Studies about Framing Effect: Compatibility in Language.

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## Abstract

Framing Effect started to be explained like preference re versal in hearers, nowadays a new approach is trying to explain it like an effect in both speakers, and hearers, and their respective coordination. To assess this coordination, both groups were presented with the same situations, but with different modifications, and these situations were presented in positive and negative form, to each participant. We found that speakers and hearers present preference reversal, but the direction in speakers is clear while in hearers not.

## Introduction

Framing effect occurs when "a decision-maker respond in different ways to different, but objectively equivalent, descriptions of the same problem" (Keren, 2011). This effect was discovered due to the Asian Disease Problem, where it was found that describing results of two programs in terms of saved lives or lost lives caused preference reversal. The first explanation of this effect was from a heare based approach, however is now explained from a pragmatic approach, where the main idea is that this effect occurs in both, speakers and hearers
Hilton (2011) proposed that speakers choose a particular description of options taking into account their intentions and inferences about the world, and hearers are able to infer such intentions through linguistics signals and make a decision based on this, the NLQ's (Natural Linguistic Quantifiers), which have been proposed as linguistic signals to express quantities. Is this compatibility between speaker and hearer what produces framing effect. It has been found that speakers choose positive words, to convince a person to take action, and negative words to convince him to not take that action. This could be talking to us about coordination and compatibility in communication and could be a way to explain this effect.

## Method

## - 20 participant

- 2 groups: Hearers and Speakers
- 9 situations, each in positive and negative form.
- 5 repetitions by each version.

Results
The main idea is that the probability to choose a word or The main idea is that the probability to choose a word or
make a decision, increases or decreases depending on context. Some researchers like Gatt, van Gompel, van Deemter, Krahmer (2013) have tried to model language processes through Bayesian Modeling, so it seems that the study of framing effects can be benefited from the application of Bayesian Cognitive Modeling

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## Results

- We calculated the percentage of choosing a positive NLQ or make a decision in each situation.



We applied a Bayesian Model in both, group and individual, to estimate $\theta$


Individual Beta Posterior Density Function. Speakers


Latent-Mixture Model


## Discussion

The present study showed evidence in favor of framing effect. On the one had, the direction of preference reversal on speakers is clear, they choose positive NLQ's to refer the best option lugh hence alhough Furs preserch is otear. Fur about hecon could have affected this study.

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