Constraints on evoked knowledge in nominal tautologies: evidence from corpus and experimental data

Elena Vilinbakhova

Victoria Escandell-Vidal

Natalia Zevakhina

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Outline

Defining the problem

(1)   A: -John has missed his plane!

  B: -No wonder! John is John.

(2)   A: In February 2019 Meghan Markle was in a XXL size coat!

  B: #No wonder! Meghan Markle is Meghan Markle.

Research Questions

Q1: Can tautologies be felicitous even when there is no previously shared knowledge?

Q2: Are there kinds of shared knowledge that cannot legitimate the use of a tautology?

Tautologies in pragmatic studies I

Grice's example of Quantity implicature

- Utterances of patent tautologies like *Women are women* are extreme examples of a flouting of the first maxim of Quantity.
- At the level of what is said they are totally noninformative.
- They are informative at the level of what is implicated.
- The hearer's identification of their informative content is dependent on his ability to explain the speaker's selection of this *particular* patent tautology.

(Grice 1975: 52)

Tautologies in pragmatic studies II

Different types of tautologies

(3)   a. I'll be there if I'll be there. *propositional, conditional*

   b. Either I'll like him or I won't. *propositional, disjunctive*

   c. Hubert is Hubert. *nominal, equative*

(Snider 2015)

Common knowledge in the interpretation of tautologies I

…the speaker intends to convey the belief that the participants share a view about some aspect of the noun mentioned in the tautology and wishes to bring this belief to the listener's attention.

(Gibbs and McCarrell 1990: 128)

The interpretation of tautologies involves an evocation of shared knowledge - "a set of qualities and attributes normally assumed about the objects".

(Miki 1996: 635)

Shared knowledge makes it possible for the addressee to retrieve the intended I- and Q-implicatures.

(Meibauer 2008)

Common knowledge in the interpretation of tautologies III

(4) Bankers are bankers.

The second occurrence of the noun is restricted in its application to individuals exhibiting greed, lack of moral fibre, or what you have.

(Geurts 2010: 183)

(5) a. War is war . . . #in fact, violence is avoidable in war.
    b. Bankers are bankers . . . #in fact, many bankers are lovely.
    c. Boys will be boys . . . #in fact, they often behave unpredictably.

(Rett 2015: 82)

Summarizing previous analyses I

- The existence of shared or stereotypical knowledge is taken for granted.

- It is part of the common ground and can be activated when needed.

- The tautology is a means to bringing it to the foreground.

Summarizing previous analyses II

- Previous analyses provide a plausible account for the way in which tautologies are interpreted when the interlocutors have common knowledge about an entity

- Previous analyses suggest no explanation **why** (i) the interpretation without shared knowledge is possible; (ii) there are kinds of shared knowledge that cannot legitimate the use of a tautology

1 Introduction

2 Literature overview

3 **Corpus study**

4 Experiment

5 Conclusions

Hypothesis & Predictions

Hypothesis

- Shared knowledge is not a necessary condition for the interpretation of tautologies.

Predictions

- The exact property can be irrelevant for the conveyed message.

- Lack of previous knowledge can be compensated by providing additional explicit content in discourse.

Design

- 215 fragments with **tautologies with proper names**

- In Corpus of Contemporary American English (COCA): initial searches – strings like **a*_n BE a*_n**

- In Google search engine: search terms – tautologies with the names of famous people: celebrities, politicians, sportsmen, and intellectuals

Coding system

Cases in which the evoked knowledge is not needed for the successful interpretation of tautologies:

P1.   Occurrence of additional interpretive cues

P2.   Relevance of specific properties

P3.   Representation of specific properties

Results

Inter-Annotator Agreement

- Occurrence of additional interpretive cues – a *k* score of .84, p < .001.

- Relevance of specific properties – a *k* score of .92, p < .001

- Representation of specific properties – a *k* score of .88, p < .001.

A *k* value of 0.81-0.99 – almost perfect agreement (Landis and Koch 1977)

Results

Table 1: Frequencies and percentages of tautologies with and without interpretive cues

Interpretive cues	Frequency	Percentage
No	18	8.372
Yes	197	91.628
Missing	0	0.000
Total	215	100.000

Results

Occurrence of additional interpretive cues

(6) Not much to say about this one. Pavlasek is a talented, 22-year-old Czech player ranked 136 in the world. **Novak Djokovic is Novak Djokovic.**

(7) **Elvis is Elvis**. <u>He's never going to be a rah-rah guy that pats you on the back and sits and talks to you in the locker room</u>. That's who he is**.**

Results

Table 2: Frequencies and percentages of tautologies with interpretive cues indicating relevance of specific properties

Relevance of specific properties	Frequency	Percentage	
N/A	18	8.372	
No	54	25.116	
Yes	143	66.512	
Missing	0	0.000	
Total	215	100.000	

Results

Irrelevance of specific properties

(8) **Vettel is Vettel** and **Michael was Michael**, yes, but he does remind me of MS.

(9) DEPAULO: I heard that, as someone put it, the white boys in the campaign were not thrilled. But, you know, **Teresa is Teresa**, and she's not going to change.

Results

Table 3: Frequencies and percentages of tautologies conveying specific properties, which are stated explicitly or can be inferred from the context

Representation of specific properties	Frequency	Percentage	
CTXT	56	26.047	
EXPL	87	40.465	
N/A	72	33.488	
Missing	0	0.000	
Total	215	100.000	

Results

Explicit and implicit description

(10) This speech is brilliant, despite its painful message, because in it, **Ronald Reagan is Ronald Reagan**. <u>He is warm, personal, eloquent, uplifting and optimistic even in tragedy and talks in big, inspiring themes</u>.

(11) **Zidane is Zidane**. I would have told the referee it was a red card. <u>But how can you criticize Zidane</u>?

Discussion

- Tautologies with proper names do not always require precise, preexisting shared assumptions to be felicitous.

- The exact property can either be irrelevant for the conveyed message, or is provided by the context.

- It is not previous knowledge that is required, but the possibility to identify an *ad hoc* essential property that can fit the context.

Hypothesis & Predictions

Hypothesis

- Shared knowledge is not a sufficient condition for the interpretation of tautologies.

Predictions

- Tautologies will be interpreted by evoked permanent, classificatory properties only.
- Contingent states will be systematically rejected, even if they are shared knowledge and supported by the context.
- Rejecting the transitory state interpretation of a tautology takes longer than selecting the permanent property interpretation.

Design

- Tautologies with proper names (John is John)
- Sentences (2 levels: permanent properties vs. transitory states)
- 2 conditions x 26 contexts = **52 critical items**
- Control items (2 levels: relevant property (YES-control) vs. irrelevant property (NO-control))
- 2 conditions x 26 contexts = **52 control items**
- **4 practice items**

Critical Items

(12)   ANN: Jill bought a Louis Vuitton bag!

BILL: No wonder! **Jill is Jill.**

- ❑ a. Conveyed message: She is a spendthrift. (permanent property)
- ❑ b. Conveyed message: She won the lottery yesterday. (contingent/transitory state)

Can Bill's reply convey the indicated message?

(13)   ANN: Jack robbed a bank!

BILL: No wonder! **Jack is Jack**.

- ❑ a. Conveyed message: He is a shady character. (permanent property)
- ❑ b. Conveyed message: He has gone crazy after the accident. (contingent/transitory state)

Can Bill's reply convey the indicated message?

Control Items

(14)   ANN: Alice married a millionaire!

BILL: No wonder! **Alice is a real Cindy Crawford**!

❑   a. Conveyed message: Alice is beautiful like a model. (YES-control).

❑   b. Conveyed message: Alice is very smart. (NO-control)

Can Bill's reply convey the indicated message?

(15)   ANN: Benjamin can lift eighty kilos at a time.

BILL: No wonder! **Benjamin is a real Schwarzenegger**.

❑   a. Conveyed message: Benjamin is a bodybuilder. (YES-control)

❑   b. Conveyed message: Benjamin was born in Austria. (NO-control)

Can Bill's reply convey the indicated message?

Task & Procedure

- Ibex Farm, Amazon Mechanical Turk
- 68 participants

(33 females, mean age – 41.6 y.o., age range – 26 – 67 y.o.)
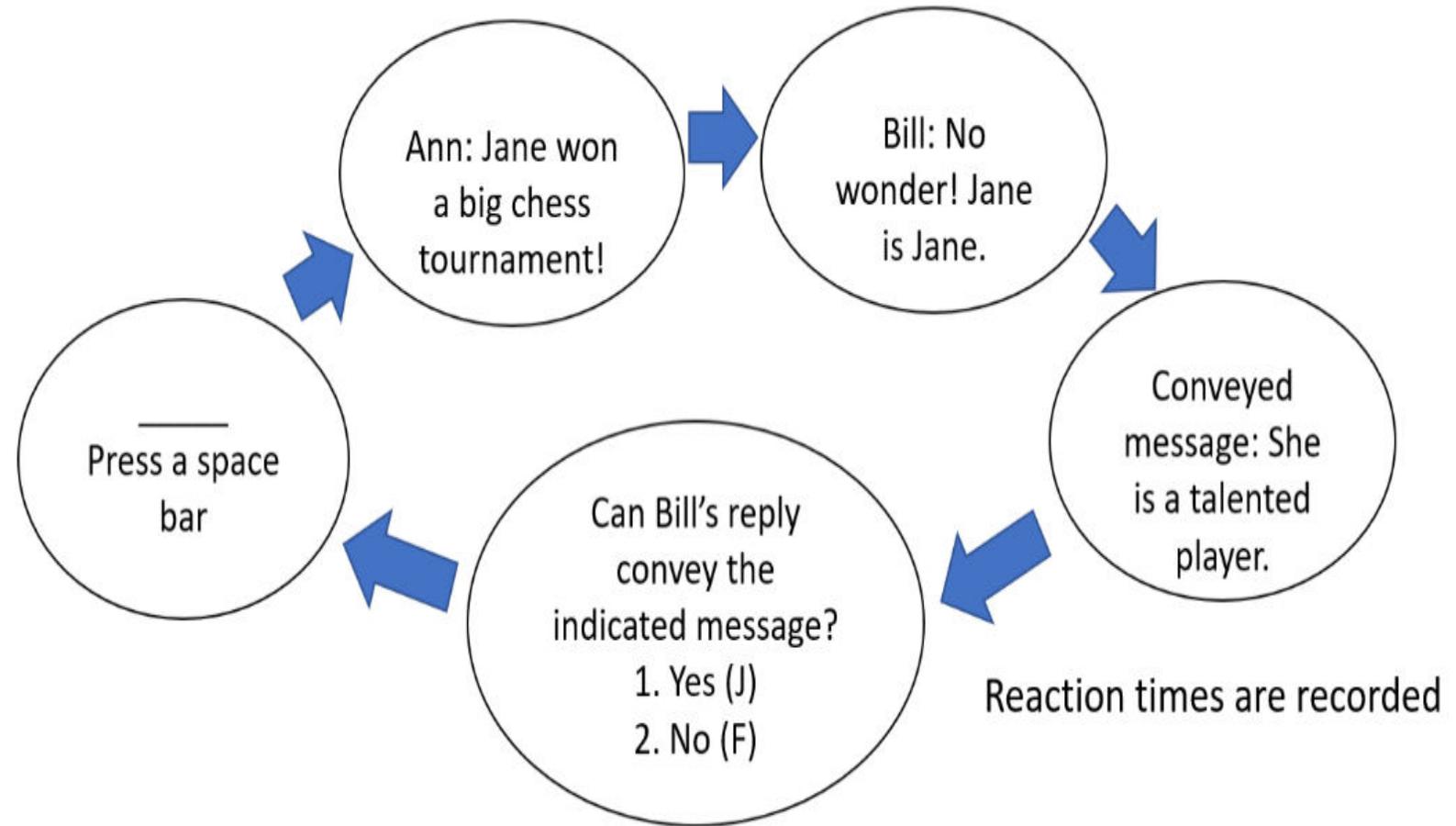
Results I

- True control items received significantly more *yes*-answers than false control items ($\beta = -4.6473$, SE = 0.3540, $z = -13.127$, $p < 0.0001$).

- With respect to *yes*/*no*-answers to true control items and critical items the difference is significant ($\beta = -2.9008$, SE = 0.3053, $z = -9.503$, $p < 0.0001$).

- With respect to *yes*/*no* answers to incorrect control items and critical items the difference is significant as well ($\beta = 1.5788$. SE = 0.2728, $z = 5.787$, $p < 0.0001$).
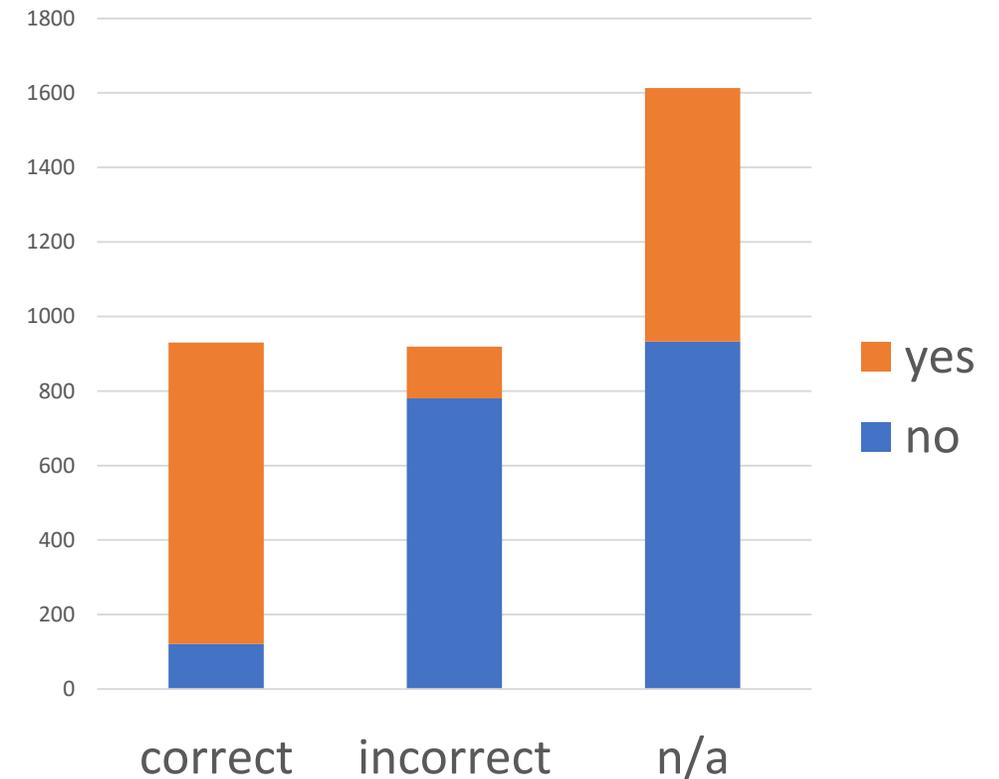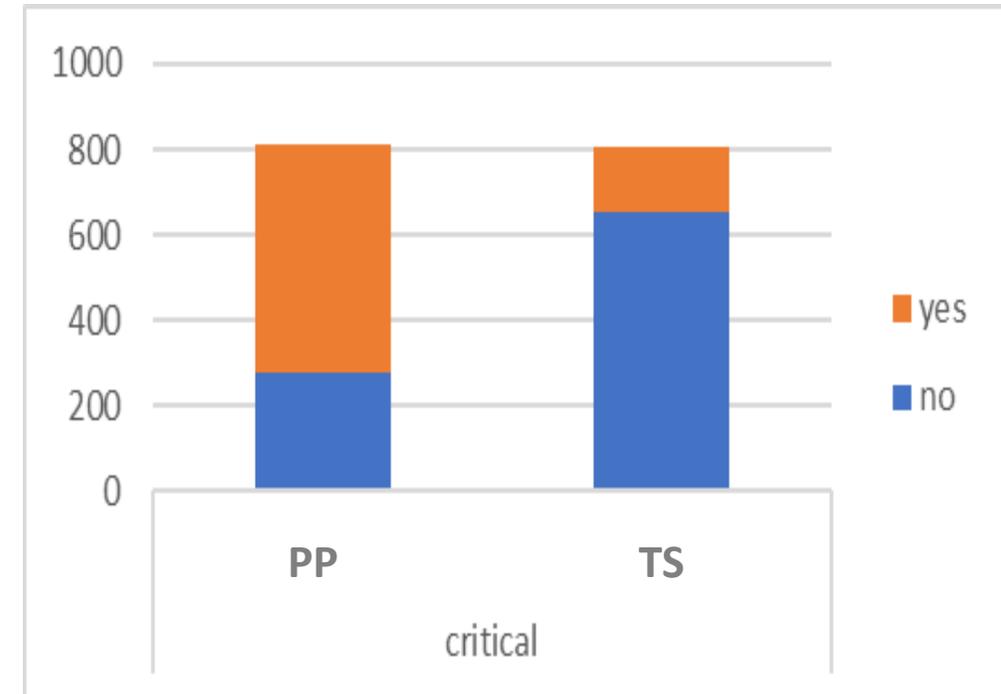
Results II

- The difference for reaction times turned out to be significant in processing of true control and critical items (β = -0.109177, SE = 0.02109411, t = -5.17573, p = 0.0000) and false control and critical answers (β = -0.088112, SE = 0.02117901, t = -4.16034, p = 0.0000).

- The difference for reaction times was not significant in processing of true and false critical items (β = -0.021066, SE = 0.02383794, t = -0.88370, p = 0.3769).
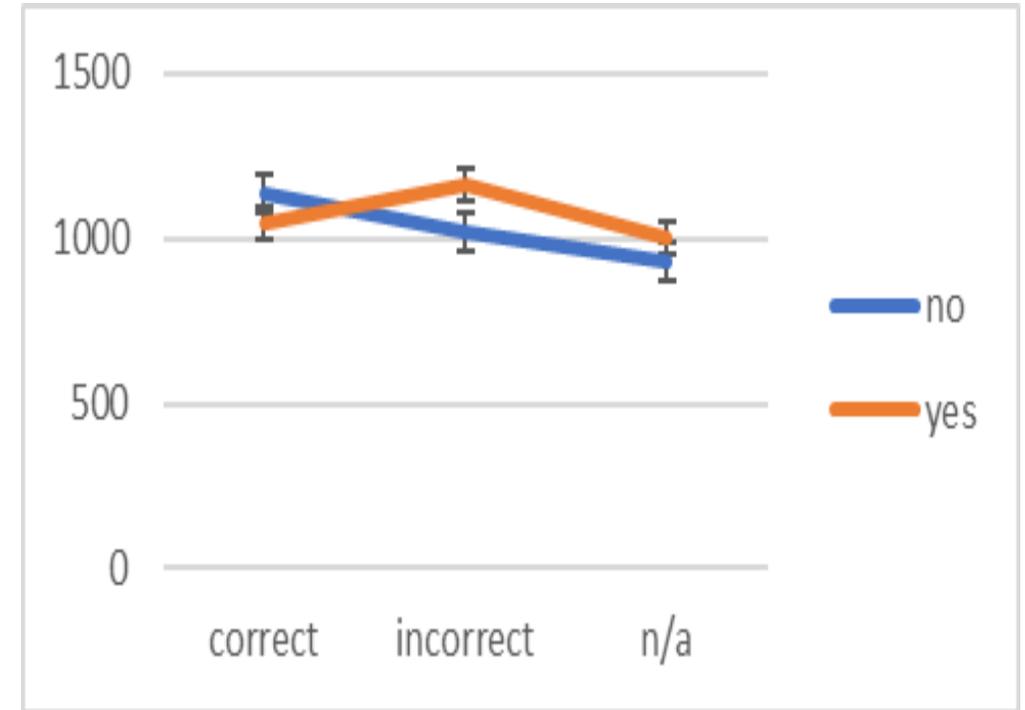
Results III

- The difference between two interpretations (permanent properties vs. transitory states) turned out to be statistically significant both for subjects (β = -3.0479, SE = 0.1617, z = -18.85, p < 0.0001) and for items (β = -2.2232, SE = 0.1712. z = -12.984, p < 0.0001).

- Critical items, in which the conveyed message included permanent properties, received significantly more *yes*-answers than critical items with transitory states. The latter, in turn, received significantly more *no*-answers than critical items with permanent properties.

Results IV

- No significant difference was observed in reaction times for two types of interpretations (including permanent properties vs. transitory states) both for subjects (β = -0.002022, SE = 0.02466346, t = -0.0820, p = 0.9347) and for items (β = -0.014333, SE = 0.03663178, t = -0.39127, p = 0.6957).
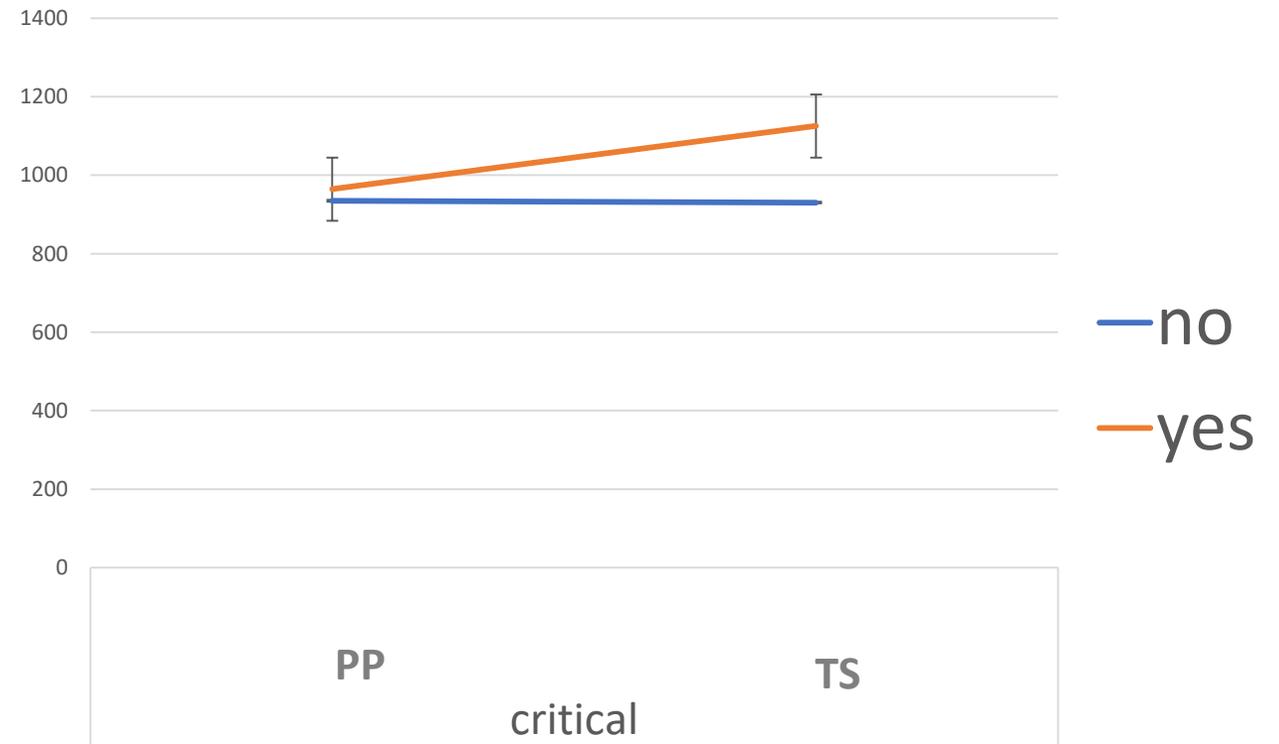
Discussion I

- The participants were significantly more likely to accept the conveyed messages with permanent properties than messages with transitory states.

- The results are consistent with our alternative hypothesis that only inherent or classificatory properties of an individual can be invoked by using a tautology with proper name.

- Why is it so?

Discussion II

- ✓ The form of the tautology imposes an identity requirement between the two proper names involved.
  - Tautologies with proper names give rise to three main kinds of interpretations: uniqueness of the referent, unchangeability of the referent and identification of the referent.

    (Vilinbakhova and Escandell-Vidal 2021)
  - The interpretation selects characterizing features of the referent, because they are needed to sustain any claim on uniqueness, unchangeability and identification.
  - Inherent, permanent and specific properties are, therefore, the choice option.

Discussion III

✓ The distinction between inherent, classificatory properties of individuals and episodic or transitory stages in which an individual is found is reminiscent of the difference between Individual-Level Predicates (ILPs) and Stage-Level Predicates (SLPs).

- 'Property predicates': *tall, intelligent, beautiful, boring or crazy*, and predicates of shape and color
- 'State-descriptive predicates': *sick, hungry, tired, drunk* or *naked*

Discussion IV

Properties are those facts about entities which are assumed to be, even if they are not in fact, permanent, unalterable and in some sense possessed by the entity, while states are conditions which are, at least in principle, transitory, not possessed by the entity of which they are predicated and the removal of which causes no change in the essential qualities of the entity.

(Milsark 1974: 212)

Discussion V

- There is a number of well-known effects of ILP/SLP distinction in the grammar of natural languages.

- The results obtained lend further support to the idea that the ILP/SLP distinction is deeply rooted in human cognition, as a contrast between what is inherent to an individual and what is not.

1. Introduction

2. Literature overview

3. Corpus study

4. Experiment

5. **Conclusions**

✓ The results of both the corpus study and the experimental study align with the predictions of our hypothesis.

✓ Shared knowledge is not a **necessary** requirement for the felicitous use of tautologies

✓ Speakers frequently complement tautologies with additional material, which indicates that it is not the evocation of actually shared knowledge that is at stake, but the presentation of an irrefutable truth (whether shared or not).

- ✓ The predictions of the claims in the previous literature, according to which all kinds of shared knowledge would behave alike, are not born out.

- ✓ Only inherent or classificatory properties of an individual can be invoked by using a tautology.

- ✓ Shared knowledge is not the criterial notion.

- ✓ The results of the measure of reaction times did not show the expected contrast between true classificatory interpretations and false episodic interpretations – the issue needs further research.

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