The role of discourse context, prosody and gesture in the perception of verbal irony

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INTRODUCTION

DISCOURSE CONTEXT IN VERBAL IRONY
Most accounts of verbal irony agree in considering it a purely pragmatic phenomenon in which the **pragmatic contextual characteristics** (e.g. **specific situation**, **shared beliefs**, and **common ground** between speaker and listener) are a key factor in its interpretation (Kreuz & Glucksberg, 1989; Gibbs, 1994; Utsumi, 2000; inter alia).

- Ivanko & Pexman (2003) showed experimentally that an ironic utterance will be interpreted differently depending on the **degree of incongruity** between the **discourse context** and the statement.
Ex: Laura says "fantàstic" **when something disappointing happens**.

RELEVANCE THEORY. Listeners need to **detect the incongruence** between the coded meaning and **the actual intention of the speaker** (Wilson & Sperber 2012).

PROSODIC AND VISUAL CUES IN THE PERCEPTION OF VERBAL IRONY

Listeners use **prosodic information** when recognizing verbal irony.

- Bryant et al. (2005) and Capelli et al. (1990)'s studies demonstrate that, **in the absence of contextual cues, the combination of **multiple acoustic cues** can be sufficient for the detection of ironic intent.

- Woodland et al. (2011), examining together **contextual** and **auditory** cues to irony **perception**, found that both cues influence the perception of an ironic utterance.

Few research has been done on visual cues to verbal irony

QUESTIONS ················> HYPOTHESIS

+What is the relative contribution of discourse context together with prosodic and visual cues to the perception of verbal irony? (**Experiment 1**)

+How important visual cues are compared to prosodic cues for the perception of verbal irony? (**Experiment 2**)

+Hearers will attend to prosodic and visual cues together with discourse context to achieve the interpretation of an ironic utterance.

+The relative contribution to the perception of verbal irony will be higher for visual cues than prosodic cues in neutral (non-biased) discourse contexts .

AUDIOVISUAL MATERIALS FOR EXPERIMENTS 1 and 2

- **Production Task.** By means of a Discourse Completion Task, eight speakers of Central Catalan were presented each one with 8 discourse contexts (4 ironic and 4 non-ironic) that lead, crucially, to the same target sentence.
- Discourse contexts were carefully designed **to minimize sociolinguistic variables** that could affect the production of the utterance.
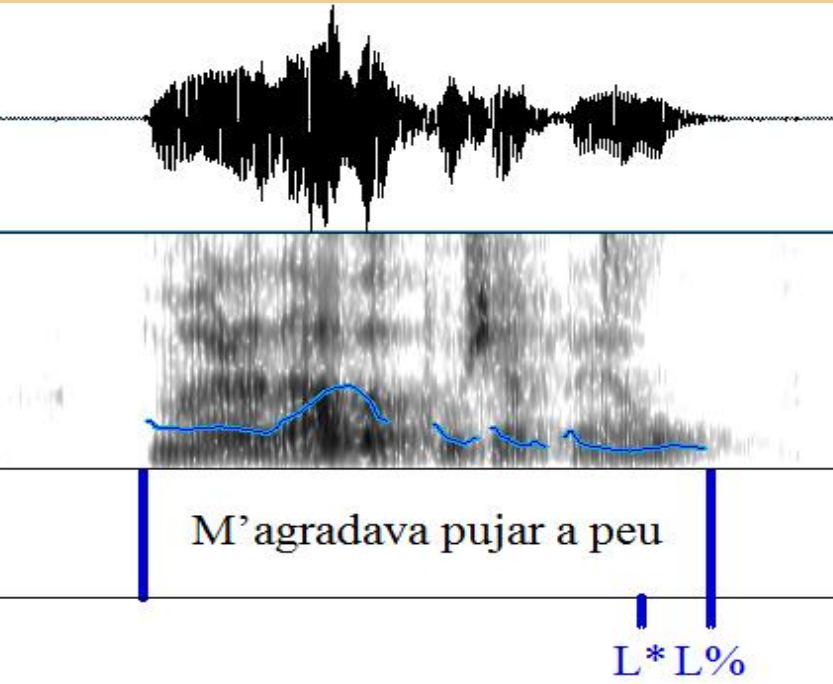

Non - Ironic

Prosodic pattern Non-Ironic A
L+H* (High Peak) L%

Fantàstic!
L+H*   L%
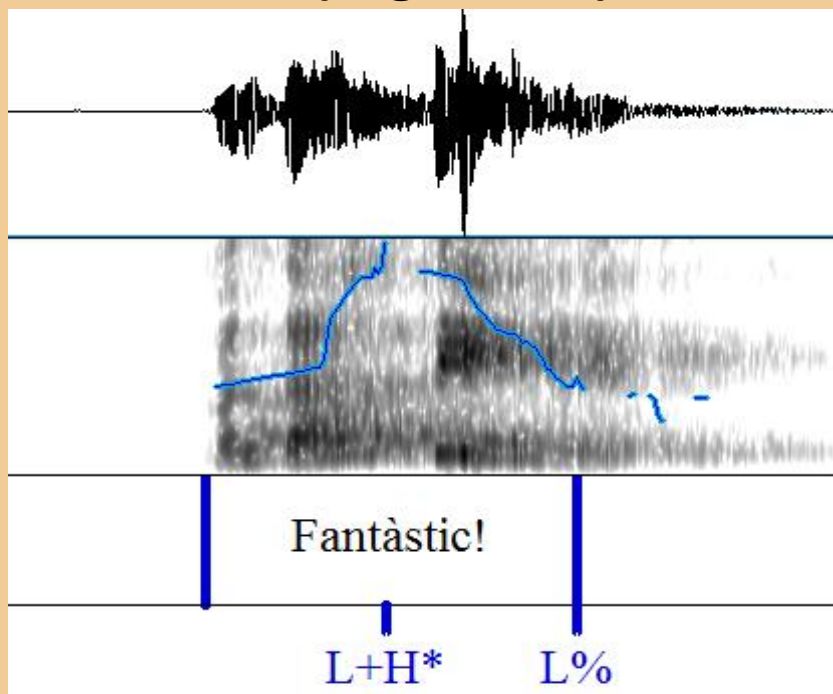
Prosodic pattern Non-Ironic B
L* L%

M'agradava pujar a peu
L*L%

Gestures – Non Ironic performances

Head: NOD – Mouth: SMILE

Ironic

Prosodic pattern Ironic A
L+H* (Low Peak) L%

Fantàstic...
L+H*   L%
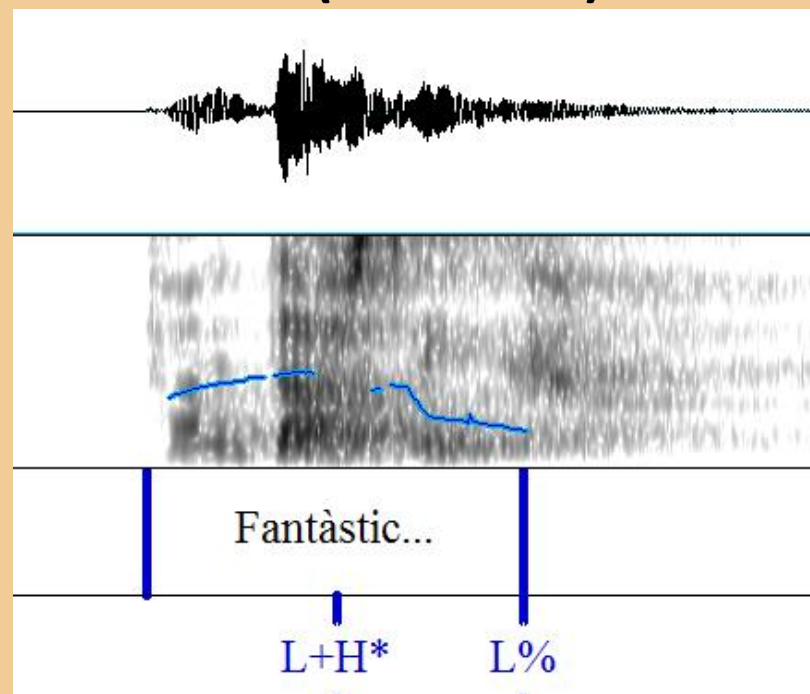
Prosodic pattern Ironic B
L+H* H%

M'agradava pujar a peu!
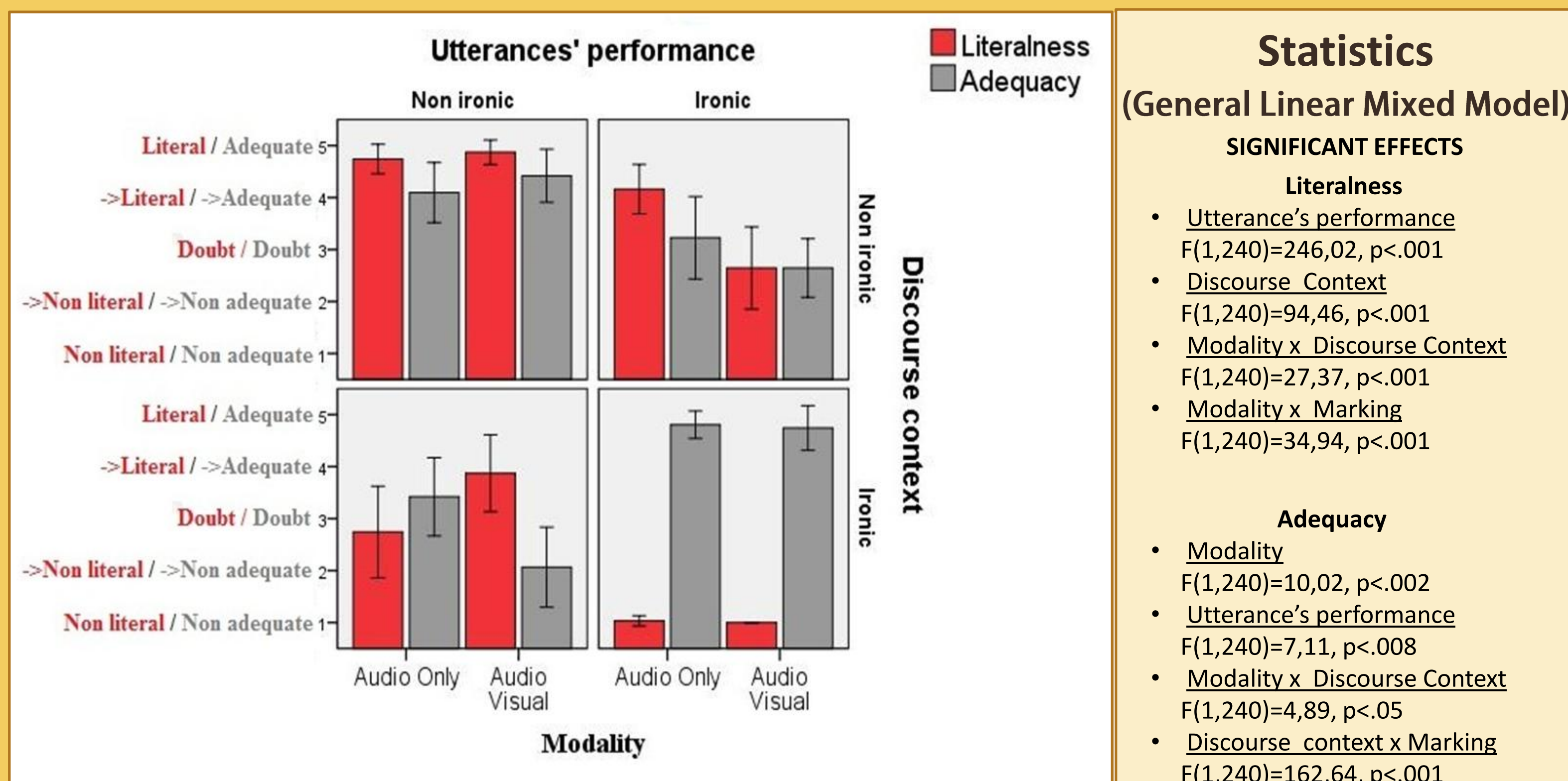L+H*   H%
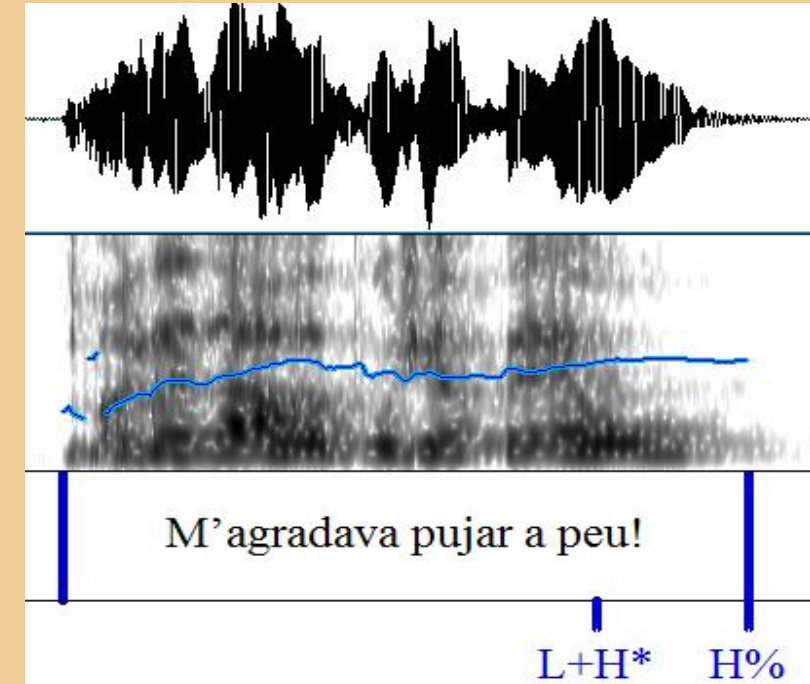
Gestures – Ironic perfomances

Head: TILT – Mouth: STRETCH

EXPERIMENT 1

Methods

- A group of **30 Catalan subjects** participated in two **online questionnaires** in which they were presented with a set of 8 ironic and non-ironic discourse contexts combined with a set of ironic vs. non-ironic target sentences.
- Target sentences were obtained by means of a previous **Production Task**, and were presented in Audio Only and AudioVisual conditions.
- They had to assess

(i) the degree of literalness of the sentence in that context (from 1 'Non-Literal' to 5 'Literal')

(ii) the degree of adequacy of the pronunciation of the perceived utterance in relation with the discourse context (from 1 'Adequate' to 5 'Non-Adequate')

Results

Statistics (General Linear Mixed Model)
SIGNIFICANT EFFECTS
Literalness
- Utterance's performance F(1,240)=246,02, p<.001
- Discourse Context F(1,240)=94,46, p<.001
- Modality x Discourse Context F(1,240)=27,37, p<.001
- Modality x Marking F(1,240)=34,94, p<.001

Adequacy
- Modality F(1,240)=10,02, p<.002
- Utterance's performance F(1,240)=7,11, p<.008
- Modality x Discourse Context F(1,240)=4,89, p<.05
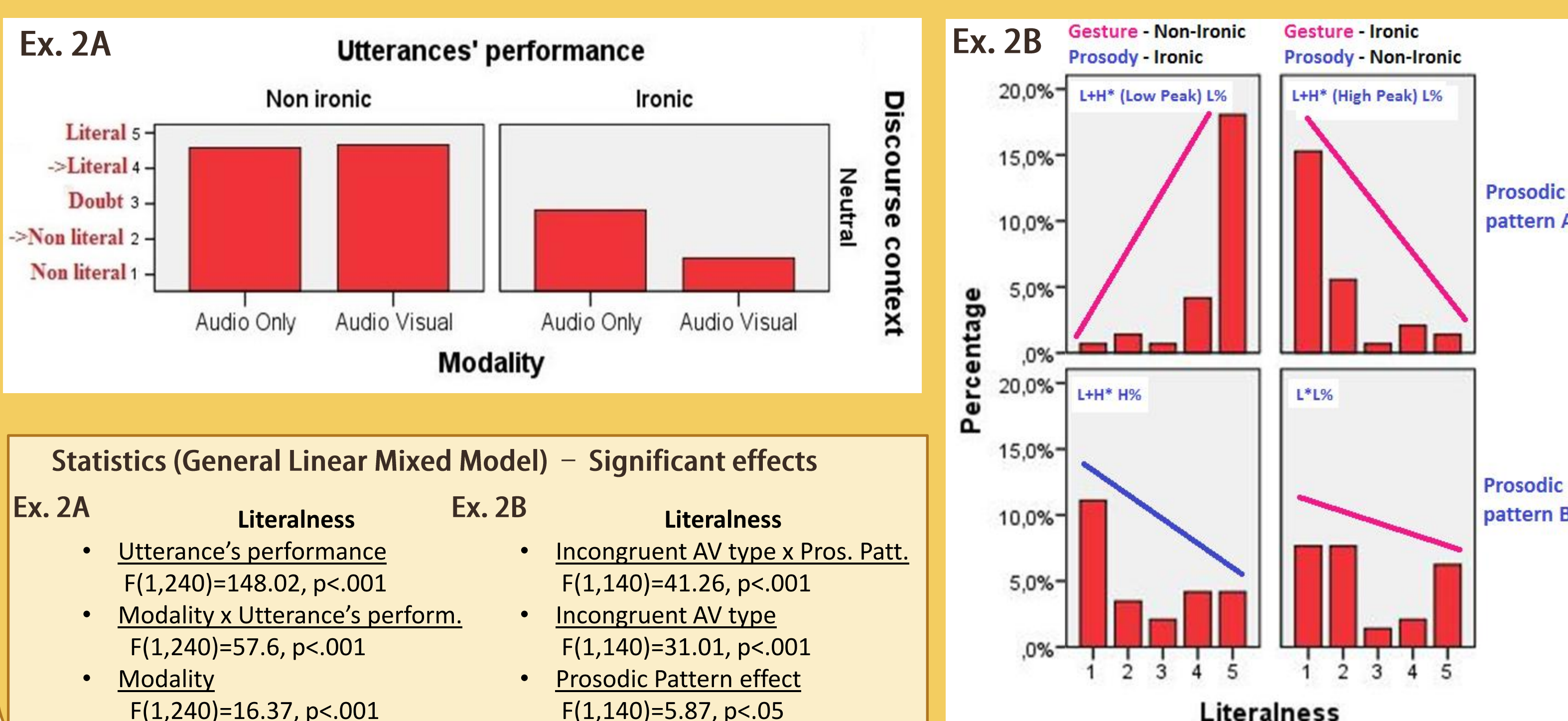- Discourse context x Marking F(1,240)=162,64, p<.001

EXPERIMENT 2

Methods

- A group of **45 Catalan subjects** participated in 3 **online questionnaires (Q1, Q2 and Q3)** in which they were presented with a set of **neutral discourse contexts** combined with…

(i) Ex2A. **Ironic vs. Non-ironic audiovisual performances in Audio Only and AudioVisual** (Q1 i Q2)

(ii) Ex2B. **Incongruent Audiovisual performances** (i.e., in which ironic auditory performances were matched with non-ironic visual performances and vice versa) (Q3).

- In all questionnaires participants had to assess the **degree of literalness** of the sentence.

Results

Statistics (General Linear Mixed Model) – Significant effects

Ex. 2A
Literalness
- Utterance's performance F(1,240)=148.02, p<.001
- Modality x Utterance's perform. F(1,240)=57.6, p<.001
- Modality F(1,240)=16.37, p<.001

Ex. 2B
Literalness
- Incongruent AV type x Pros. Patt. F(1,140)=41.26, p<.001
- Incongruent AV type F(1,140)=31.01, p<.001
- Prosodic Pattern effect F(1,140)=5.87, p<.05

CONCLUSIONS

+ Discourse contexts **produce expectations** and **these expectations are also influenced** by the prosodic characteristics of the speaker production (Woodland et al. 2009) and, importantly, by visual cues.

+ In neutral discourse contexts, prosodic cues together with visual cues crucially contribute to the perception of verbal irony.

+ The contribution of visual cues to the perception of verbal irony seems to be as important as prosodic cues is in any discourse context.

+ More research has to be done to investigate the role that specific intonation patterns play in the detection of verbal irony.

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