

# Syntactic properties of Norwegian verbal MWEs (WG1)

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In this poster we show how a set of 859 Norwegian verbal MWEs distribute over syntactic subtypes. The expressions have been selected on the basis of non-compositionality, and include both idioms and support verb constructions.

Haugereid (2014) identified four main types of verbal MWEs in NorGram, an LFG grammar for Norwegian. The types reflect two structural aspects of the MWEs: their *transitivity*, i.e. the semantic (free) arguments they take, and the *syntactic pattern*, i.e. the selected (fixed) components of the MWE. The 56 MWEs in NorGram are either intransitive, requiring a free subject, or transitive, additionally requiring a free object (Table 1). In the table, free objects are represented with the symbol 'X'.<sup>1</sup>

Table 1	Intransitive		Transitive
VN	<b>gå konkurs</b> go bankrupt, <i>go bankrupt</i>	VNPx	<b>legge skjul på x</b> lay shelter on x, <i>make a secret of x</i>
VP	<b>løfte i flokk</b> lift in herd, <i>pull together</i>	VXP	<b>bringe X på bane</b> bring X on court, <i>bring up X</i>

Table 1: Types of verbal MWEs in NorGram

The MWE types in the larger material are presented in Tables 2-5. The four types in Table 1 are the most frequent also in our material (cf. the top rows in Tables 2 and 3). In addition to these patterns we found 6 new intransitive patterns and 8 new transitive patterns.<sup>2</sup> With respect to subcategorizational properties, the transitive MWEs can be grouped into three categories: transitives with free subject and free object (Table 3), transitives with free subject and two free objects (Table 4), and transitives with selected subject and free object (Table 5).

Pattern	No. of inst.	Example expression with literal and idiomatic translations
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Table 2. Intransitive, free subject		
VP	168	<b>gå på grunn</b> , go on ground, <i>run aground</i>
VN	165	<b>aksle landslagstrøya</b> , shoulder the national team shirt, <i>play on the national team</i>
VNP	75	<b>få avskjed på grått papir</b> , get departure on grey paper, <i>be sacked</i>
VNAdv	19	<b>bite tennene sammen</b> , bite the teeth together, <i>clench one's teeth</i>
VAdvP	14	<b>få tilbake med samme mynt</b> , get back with same coin, <i>be retaliated</i>
VAdv	13	<b>gå galt</b> , go wrong, <i>go wrong</i>
VPP	4	<b>gå fra asken til ilden</b> , go from the ash to the fire, <i>go from bad to worse</i>
VPN	2	<b>slå i hjel tiden</b> , beat to death time, <i>kill time</i>
Misc.	27	Unclassified MWEs

<sup>1</sup> For simplicity, only the object is included in the patterns and MWE examples. Upper-case 'X' represents a non-oblique complement and lower-case 'x' is oblique.

<sup>2</sup> The category "Misc." in Tables 2 and 3 are MWEs that do not match any of these patterns. The expressions realize various patterns with genitive constructions, reflexive pronouns, verb conjuncts, etc.

<b>VNP<sub>x</sub></b>	145	<b>blåse nytt liv i x</b> , blow new life in x, <i>revive X</i>
<b>VXP</b>	93	<b>binde X på hender og føtter</b> , bind X on hands and feet, <i>restrict X, hamper X</i>
<b>VXN</b>	29	<b>blåse X en lang marsj</b> , blow X a long march, <i>ignore X, neglect X</i>
<b>VXAdv</b>	26	<b>blåse X overende</b> , blow X on its side, <i>blow X over</i>
<b>VPP<sub>x</sub></b>	23	<b>falle i hendene på x</b> , fall in hands on x, <i>be captured by x</i>
<b>VAdvP<sub>x</sub></b>	11	<b>brenne inne med x</b> , burn in with x, <i>not get an outlet for x</i>
<b>VNAdvP<sub>x</sub></b>	8	<b>dreie hodet rundt på x</b> , twist the head around on x, <i>make X fall in love with &lt;SUBJ&gt;</i>
<b>VNPP<sub>x</sub></b>	5	<b>legge ordene i munnen på x</b> , put the words in the mouth of x, <i>put words in x's mouth</i>
<b>Misc.</b>	26	Unclassified MWEs

<b>VXAdvP<sub>x</sub></b>	1	<b>få X inn i hodet på x</b> , get X inside of the head of x, <i>get something into x's head</i>
<b>VXNP<sub>x</sub></b>	1	<b>stille X ansikt til ansikt med Y</b> , place X face to face with Y, <i>make X meet Y face to face, make X face Y</i>

<b>NVX</b>	4	<b>lykken smiler til x</b> , fortune smiles to x, <i>fortune smiles on x</i>
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Tables 2-5: Types of verbal MWEs in a larger data set

The grouping of MWEs according to syntactic pattern reflects the high-level constituency of the MWE, and does not take into account complements such as determiners and modifiers in noun phrases or prepositional objects unless these are semantic arguments to the MWE (e.g. 'x' in the transitive pattern VNP<sub>x</sub>). Thus, the pattern VNP applies to all MWEs where a verb selects a noun phrase (represented by 'N') and a prepositional phrase (represented by 'P'). As a result, there is considerable "local" variation within each pattern. The following MWEs are all instances of VNP:

[V få] [N avskjed] [P på grått papir] get departure on grey paper, *be sacked*

[V få] [N blod] [P på tann] get blood on tooth, *taste blood*

[V ha] [N en finger] [P med i spillet] have a finger with in the game, *have a finger in the pie*

[V ha] [N mange jern] [P i ilden] have many irons in the fire, *have many irons in the fire*

A more fine-grained classification may be useful for purposes such as MWE extraction and the analysis of syntactically flexible MWEs. It is perhaps less relevant for the analysis of semi-fixed MWEs, since non-verbal components of semi-fixed verbal MWEs are by definition invariable and do not always motivate internal analysis.<sup>3</sup> We present some tests for distinguishing between the semi-fixed and flexible MWEs in our material, and show how certain tests work better for specific syntactic subtypes. At a later stage we will consider a further classification with more granular syntactic patterns.

## References

Baldwin, T. and Kim, S. (2010). *Multiword Expressions*. In Indurkha, N. and Damerau, J.: Handbook of Natural Language Processing. Second edition. Boca Raton, FL.

Haugereid, P. (2014). *VP idioms in Norwegian: A subconstructional approach*. The PARSEME Workshop on MWEs in Frankfurt, 8-9 September 2014.

<sup>3</sup> See Baldwin and Kim (2010) for a definition of the terms *semi-fixed* and *syntactically flexible*.