

# A non-exclamative account of Catalan “Déu n’hi do”

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## What does DND mean?

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- Very rough paraphrase: “quite” + !!

(1) Déu n’hi do quin fred que fa!  
DND            what cold that makes  
‘It’s quite cold!’

## Why do we want to investigate DND?

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- It is a *wh*-embedding predicate that differs semantically and pragmatically from other *wh*-embedding predicates such as *know* or *it's amazing*.
- It selects for *wh*-exclamatives, but it does **not** indicate **extreme degree**.
- It shows a complex **semantic behavior**, conveying meaning at different semantic levels.

# Claims

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- DND does not select for exclamatives or interrogatives, but for *wh*-clauses.

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- DND generates a conversational implicature such that the proposition that is true in the actual world is compatible with the worlds that the speaker considers *unusual* (but not weird).
- DND contributes to discourse at both *at-issue* and *CI* domains of meaning.

# Outline

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1. Background
2. Properties
3. An exclamative account
4. Proposal: a non-exclamative account
  - *Wh*-embedding predicate
  - A scalar implicature
  - Expressive meaning
5. Conclusions

## Where does DND come from?

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- Literal translation

- (2) Déu n'hi do.  
'God gave to you.'

## Diachrony

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- From a literal meaning,
  - (3) Donim un pa que Déu n'hi do.  
'Give me some bread that God gave to you.'
  
- it acquires a figurative meaning ...
  - (4) Tinc una feina que Déu n'hi do!  
I have a work that DND  
'I have quite a lot of work!'

## Diachrony

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- and becomes an emotive predicate.

(5) Déu n'hi do quina feina que tinc!  
DND            what work that I have  
'I have quite a lot of work!'

## Distribution

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- DND takes

- *wh*-clauses

- (6)
  - a. Déu n'hi do qui va anar a la festa!  
'DND who came to the party!'
  - b. Déu n'hi do que bé que sona!  
'DND how good it sounds!'
  - c. Déu n'hi do qui va ballar amb qui!  
'DND who danced with who!'

- DPs

- (7) Déu n'hi do la gent que va venir!  
'DND the people who came!'

## DND in the literature

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- Sancho (2003): DND is an intensifier “whose function is that of **emphasis**”. It may appear followed by an exclamative and in those cases “it **only reinforces** constructions which are emphatic by themselves.”

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- Sancho (2003): DND is an intensifier “whose function is that of **emphasis**”. It may appear followed by an exclamative and in those cases “it **only reinforces** constructions which are emphatic by themselves.”
- Cuenca (2002) classifies DND as an interjection which expresses **admiration or surprise**.

# Properties

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- DND-sentences have properties that indicate that ...
  - DND is not an intensifier.
  - DND is not redundant when it appears with a *wh*-clause.

# Properties

## Not extreme degree

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- DND conveys that an **extreme** degree has **not** been reached.
- (8) a. Déu n'hi do que alt que és. Tanmateix, no és extremament alt.  
'DND how tall he is. However, he's not extremely tall.'
- b. #It's amazing how tall he is. However, he's not extremely tall.

# Properties

## Not extreme degree

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- This meaning can be canceled ...

(9) Déu n'hi do que alt que és! De fet, és extremament alt.  
'DND how tall he is! In fact, he's extremely tall.'

- ... but not always.

(10) #Déu n'hi do que extremament alt que és!  
'DND how extremely tall he is!'

# Properties

## Discourse possibilities

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- DND can **answer** questions . . .

- (11)
- Have you published many papers?
  - Déu n'hi do.
  - #It's amazing.
  - #How many papers I've published!

# Properties

## Discourse possibilities

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- ... and be **embedded syntactically**.

(12) Crec que \*(Déu n'hi do) que guapo que és el seu nòvio!  
'I believe that DND how cute her boyfriend is!'

# Properties

## Intonation

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- It usually appears with an exclamative **intonation**, but can also appear without it.
- (13)
- a. La Júlia creu que [Déu n'hi do que guapo que és el seu nòvio!]*ExInt*.
  - b. La Júlia creu que Déu n'hi do que guapo que és el seu nòvio.  
'Júlia believes that DND how cute her boyfriend is.'

# An exclamative account

## Zanuttini and Porter (2003)'s semantics of exclamatives

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1. A *wh*-operator-variable structure: it creates the denotation of a set of alternative propositions.
2. A widening operation: the initial domain of quantification,  $D1$ , is widened to a new domain  $D3$ , which contains more extreme values.

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2. A widening operation: the initial domain of quantification,  $D1$ , is widened to a new domain  $D3$ , which contains more extreme values.
3. A factive morpheme: All propositions evaluated in  $D3-D1$  are true.

# An exclamative account

## Zanuttini and Porter (2003)'s semantics of exclamatives

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- (14)
- a.  $\llbracket \text{what things he eats!} \rrbracket_w = \{ \text{he eats poblanos, he eats serranos, he eats jalapeños} \}$
  - b.  $D1 = \{ \text{poblano, serrano, jalapeño} \}$
  - c.  $D3 = \{ \text{poblano, serrano, jalapeño, güero, habanero} \}$
  - d. Presupposition:  $\llbracket \text{what things he eats!} \rrbracket_w = \{ \text{he eats güeros, he eats habaneros} \}$

# An exclamative account

## DND lexical meaning: intermediate widening (Mayol 2007)

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- DND presupposes that there is another domain of quantification, D2, which is a proper subset of D3 and a proper superset of D1.

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## An exclamative account

### DND lexical meaning: intermediate widening (Mayol 2007)

- DND presupposes that there is another domain of quantification, D2, which is a proper subset of D3 and a proper superset of D1.
- DND assertion: all propositions evaluated in D2–D1 are true.
- DND scalar implicature: all propositions evaluated in D3–D2 are implicated to be false.

## An exclamative account

### DND lexical meaning: intermediate widening (Mayol 2007)

- (15) a.  $D1 = \{\text{poblano, serrano, jalapeño}\}$   
b.  $D2 = \{\text{poblano, serrano, jalapeño, güero}\}$   
c.  $D3 = \{\text{poblano, serrano, jalapeño, güero, habanero}\}$
- (16) a. DND assertion:  $\llbracket \text{DND what things he eats!} \rrbracket_w = \{\text{he eats güeros}\}$   
b.  $\llbracket \text{DND what things he eats!} \rrbracket_w = \text{'he eats habaneros'}$  is implicated to be false.

# An exclamative account

## Why an alternative?

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- **Widening** is not an uncontroversial component of *wh*-exclamatives (cf. D'Avis 2002, Abels 2005, Castroviejo 2006, Rett t.a.). In particular, its status and generation, and the need of such a notion.

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- It does not account for the contribution of **intonation**.

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- It does not account for the contribution of **intonation**.
- We want to try a **simpler** analysis that does not resort to unnecessary machinery and explains the puzzles.

## A non-exclamative account

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The utterance of a DND sentence may involve ...

- at-issue meaning
- a conversational implicature
- expressive meaning

# A wh-embedding predicate

## An analysis of “surprise” predicates

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- We assume Sharvit (2002)'s analysis of *surprise*:

$$(17) \quad \llbracket \text{surprise} \rrbracket^{H/K} (w)(Q)(a) = 1 \text{ iff} \\ \text{NONEXP}(a)(w) \supseteq \cap \{p : p \in Q(w) \ \& \ w \in p\}, \text{ where:}$$

- $\text{NONEXP}(a)$  is the complement set of the set of worlds compatible with  $a$ 's expectations.
- $Q$  is a Hamblin/Karttunen-style question intension.

# A wh-embedding predicate

## An analysis of “surprise” predicates

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- (18)
- a. It surprises John who came.
  - b. For all worlds  $w$ , the proposition that truthfully answers the question *Who came in  $w$ ?* is not compatible with John's set of expected worlds.

# A wh-embedding predicate

## Unusual worlds

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- We take the relevant set of worlds to be **UNUSUAL( $a$ )** instead of **NONEXP( $a$ )**:
  - **UNUSUAL( $a$ )** is the complement set of the set of worlds compatible with what  $a$  considers to be standard.
  - **UNUSUAL( $a$ )** is a subset of the set of weird worlds (let's call it **WEIRD( $a$ )**), such that  $\forall w [w \in \text{WEIRD}(a) \rightarrow w \in \text{UNUSUAL}(a)]$ , but the other way around does not hold.

# A wh-embedding predicate

## Unusual worlds

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- We claim that DND has a denotation that involves UNUSUAL( $a$ ):

$$(19) \quad \llbracket \text{DND} \rrbracket(w)(Q)(a) = 1 \text{ iff} \\ \text{UNUSUAL}(a)(w) \supseteq \cap \{p : p \in Q(w) \ \& \ w \in p\}, \text{ where:}$$

- $a$  identifies the speaker by default, but it may identify another individual when DND is embedded under a belief predicate.

# A wh-embedding predicate

## Unusual worlds

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- (20)
- a. Déu n'hi do quines coses que menja!  
'DND what things he eats!'
  - b. For all worlds  $w$ , the proposition that truthfully answers the question *What things does he eat in  $w$ ?* is not compatible with the speaker's set of standard worlds.

# A wh-embedding predicate

## At-issue meaning

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- Only at-issue meaning can have the discourse effect of an assertion, i.e., only with an assertion can we answer a question.
- DND can answer a question, so it has at-issue content (specifically, the one depicted in (19)).

# A scalar implicature

## The prototypical case

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- $\langle \text{some}, \text{all} \rangle$ :  $\leftarrow$  entailment.
- *Some* implicates *not all*.

(21) I met some of my friends at the party. However, I didn't meet all of them.

- Conversational implicatures can be canceled.

(22) I met some of my friends at the party. In fact, I met all of them.

# A scalar implicature

## A scale of unusualness

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DND generates a **scalar implicature** as a consequence of it involving UNUSUAL.

- $\langle \text{UNUSUAL}(a), \text{WEIRD}(a) \rangle$ :  $\leftarrow$  entailment.
- An unusual world may (but must not) be a weird world.
- The use of  $\text{UNUSUAL}(a)$  implicates that  $\text{WEIRD}(a)$  does not hold.

# A scalar implicature

## A scale of unusualness

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- Since the use of  $\text{UNUSUAL}(a)$  implicates that  $\text{WEIRD}(a)$  does not hold, we can **reinforce** this implicature.

(23) Déu n'hi do que alt que és! Tanmateix, no és extremament alt.

'DND how tall he is! However, he's not extremely tall.'

# A scalar implicature

## A scale of unusualness

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- As a conversational implicature, it can be  **canceled**, which complies with the idea that unusual worlds may be weird worlds.

(24) Déu n'hi do que alt que és! De fet, és extremament alt.  
'DND how tall he is! In fact, he's extremely tall.'

## A scalar implicature

### Similar to 'quite'

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- *quite* has a similar effect as DND when the latter takes as argument a degree *wh*-clause.

- (25) a. DND how tall Pau is!  
b. Pau is quite tall!

- *quite* takes as argument a gradable property and it conveys that its degree is high (but not necessarily extremely high). Specifically,  $\langle \text{quite, very} \rangle$ :  $\leftarrow$  entailment.

- (26) a. Pau is quite tall. However, he's not very tall.  
b. Pau is quite tall! In fact, he is very tall.

## Expressive meaning

### DND as an expressive

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- DND is usually accompanied by intonation.

- (27)
- Déu n'hi do com és d'alt en Pau! *ExInt*  
'DND how tall Pau is!'
  - Déu n'hi do qui ha vingut a la festa! *ExInt*  
'DND who came to the party!'

- We claim that this intonation conveys an **expressive meaning** (Potts 2007).

# Expressive meaning

## DND as an expressive

---

- We propose that  $\text{ExInt}$  takes a world  $w$  and a proposition  $p$  and it conveys the following meaning:

(28)  $\text{NONEXP}_s(w) \supseteq p$ , where:

- $\text{NONEXP}_s$  is the complement set of the set of worlds compatible with the speaker's expectations (cf. (17)).
- $p$  corresponds to the true answer to  $Q$  in the at-issue dimension (cf. (19)).

## Expressive meaning

### DND as an expressive

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- Perspective dependence: it cannot be embedded (i.e., it is strictly **speaker-oriented**).

(29) La Júlia creu que [Déu n'hi do que tard que ha arribat en Pere ( $\#!_{ExInt}$ )], però a mi no m'ho sembla.  
'Julia believes that DND how late Peter was!, but I don't feel this way.'

# Expressive meaning

## DND as an expressive

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- Nondisplaceability: it expresses something about the **utterance** situation.

(30) Déu n'hi do que tard que va arribar en Pere ahir  
( $\#!_{ExInt}$ ) Ahir em va sorprendre, però avui ja no.  
'DND how late Peter was yesterday! This surprised me  
yesterday, but not today.'

# Expressive meaning

## DND as an expressive

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- Immediacy: it behaves like a **performative** (i.e., it achieves its intended act simply by being uttered).

- (31)
- A: Déu n'hi do que tard que va arribar en Pere ahir!<sub>*ExInt*</sub>  
'DND how late Peter was yesterday!'
  - B1: That's not true. He arrived as usual.
  - B2: # That's not true. I don't think this is unexpected at all.
  - B3: # That's true. I also think this is unexpected.

# Expressive meaning

## DND as an expressive

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- Independence: it can be **removed** and the regular descriptive meaning is still conveyed.

- (32)
- a. A: Has publicat gaire?  
'Have you published much?'
  - b. B: Déu n'hi do.  
'Quite a lot.'

# Expressive meaning

## DND as an expressive

---

- DND and the exclamative intonation are independent, but they usually co-occur.
- Why?
  - DND asserts that something is unusual.
  - Unusual things are generally (but not necessarily) unexpected.
  - DND + ExInt allows the speaker to convey both things at a time: unusualness + unexpectedness.

# Expressive meaning

## Interaction between dimensions of meaning

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- How can we explain the following contrast?

- (33)
- a. Déu n'hi do que alt que és! De fet, és extremament alt.  
'DND how tall he is! In fact, he is extremely tall.'
  - b. #Déu n'hi do que extremament alt que és!  
'DND how extremely tall he is!'

# Expressive meaning

## Interaction between dimensions of meaning

---

(34) Déu n'hi do que alt que és! De fet, és extremament alt.  
'DND how tall he is! In fact, he is extremely tall.'

- The scalar implicature is canceled by an assertion.

# Expressive meaning

## Interaction between dimensions of meaning

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(35) #Déu n'hi do que extremament alt que és!  
'DND how extremely tall he is!'

- *Extremely* is a non-restrictive modifier, which is computed at the CI dimension (cf. Castroviejo 2007).
- We claim that CI items cannot cancel scalar implicatures.

# Expressive meaning

## Interaction between dimensions of meaning

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- Further evidence with other CI items, **supplements**:

- (36)
- I met a pretty tall boy. In fact, he was extremely tall.
  - #I met a pretty tall boy, who was extremely tall/a giant.

# Expressive meaning

## Interaction between dimensions of meaning

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- **Presuppositions** cannot cancel implicatures, either:

- (37)
- Some of my students came to the party. In fact, I believe that all of them came.
  - #Some of my students came to the party. In fact, I regret that all of them came.

## Recap

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- DND conveys:
  - At-issue meaning: similar to *quite* . . .
  - . . . which can be canceled (i.e., by an assertion, but not by a CI or a presupposition).
  - Together with intonation, a CI meaning: the true answer of the DND-sentence is unexpected.

## Relevance: beyond Catalan DND

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- We have shown that we can account for the properties of embedded *wh*-clauses with a single semantic denotation: i.e., we can **subsume** the semantics of interrogatives and exclamatives under a common semantics.

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- We have highlighted the semantic role of **intonation** and have proposed an interpretation for it.

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- We have highlighted the semantic role of **intonation** and have proposed an interpretation for it.
- We have identified another parameter that characterizes **assertions** (w.r.t. CIs and presuppositions), namely the ability to **cancel** conversational implicatures.

## Further research

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- How should we formalize and restrict the interactions between the at-issue and CI dimension?

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- How different are DND and other emotive predicates like *it's amazing*?

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- How should we formalize and restrict the interactions between the at-issue and CI dimension?
- How different are DND and other emotive predicates like *it's amazing*?
- Are DPs embedded under DND *amazing DPs*?

# Thank you!

Comments are more than welcome ;-)

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