Kickstarting the Italian Constructicon

from idea to implementation through data structuring



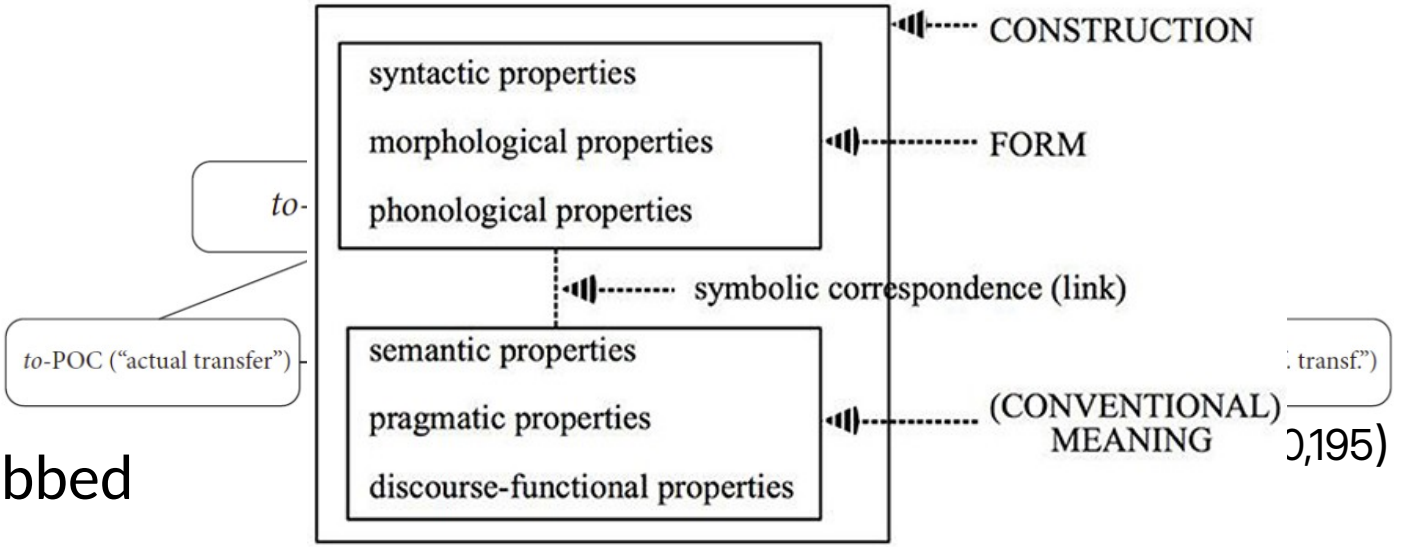
Ludovica Pannitto, **Francesca Masini**
(… & the extended ItCon team)

Experimental Laboratory
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Pedagogical Application of Constructicography (PAC 2025) - University of Gothenburg, 14-15 May 2025

Construction Grammar (CxG)

- In CxG, the basic units of linguistic knowledge are **constructions**
  - Pairings of form and function
  - Different kinds of cxns
- They are stored as a network, also dubbed ***Construct-i-con*** (Diessel 2023), that represents the structured inventory of all the constructions in a language



Croft (2001,18)

- Syntactic cxns: e.g., *Argument structure cxns*
- Morphological cxns: e.g., *compounds*
- Idioms
- …

Constructicons and constructicography

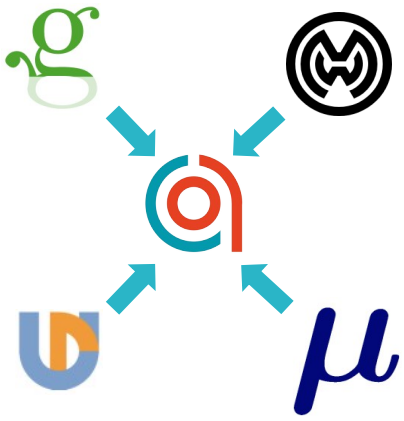
... the **Constructicon is also a linguistic resource** that aims at representing and formalising the **network** of constructions in a given language to consistently and coherently describe the grammar of that specific language (Lyngfelt et al., 2018a)

- Constructicography can thus be considered as a blend between lexicography and CxG (Boas et al. 2019)
- Constructicons already exist for a growing number of languages (e.g., Janda et al. 2018; Lyngfelt et al. 2018b; Torrent et al. 2018), and are **often linked to the FrameNet** enterprise (Baker et al., 1998)
- Marginal position of Italian in the international constructionist landscape: CxG is applied to Italian but to a lesser extent, and crucially, there are no CxG/FrameNet resources available!
- On the other hand, Italian has a large amount of available, high-quality resources and a long-standing tradition in syntactic annotation, especially in UD.

Today's focus:

- AdoC (*Adopt a Construction*) project to build the first Italian Constructicon (**ItCon**)
- The main focus falls on (**semi**-)**schematic constructions**:
  - both <u>syntactic</u> (argument structures, formal idioms, etc.) and <u>morphological</u> (word formation) with one or more open slots

- How to design the data architecture in order to **make the project maintanable** and how to get the most out of **data we already have**



Materials for the next slides: Marie-Catherine de Marneffe, Joakim Nivre, and Daniel Zeman

UD principles

*"Universal Dependencies (UD) is a project developing **cross-linguistically consistent treebank annotation** for many languages, with the goal of facilitating multilingual parser development, cross-lingual learning, and parsing research from a **language typology** perspective."*

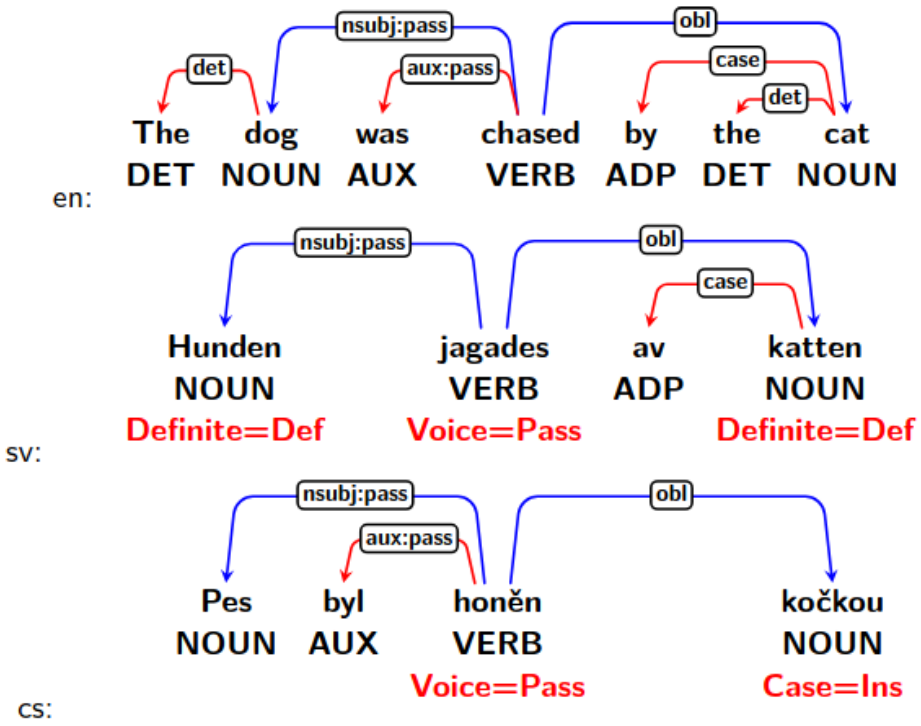
UD is A project — but also an **annotation scheme**, a data repository and a **community**

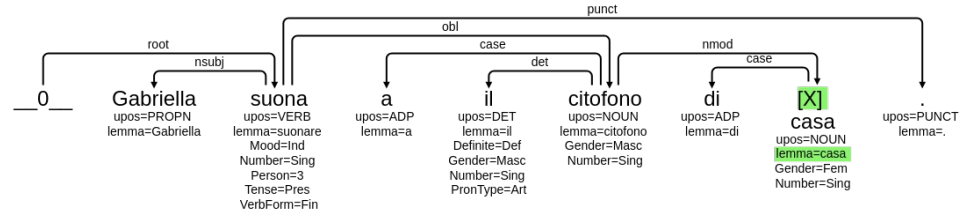
1. Maximize parallelism – but don’t overdo it
    1. Don’t annotate the same thing in different ways
    2. Don’t make different things look the same
    3. **Don’t annotate things that are not there**

2. Universal **taxonomy** with language-specific elaboration
    1. Languages select from a universal pool of categories
    2. Allow language-specific extensions

1. Basic principles:
1. The primacy of content words
2. Clauses, nominals and modifier words
3. Core arguments vs. oblique dependents

2. **Universal** and **language-specific** relations





sent_id = isst_tanl-1371

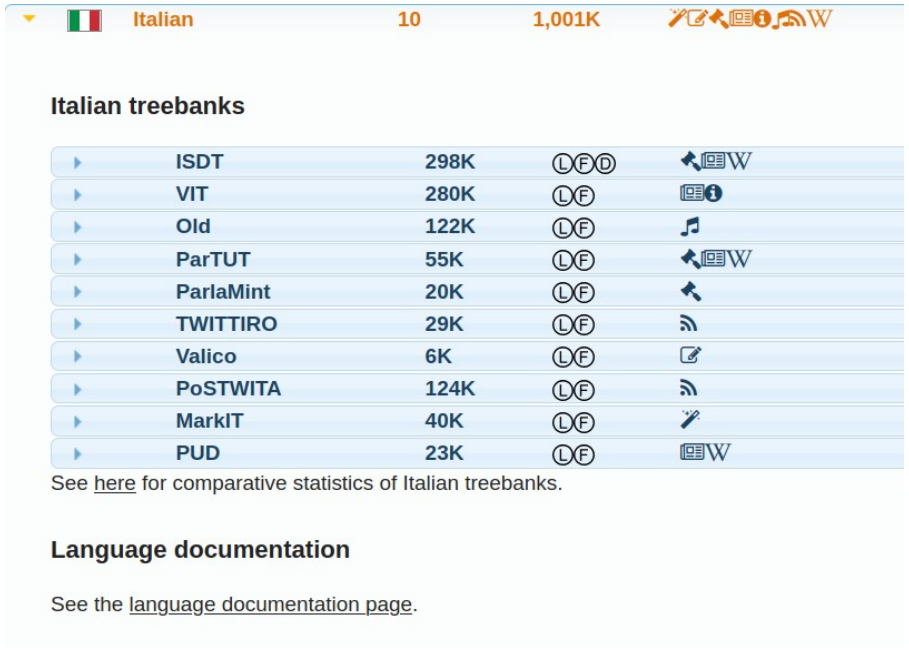
text = Gabriella suona al citofono di casa.

ID	FORM	LEMMA	UPOS	XPOS	FEATS	HEAD	DEPREL	ENHANCED	MISC
1	Gabriella	Gabriella	PROPN	SP	_	2	nsubj	_	_
2	suona	suonare	VERB	V	Mood=Ind|Number=Sing|Person=3|Tense=Pres|VerbForm=Fin	0	root	_	_
3-4	al	_	_	_	_	_ _		_	_
3	a	a	ADP	E	_	5	case	_	_
4	il	il	DET	RD	Definite=Def|Gender=Masc|Number=Sing|PronType=Art	5	det	_	_
5	citofono	citofono	NOUN	S	Gender=Masc|Number=Sing	2	obl	_	_
6	di	di	ADP	E	_	7	case	_	_
7	casa	casa	NOUN	S	Gender=Fem|Number=Sing	5	nmod	_	SpaceAfter=No
8	.	.	PUNCT	FS	_	2	punct	_	_

	Nominals	Clauses	Modifier words	Function Words
Core arguments	nsubj obj iobj	csubj ccomp xcomp		
Non-core dependents	obl vocative expl dislocated	advcl	advmod* discourse	aux cop mark
Nominal dependents	nmod appos nummod	acl	amod	det clf case
Coordination	**Headless**	**Loose**	**Special**	**Other**
conj cc	fixed flat	list parataxis	compound orphan goeswith reparandum	punct root dep

- Not making a case for or against Universal Dependencies, but:
- Great tools:
  - For manual annotation
  - For automatic annotation (udpipe has 98% accuracy on Parts of speech tagging and 93% accuracy on dependency parsing on standard italian – Straka et al. 2019)
  - For querying (see later)
- Many "construction-compatible" proposals:
  - PARSEME for multiword expressions
  - Universal Derivations for word formation
  - Poposals for joint annotation of morphology and syntax

Italian within UD project



Italian	10	1,001K	

Italian treebanks

ISDT	298K	LFD	
VIT	280K	LF	
Old	122K	LF	
ParTUT	55K	LF	
ParlaMint	20K	LF	
TWITTIRO	29K	LF	
Valico	6K	LF	
PoSTWITA	124K	LF	
MarkIT	40K	LF	
PUD	23K	LF	

See here for comparative statistics of Italian treebanks.

Language documentation

See the language documentation page.

> Italian has a very solid tradition in the UD enterprise, with resources already appearing in the first release dating back to 2015

> No treebank with **naturally occurring spoken language** available (yet)

Materials for the next slides: Bruno Guillaume

Grew and Grew-match

Outline

- Construction Grammar and Constructicography
- The ItCon project:
  - Annotation format
  - Graph maintenance
- WordNet experiment
  - Case study 1: light verbs constructions
  - WordNet for semantic annotation
  - Perspectives and limitations
- Future steps: inter-slot paradigmatic relations
- Conclusions and future directions

Thinking big: scope and focus

- Differently from other constructicons, Italian Constructicon aims to reach a **greater coverage** in terms on construction types, in compliance with the **lexicon-syntax continuum** promoted by CxG, by giving space to **morphological constructions**
- The resource is **not biased on predicative constructions** since it is not based on FrameNet
- The main focus falls on (**semi**-)**schematic constructions**:
  - both <u>syntactic</u> (argument structures, formal idioms, etc.) and <u>morphological</u> (word formation)



  - Cognate Object Constructions
    dormire$_{V}$ *sonni*$_{N}$ *tranquilli* ‘sleep soundly’
  - Multiword expressions
    fare una N-*ata* ‘do an action in the style of N’

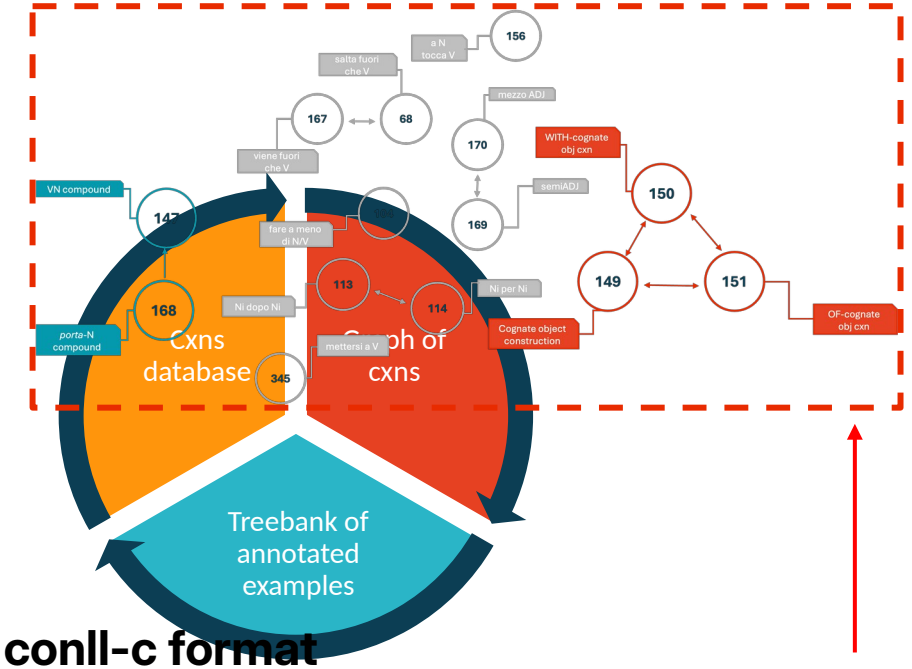


  - Verb-Noun compounds
    porta$_{V}$*foglio*$_{N}$ ‘wallet’
  - Prefixation, e.g. *semi*-Adj ‘semi-Adj’
    seminascosto$_{ADJ}$ ‘half hidden’

ItCon: architecture

- It is a **tripartite resource** made of:
  - a git-managed **database of constructions**
  - a **network of cxns**
  - a ~~**corpus/treebank of annotated example**~~ **sentences in UD-format,** linked to as many constructions as possible

Graph of cxns



cxn-id: 68

name: salta fuori che V

cxn-machine-readable: cxn_68.conllc

definition:
A new piece of information comes to the speaker's knowledge from an external source. The information acquired is often unexpected or contradicts the speaker's expectations on the state of affairs, thus generating surprise in the speaker.
However, since the moment of acquisition and the moment of enunciation are distinct, this construction does not convey that the speaker is currently surprised, but it is used to convey or generate surprise in the audience.

restrictions:
The main verb saltare fuori is always impersonal, so it has no subject and it is always found in the 3rd person singular.
The verb in the complement clause is always in a finite form.

conll-c format
formalization of constructions as a set of fields

```
# cxn_id = 68
# name = salta fuori che V
# function = ref:D is found out unexpectedly
# horizontal_links = 167
# vertical_links =
# fields = ID UD.FORM LEMMA UPOS FEATS HEAD DEPREL REQUIRED WITHOUT SEM_FEATS SEM_ROLES ADJACENCY IDENTITY
A       _       saltare VERB    Number=Sing|Person=3    0       root    1       CHILDREN:DEPREL=nsubj   _
B       fuori   fuori   ADV     _       A       advmod  1       _       _       _       _       _
C       che     che     SCONJ   _       D       mark    1       _       _       _       _       _
D       _       _       VERB,NOUN,ADJ   VerbForm=Fin    A       csubj   1       _       _       Eventuality
```

In the **database**, each construction is described in a yaml file

ItCon: architecture

- It is a **tripartite resource** made of:
  - a git-managed **database of constructions**
  - a **graph of cxns**
  - a **corpus/treebank of annotated example sentences in UD-format,** linked to as many constructions as possible

conll-c format

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# fields = ID UD.FORM LEMMA UPOS FEATS HEAD DEPREL REQUIRED WITHOUT SEM_FEATS SEM_ROLES ADJACENCY IDENTITY
A       _       saltare VERB    Number=Sing|Person=3    0       root    1       CHILDREN:DEPREL=nsubj   _
B       fuori   fuori   ADV     _       A       advmod  1       _       _       _       _       _
C       che     che     SCONJ   _       D       mark    1       _       _       _       _       _
D       _       _       VERB,NOUN,ADJ   VerbForm=Fin    A       csubj   1       _       _       Eventuality
```

Annotated examples

```
# sent_id = tut-3121
# source = http://hdl.handle.net/11234/1-5502/UD_Italian-ISDT/it_isdt-ud-train/tut-3121
# text = Vediamo allora qualche criterio per ricomporre o confermare il proprio portafoglio.

1       Vediamo         vedere          VERB    V       Mood=Ind|Number=Plur|Person=1|Tense=Pres|VerbForm=Fin    0       root            0:root          _
2       allora          allora          ADV     B       _                                                       1       advmod          1:advmod        _
3       qualche         qualche         DET     DI      Number=Sing|PronType=Ind                                4       det             4:det           _
4       criterio        criterio        NOUN    S       Gender=Masc|Number=Sing                                 1       obj             1:obj           _
5       per             per             ADP     E       _                                                       6       mark            6:mark          _
6       ricomporre      ricomporre      VERB    V       VerbForm=Inf                                            4       acl             4:acl:per       _
7       o               o               CCONJ   CC      _                                                       8       cc              8:cc            _
8       confermare      confermare      VERB    V       VerbForm=Inf                                            6       conj            4:acl:per|6:conj:o      _
9       il              il              DET     RD      Definite=Def|Gender=Masc|Number=Sing|PronType=Art       11      det             11:det          _
10      proprio         proprio         DET     AP      Gender=Masc|Number=Sing|Poss=Yes|PronType=Prs           11      det:poss        11:det:poss     _
11      portafoglio     portafoglio     NOUN    S       Gender=Masc|Number=Sing                                 8       obj             8:obj           SpaceAfter=No|CXN=147:A|CXN=168:A
11.1    porta           portare         VERB    _       Mood=Imp|Number=Sing|Person=2                           11      root/m          _               CXN=147:A.1|CXN=168:A.1
11.2    foglio          foglio          NOUN    _       Numer=Sing                                              11.1    case/m          _               CXN=147:A.2|CXN=168:A.2
12      .               .               PUNCT   FS      _                                                       1       punct           1:punct         _
```

ItCon: CoNLL-c format

Metadata

```
# cxn_id = 167
# name = viene fuori che V
# function = ref:D is found out unexpectedly

# horizontal_links = 68
# vertical_links =

# fields = ID UD.FORM  LEMMA UPOS FEATS HEAD DEPREL REQUIRED WITHOUT SEM_FEATS SEM_ROLES ADJACENCY IDENTITY
```

A	_	venire	VERB	Number=Sing|Person=3	0	root	1	CHILDREN:DEPREL=nsubj	_	_	_	_
B	fuori	fuori	ADV	_	A	advmod	1	_	_	_	_	_
C	che	che	SCONJ	_	D	mark	1	_	_	_	_	_
D	_	_	VERB,NOUN,ADJ	VerbForm=Fin	A	csubj| ccomp	1	_	_	Eventuality	_	_

Fields

cxn: *viene fuori che* V ‘it turns out that

ItCon: CoNLL-c format

ID	UD.FORM	LEMMA	UPOS	FEATS	HEAD	DEPREL	REQUIRED	WITHOUT	SEM_FEATS	SEM_ROLES	ADJACENCY	IDENTITY
A	_	venire	VERB	Number=Sing|Person=3	0	root	1	CHILDREN:DEPREL=nsubj	_	_	_	_
B	fuori	fuori	ADV	_	A	advmod	1	_	_	_	_	_
C	che	che	SCONJ	_	D	mark	1	_	_	_	_	_
D	_	_	VERB,NOUN,ADJ	VerbForm=Fin	A	csubj| ccomp	1	_	_	_	_	_

CoNLL compatible fields

Constraining matching process in UD-annotated sentences

Further semantic, formal and mophosyntactic constraints

From CoNLL-c to *grew*

ItCon: matching process

- ConLL-c format allows us to formalize constructions as a set of constraints in order to match instances of our cxns (constructs) in UD-annotated corpora (e.g., **Grew** query language):



- However, the set of constraints provided by an UD-compliant annotation is not always enough to identify relevant instances of the cxns...

Annotation scheme

cxn-id: 68

name: salta fuori che V

cxn-machine-readable: cxn_68.conllc

definition:
A new piece of information comes to the speaker's knowledge from an external source. The information acquired is often unexpected or contradicts the speaker's expectations on the state of affairs, thus generating surprise in the speaker.
However, since the moment of acquisition and the moment of enunciation are distinct, this construction does not convey that the speaker is currently surprised, but it is used to convey or generate surprise in the audience.

restrictions:
The main verb saltare fuori is always impersonal, so it has no subject and it is always found in the 3rd person singular.
The verb in the complement clause is always in a finite form.

coll-preferences:

Annotation scheme

usage:

form-tags:
- cc:cxn:complement-clause-construction
- impersonal construction

function-tags:
- cc:sem:evidentiality
- cc:sem:mirative

complexity-level:
- clause

category-tags:
- not applicable

schematicity: partially filled/schematic

Other constructional properties
(coded as tags)

- Usage: preferred **contexts of occurrence** of the cxn (wrt Style, Variety, Modality)
- Complexity and schematicity of the cxn
- Part of speech (when dealing with phrases/words)

https://comparative-concepts.github.io/cc-database/#sem:evidentiality

evidentiality (*sem*)

Id	sem:evidentiality
Type	meaning
Alias(es)	evidentiality
Taxonomy	modality (*sem*) **evidentiality (*sem*)**
Definition	a category related to epistemic modality which indicates the epistemic justification for believing a proposition. *Example*: English *I hear you're going to Stanford this fall* is an evidential construction, using the first singular simple present form *I hear...*, which indicates that my evidence for your going to Stanford in the fall is hearsay. (Section 12.3.4)

Annotation scheme

horizontal-links:
- 167

vertical-links:

IDs of horizontally and vertically linked cxns

```
name: "viene fuori che V"

cxn-machine-readable: cxn_167.conllc

definition:
    A new piece of information comes to the speaker's knowledge
from an external source, ...
```

examples:
- 1_Paisà_FP06072024
- 2_Paisà_FP06072024
- 3_Paisà_FP06072024
- 4_Paisà_FP06072024
- 5_Paisà_FP06072024

cefr-level:

Level of proficiency of the cxn for L2 learners of Italian

references:
- Pisciotta2023confini

collector: Flavio

note:
This construction can have both an evidential and a mirative reading, depending on the surrounding context.
It is often found in adversative (example1, example5), temporal, or more generally, coordinate clauses (example3), which favour a mirative 'counterexpectation' reading (i.e., the event or state in the complement clause is in contrast with the speaker's expectations). More rarely, the external source of information is specified in the context, triggering an evidential interpretation (i.e., the speaker gets to know something from a source).

Further comments on usage, function and behavior of the cxn

Annotation scheme

cxn-id: 68

name: salta fuori che V

cxn-machine-readable: cxn_68.conllc

CoNLL format

definition:
A new piece of information comes to the speaker's knowledge from an external source. The information acquired is often unexpected or contradicts the speaker's expectations on the state of affairs, thus generating surprise in the speaker.
However, since the moment of acquisition and the moment of enunciation are distinct, this construction does not convey that the speaker is currently surprised, but it is used to convey or generate surprise in the audience.

restrictions:
The main verb saltare fuori is always impersonal, so it has no subject and it is always found in the 3rd person singular.
The verb in the complement clause is always in a finite form.

coll-preferences:

How to handle morphological constructions?

semi-
Adj

semi-autonomo
'semi-autonomous'

UPOS

- **free morphemes** = UD UPOS
- **BMORPH** (Bound MORPHeme) = bound forms, including affixes, affixoids, and combining forms

name = semiADJ
function = not fully or not properly ref:A-2
horizontal_links = 170
vertical_links =

# fields = ID	UD.FORM	LEMMA	UPOS	FEATS	HEAD	DEPREL	...
A	semi.+	semi.+	ADJ, NOUN	_	_	root	…
A.1	_	semi	BMORPH	_	_	der/m	...
A.2	_	_	ADJ	_	_	root/m	...

CoNLL format: fields

```
pattern { A [upos="NOUN"];
          B [form ="dopo"];
          C [upos="NOUN"];
          A < B; B < C;
          A -[nmod]-> C;
          C -[case]-> B;
          A.form = C.form
        }
```



N_i *dopo* 'after' N_i

ID	UD.FORM	LEMMA	UPOS	FEATS	HEAD	DEPREL	REQUIRED	WITHOUT	SEM_FEATS	SEM_ROLES	ADJACENCY	IDENTITY
A	_	_	NOUN	Number=Sing	0	root:obl	1	_	_	_	_	UD.FORM=C
B	dopo	dopo	ADP	_	C	case	1	_	_	_	A	_
C	_	_	NOUN	Number=Sing	A	nmod	1	_	_	_	B	UD.FORM=A



cxn_id = 113
name = discontinuous reduplication Ni dopo Ni
function = modifier conveying a succession/iteration/distribution of ref:A
horizontal_links = 114
vertical_links =

giorno dopo giorno
'day after day'

How to account for formal variability?

(*a*) NP *tocca* V

cxn_id = 156a
name = (a) NP tocca V-inf
function = ref:B has to ref:D
horizontal_links =
vertical_links =

ID	UD.FORM	LEMMA	UPOS	FEATS	HEAD	DEPREL	REQUIRED	WITHOUT	SEM_FEATS	SEM_ROLES	ADJACENCY	IDENTITY
A	_	a	ADP	_	B	case	0	_	_	_	_	_
B	_	_	PRON, NOUN, PROPN	Prontype=Prs	C	iobj	0	_	per	Experiencer	A	_
C	_	toccare	VERB	Number=Sing|Person=3	0	root	1	_	contact	_	B	_
D	_	_	VERB	VerbForm=Inf	C	csubj	1	_	_	_	_	_

cxn_id = 156b
name = (a) NP tocca V-inf
function = ref:A has to ref:D
horizontal_links =
vertical_links =

ID	UD.FORM	LEMMA	UPOS	FEATS	HEAD	DEPREL	REQUIRED	WITHOUT	SEM_FEATS	SEM_ROLES	ADJACENCY	IDENTITY
A	_	_	PRON	Clitic=yes	B	iobj	0	_	per	Experiencer	_	_
B	_	toccare	VERB	Number=Sing|Person=3	0	root	1	_	contact	_	A	_
C	_	_	VERB	VerbForm=Inf	B	csubj	1	_	_	_	_	_

Constraining constructions with WordNet



Case study: light verbs constructions

WordNet for semantic annotation of constraints

Perspectives and limitations

Why semantics matters? Light verbs cxns

- Example: causative [*fare* N] ‘do N’ light verbs constructions (Pompei & Piunno 2023; Pisciotta & Masini 2025)

1) *fare* *paura*
   do.INF fear.F.SG
   ‘to frighten’ (to cause somebody to have/feel fear)

[*fare* $N_{feeling}$] ↔ [cause X to feel N]

But…

fare is widely employed outside the psych domain to create non-causative predicates (Quochi 2007; Pompei & Piunno 2023)

- *fare rumore* ‘make noise’ ← «perform something» event
- *fare nuoto* ‘do swimming’ ← «habitual activity» event
- *fare parte* ‘be part of’ ← idiomatic meaning

Why semantics matters? Light verbs cxns

- Example: causative [*fare* N] ‘do N’ light verbs constructions

ID	UD.FORM	LEMMA	UPOS	FEATS	HEAD	DEPREL	REQUIRED	WITHOUT	SEM_FEATS	SEM_ROLES	ADJACENCY	IDENTITY
A	_	fare	VERB	_	0	root	1	_	_	_	_	_
B	_	_	NOUN	Number=Sing	A	obj	1	CHILDREN:DEPREL=det	OntoClass=feeling	_	_	_

```
pattern { X [lemma="fare"];
          Y [upos = "NOUN", Number=Sing];
          X-[obj]->Y;
          X << Y}

without { Y -[det]-> S}
```

Grew query

2) **@user oggi pomeriggio vado a fare palestra :3 tu ??**

‘I'm **going to the gym** this afternoon. What about you?’

3) **@user Anche una mia amica dovrebbe andarci ! :D**
Io sto cercando la voglia di fare latino! D:

‘A friend of mine should go there too!
I’m trying to find the motivation to **study Latin**’

(POSTwita)

WordNet for semantic annotation

REQUIRED	WITHOUT	SEM_FEATS	SEM_ROLES	ADJACENCY	IDENTITY
1	_	_	_	_	_
1	CHILDREN:DEPREL=det	OntoClass=feeling	_	_	_

Further semantic, formal and mophosyntactic constraints

WordNet for semantic annotation

- To avoid overgeneration, we implement some additional fields in our formalization, among which one is dedicated to semantic constraints on the fillers (SEM_FEATS)

→ Counterpart to UD's FEATS (Number, Gender, etc…) for Nouns and Verbs only

REQUIRED	WITHOUT	SEM_FEATS	SEM_ROLES	ADJACENCY	IDENTITY
1	_	_	_	_	_
1	CHILDREN:DEPREL=det	OntoClass=feeling	_	_	_

Semantic features	
Nominal	*Verbal*
OntoClass	OntoClass Aktionsart

WordNet for semantic annotation

- In particular, OntoClass feature relies on Open Multilingual Wordnet Topics (Lexicographer files, Super-senses) as annotation scheme

➢ Top nodes in Princeton WordNet's hierarchy → n. classes: 26 (nouns), 15 (verbs)



- **Why WordNet Topics?**
  - It provides ItCon with an annotation scheme that is cross-linguistically interoperable and a shared standard
  - WordNet's hierarchical structure allows for flexibility in determining the level of granularity needed case by case
  - We can easily use MultiWordNet (omw-it) as a database to access the lexnames (Topics) and apply our semantic constraints on lemmas filling the slots in the occurrences

Informal implementation pipeline

Turn conll-c *cxn X* into Grew query

Match examples with occurrences of *cxn X* in Italian Treebanks

Is OntoClass of *token Y* constrained in SEM_FEATS?

No

Manually check the examples

Yes

For each example:

Check in omw-it 1.4 for the possible synsets assigned to *token Y*'s lemma

Extract each *synset's* OMW topic (lexname)

If at least one OMW topic matches the value in OntoClass:

Annotate the example as an instance of *cxn X*

Else:

Annotate the example as false positive

Manually check the examples

data and code
for the analysis

Back to light verbs cxns

- We tested this procedure on *fare* NOUN occurrences (n = 426) from Italian Treebanks available in Grew

Results:

- 71 occurrences were tagged as instances of [*fare* $N_{feeling}$] (16,7% of the original sample)

Real labels

Annotated labels	cxn	not_cxn
cxn	54	17
not_cxn	2	353

- The overall **accuracy** of the annotation is quite high (95,5%)
- **Precision** is a bit lower (76%): some lemmas can have an emotion-related secundary meaning (e.g., *fuoco* 'fire', *fede* 'faith'). The generative power of the formalization is overall (but not totally) constrained → manual check is needed
- By manually checking only the examples tagged as cxns, only two potential examples are lost (the 'repulsion' sense of *impressione* is not annotated in omw-it 1.4)

Future perspectives

- To what extent can we exploit this method? Two questions:

    1. Does this method perform equally well on different types of constructions? **Work in progress…**
    2. Are there enough lemmas in MWN to annotate most (if not all) of the lexical items our reference corpora?

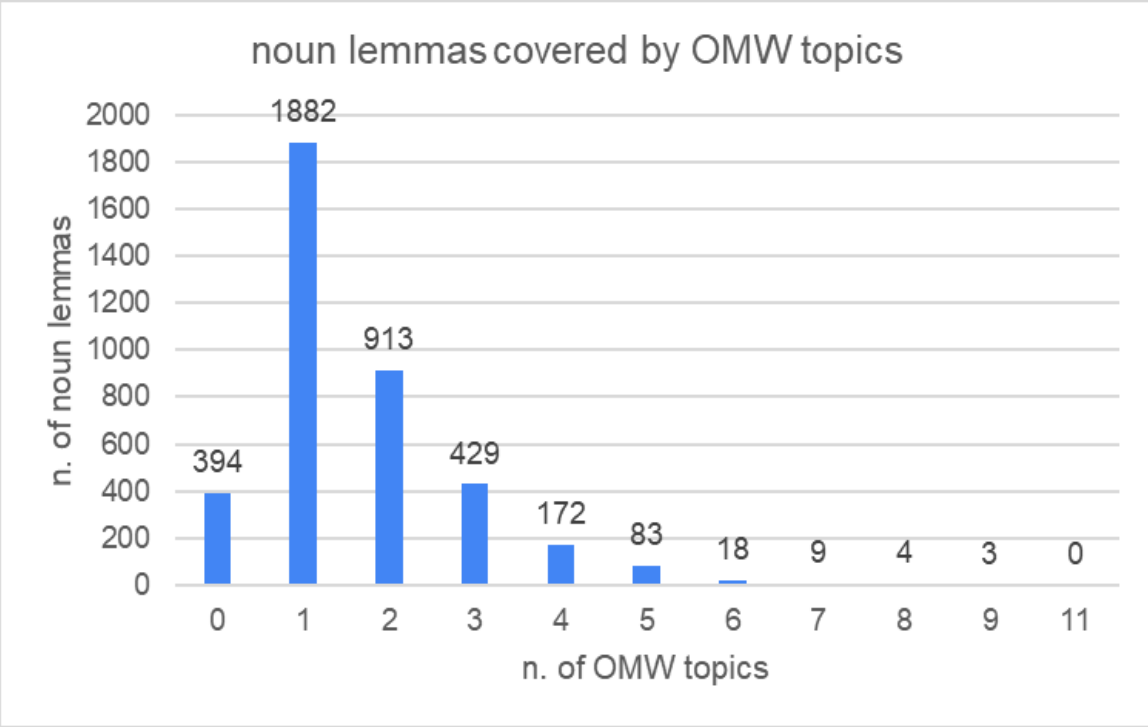
- We tried to answer the second one by assessing the coverage of Italian Treebanks lexicon in MultiWordNet

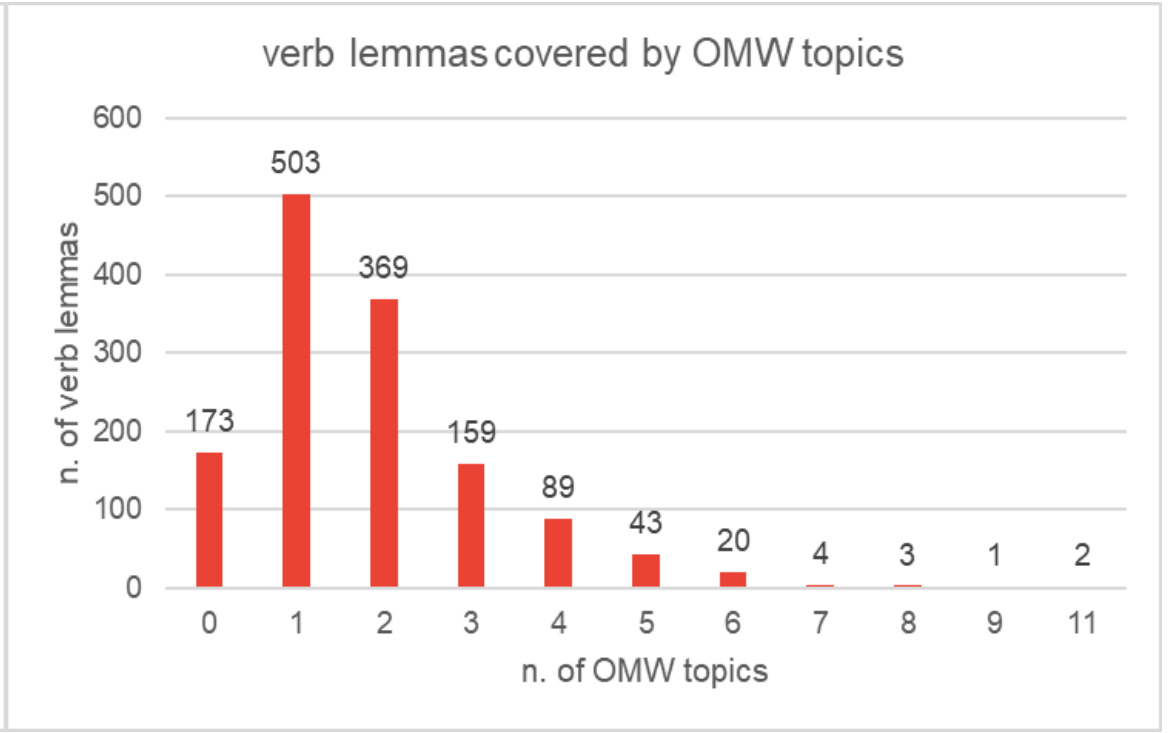
    → We extracted all the nominal and verbal lemmas and counted all the OMW topics (lexnames) of their synsets in omw-it 1.4 (accessed via nltk)

    - How many lemmas and tokens are not (Super)sense-tagged?

MultiWordNet: Italian Treebanks coverage

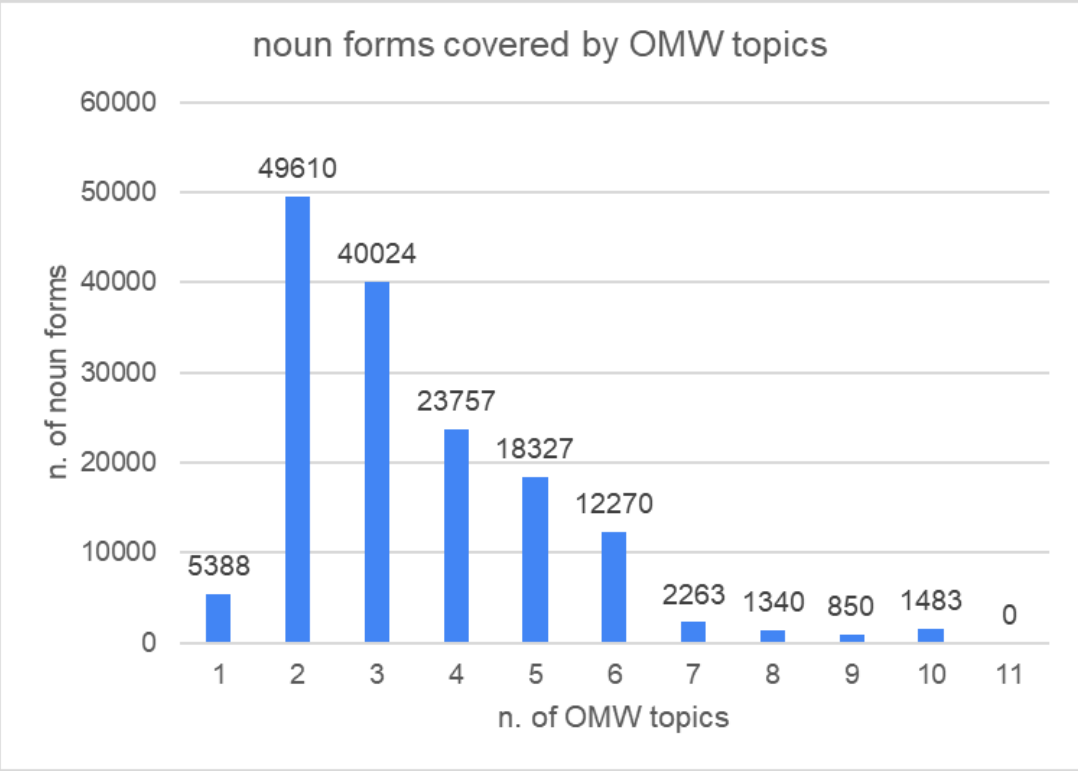
- Percentage of types (lemmas) left untagged: 10% (nouns), 12.7% (verbs)

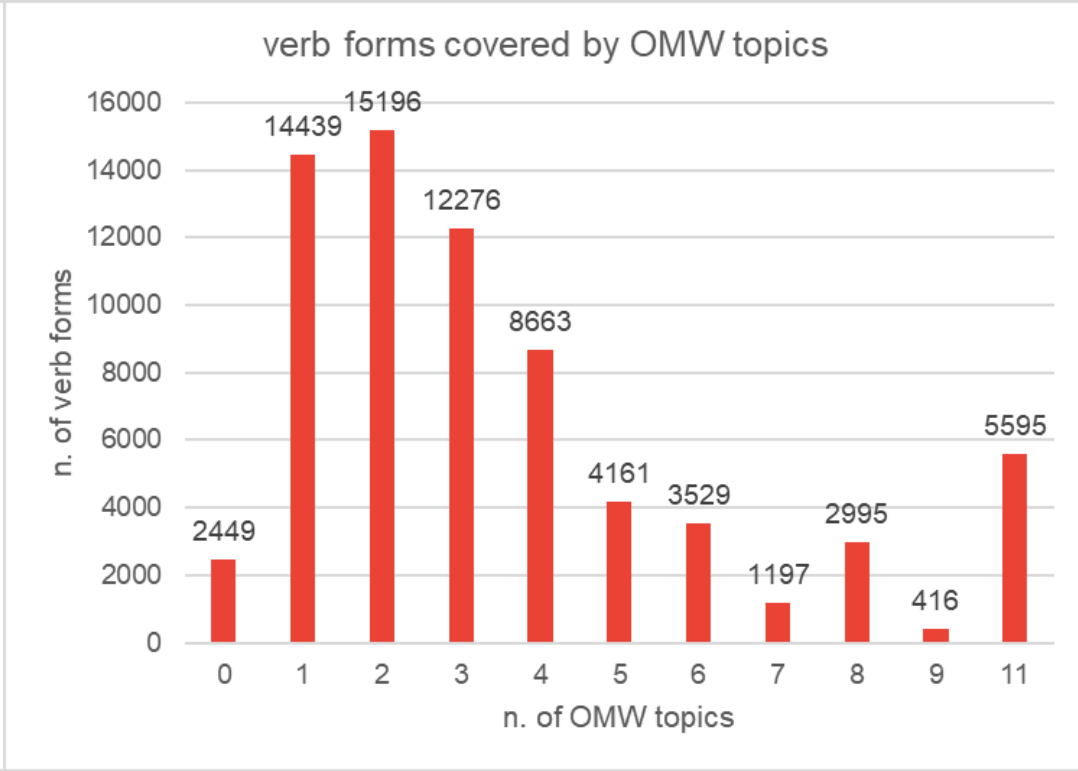




MultiWordNet: Italian Treebanks coverage

- The % of untagged tokens (forms) is even lower: 3.5% (both nouns and verbs)





Conclusions



Conclusions

- WordNet database, though incomplete, proves to be an important resource for semantic annotation of constructions
- In particular, it allows to express deeper insights (also provided by the fine-grained annotation) from the descriptive point of view, and can be exploited to semi-automatically constrain our formalization

At the inter-linguistic level…

- As far as we know, ItCon is the only Constructicon that annotates semantic constraints, and the only one that makes use of WordNet

→ We hope this practice will be considered and tested more widely in Constructicography

At the intra-linguistic level…

- We hope that ItCon will foster further integration between resources on Italian



The AdoC team



Adopt a Construction

Thank you for your attention!

Comments, suggestions, and **adoptions** are welcome!