Families of light verb constructions – A corpus study on German *stehen unter*-LVCs

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Aim

Presenting the results of a corpus study on German light verb constructions (LVCs).

(i.) Annotation procedure

(ii.) Corpus-based exploration of 'LVC-families'

A (complete) list of the data discussed in this talk is available at:
`https://osf.io/6zs5q/?view_only=e72cfb5a421f4d32b23fa8b295cc7b16`

Light verb constructions

Light verb constructions are complex predicates consisting of a semantically light verb and a phrasal element.

The verb is semantically 'light' compared to its 'heavy' use:

(1) a. *Der Verdächtige steht unter dem Dach.*
the suspect stands under the roof
'The suspect is standing under the roof.'

b. *Der Verdächtige steht unter Beobachtung.*
the suspect stands under observation
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The main predicational content is contributed by the phrasal element.

(2) a. *Der Verdächtige steht unter dem Baum.*
the suspect stands under the tree
'The suspect is standing under the tree.'

b. *Der Verdächtige steht unter Schock.*
the suspect stands under shock
'The suspect is shocked.'

LVC-families

(3) Light verb constructions form a family if (i) they only show variance with respect to their NP element, and (ii) they exemplify the same interpretational pattern.

(Fleischhauer 2019, 5, Fleischhauer 2021, 64)

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(4) a. *unter Beobachtung stehen*
'be under observation'
b. *unter Verdacht stehen*
'be under suspicion'

(5) a. *unter Schock stehen*
'be shocked'
b. *unter Stress stehen*
'be stressed'

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Background

- German reference corpus (DeReKo)
- search criterion: '&stehen \s0 unter'
- 80255 hits; 8023 randomly collected sentences manually annotated (55 sentences excluded)

(6) *Steht* [*der Verdächtige*] *unter Beobachtung?*
'Is the suspect under observation?'

Annotation: 1. step

Is the *unter*-PP complement of *stehen* or not?

Criterion: Is it possible to leave out the PP without affecting the grammaticality of the sentence?

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PP complement	PP not complement
5822	2146

Table: Results of the first annotation step.

Annotation: 2. step

2. step: Is *stehen* used as a heavy or a light verb? (only checked for those sentences which realize *unter* as the complement of *stehen*)

Criterion: Can *stehen* by substituted by some other posture verb (e.g. *sitzen* 'to sit', *liegen* 'to lie') or by a general location verb (e.g. *lokalisiert/positioniert sein* 'to be located/positioned)?

(7) a. *Der Mann steht/liegt/sitzt unter dem Dach.*
the man stands/lies/sits under the roof
'The man is standing/sitting/lying under the roof.'

b. *Der Mann steht/*liegt/*sitzt unter Schock.*
the man stands/sits/lies under shock
'The man is in a state of shock/is shocked.'

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heavy use	light use
562	5260

Table: Results of the second annotation step.

Annotation: 3. step

Identification of LVCs-families.

Criterion: paraphrase

event passive paraphrase	state passive paraphrase
1335	1524

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Table: Results of the third annotation step.

	event passive-family	state passive-family
noun types	33	19

Table: Number of noun types identified within the two LVC families.

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Assumption: PP-internal nouns denotes some type of eventuality, i.e. event or state (e.g. von Polenz, 1963, 1987; Engelen, 1968; Persson, 1994; Helbig, 1984, 2006; Langer, 2004, 2005; Ježek, 2016; Savary et al., 2018).

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Criterion: Eventuality-denoting nouns accept temporal (e.g. *gestern* 'yesterday') and aspectual modifiers (e.g. *andauernd* 'continuous') (Fábregas & Marín, 2012; Fleischhauer & Neisani, 2020).

(8) a. *die gestrige Explosion*
the yesterday's explosion
'yesterday's explosion'

b. *der gestrige Schock*
the yesterday's shock
'yesterday's shock'

c. #*das gestrige Auto*
the yesterday's car
'yesterday's car' (acceptable if interpreted as 'the car I **saw** yesterday', 'the car that **drove by** yesterday', ...)

Non-eventive nouns within the sample

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event passive-family:

(9) *Fuchtel* 'sword' , *Fittiche* 'wing' (10)
→ metaphorically interpreted as 'control'

(10) *Das Vokalensemble wurde 1998 als Projektchor zur 30-Jahr-Feier des Gemischten Chores Weitersborn – unter dessen Fittichen er heute noch steht – aus der Taufe gehoben.*
'The vocal ensemble has been established in 1998 as a project choir for the 30-year anniversary of the mixed choir Weitersborn, under whose control he still is.'
(RHZ06/OKT.21126 Rhein-Zeitung, 23.10.2006; "Makkaroni" servierte schmackhaftes Musikmenü)

Non-eventive nouns within the sample II

state passive-family:

(11) *Alkohol* 'alcohol' (12), *Beruhigungsmittel* 'sedative', *Drogen* 'drugs', *Medikamente* 'medicine', *Suchtmittel* 'addictive substances'

(12) *Bei der Kontrolle des 36jährigen Fahrers stellten die Beamten fest, dass dieser erheblich unter Alkohol stand.*
'During a traffic check of a 36 year old male car driver the officers found out that he significantly stood under the influence of alcohol.' (RHZ06/FEB.11722 Rhein-Zeitung, 13.02.2006; Führerscheine sichergestellt)

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→ The nouns in (11) trigger the inference of a state (*Einfluss* 'influence').

Events vs. States

Criterion: Event-denoting nouns can be realized as the object argument of *beenden* 'finish/stop', state-denoting ones cannot (Fábregas & Marín, 2012)

(13) a. *Die Polizei beendete die Beobachtung.*
the police finished the observation
'The police finished the observation.'

b. #*Der Arzt beendete den Schock.*
the doctor finished the shock

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→ The PP-internal eventive nouns of the event passive-family denote events, those of the state passive-family denote states.

- Do the members of the two LVC-families show a systematic difference in the (semantic) type of their PP-internal nouns? – Yes!

Further evidence

Choice of causative light verb: Which causative light verb is chosen?

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Expectation: The LVCs of the two families are form causative LVCs by using the light verb *stellen* 'put' (causative form of *stehen* 'stand').

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Expectation: The LVCs of the two families are form causative LVCs by using the light verb *stellen* 'put' (causative form of *stehen* 'stand').

Results: LVCs of the event passive-family prefer *stellen* as a causative light verb; LVCs of the state passive-family prefer *setzen* 'put' (causative version of *sitzen* 'sit').

	setzen	*stellen*		*setzen*	*stellen*
Aufsicht 'supervision'	0	244	*Kontrolle* 'control'	—	199
Beobachtung 'observation'	4	201	*Schutz* 'protection'	0	2179
Kommando 'command'	—	35	*Verdacht* 'suspicion'	4	142
Fittich 'wing'	0	19	*Strafe* 'penalty'	26	995

Table: Frequency of the choice of *stellen* vs. *setzen* as causative light verb; LVCs of the event-passive family.

	setzen	*stellen*		*setzen*	*stellen*
Alkohol 'alcohol'	12	0	*Schock* 'shock'	7	1
Drogen 'drugs'	61	2	*Spannung* 'suspense/ tension'	81	2
Druck 'pressure'	994	8	*Stress* 'stress'	244	1

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Summary

Family	**Paraphrase**	**semantic Typ of N**	**causative LV**
event passive-family	'participle + *werden*'	event-denoting	*stellen*
state passive-family	'participle + *sein*'	state-denoting	*setzen*

Conclusion I

i. Is it possible identifying further *stehen unter*-families within the data?

ii. Extending the analysis to other combination of *stehen* + Preposition but also to other light verbs (e. g., *kommen* 'come', *bringen* 'bring', *nehmen* 'take').

iii. Are LVC-families attested in other languages as well?

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(14) *Das Kinderturnen stand unter dem Motto "Max und*
the children.gymnastic stands under the motto Max and
Moritz".
Moritz
'The children's gymnastics have as their motto 'Max and Moritz'.'
(A98/JAN.01801 St. Galler Tagblatt, 12.01.1998, Ressort: RT-ORT (Abk.); Dorffeststimmung auf die Bühne gezaubert)

Conclusion II

(15) *Ze bleef evenwel verdachte en* ***stond onder observatie***.
they remained however suspicious and stood under observation
'However, they remained suspicious and were under observation.'
(https://sr-rs.facebook.com/groups/HDPopen/permalink/3606340222727659/; 04.05.2021)

(16) *Meer dan 70% van de Russische bevolking* ***staat onder stress***
more than 70% of the Russian population stands under stress
'More than 70% of the Russian population is stressed'
(https://www.gva.be/cnt/oid310967; 05.05.2021)

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Thank you very much for your attention!

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