **only**.

How can this be, if FOCUS-marking blocks the possibility of downstep?

More questions III (cont)

We don't really know. It may have to do with the design of the experiment.

In every single sentence we tested, C1 bears the second pitch accent in the sentence. **Only**, of course, bears the first. It may be that **only** is getting some sort of “boost” from being the first pitch accent in the sentence. This phrase-initiality effect could conceivably push the pitch of **only** up past that of C1. This hypothesis will need to be tested in a future experiment. Any ideas?