

- (17) a. Auch wenn Fred das hätte₁ wissen₃ müssen₂,
 even if Fred this had know must
 'even if Fred should have known this'
- b. *Auch wenn er gestern in der Vorlesung ist₁ gesehen₃ worden₂,
 even if he yesterday in the lecture is seen been
 'Even if he has been seen in the lecture yesterday'

Neither of these restrictions holds for non-standard varieties of German: Upper German dialects provide ample evidence for both descending and ascending verb orders, even if the verb cluster includes only two verbs (Dubenion-Smith 2010). Likewise historical stages of German witness a wide variety of word orders regardless of the number of verbs appearing in final position and independent of the nature of the auxiliary (Ebert 1981; Härd 1981; Sapp 2011). The Early New High German examples in (18) render attestations for a two-place verbal complex with *haben* preceding a past participle and a three-place verbal complex with the auxiliary verb *sein* preceding two past participles. Both patterns are ruled out in the standard varieties of Present-day German.

- (18) a. uns ist ein Abentüer widerfaren underwegen, daz uns ein Wolff
 us is an adventure happened on the way that us a wolf
 vil Leids hat₁ gethon₂ (Ulenspiegel 226.4)
 much harm has done
 'An adventure happened to us on the way: a wolf has done much harm to us.'
- b. so schreibt man auch aus Holl. das newlich in Frießlandt ein
 so writes one also from Holland that recently in Friesland a
 fewriger fliegender Trach sey₁ gesehen₃ worden₂ (Aviso 35.14)
 fiery flying dragon were seen been
 'News come from the Netherlands that a fiery flying dragon has been seen in Friesland.'

The restrictions effective in Present-day German arise in a two-step process: The order V_2V_1 becomes fixed with two-place verbal complexes throughout the 16th century, while it took about a hundred more years for the order $V_3V_2V_1$ to become the canonical order for three-place verbal complexes (Ebert 1981; Härd 1981; Sapp 2011).

How is this change modeled in a representational framework such as HPSG? Auxiliary verbs and their verbal complements as given in (16) through (18) are

supposed to build verb clusters with the arguments of the respective verbal complement being attracted by the auxiliary (Hinrichs & Nakazawa 1994; Pollard 1994; Kathol 2000; Müller 2002; 2008).⁷ Accordingly, the structure of a verb cluster exemplifying the canonical descending order can be represented as in the passive verb cluster *dass sie die Fäden gezogen bekam* 'that she had removed the stitches':

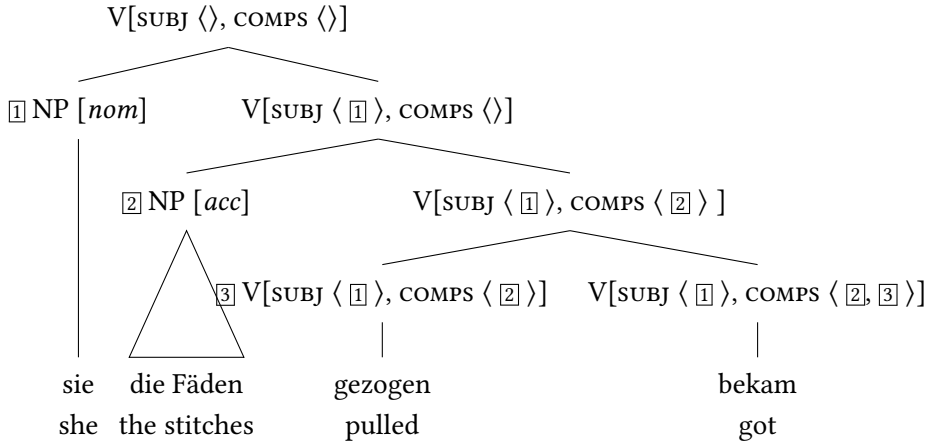


Figure 1: Passive verb cluster in *dass sie die Fäden gezogen₂ bekam₁*

The variation regarding the order of auxiliary and lexical verb in verb clusters is currently addressed from two perspectives: (i) non-canonical patterns of three-place verb clusters in Present-day German as in (17a) which figure under the notion of *Oberfeldbildung* since Bech (1955), and (ii) the canonical order in Dutch verb clusters which is ascending instead of descending, i.e. $V_1V_2V_3$. Building on previous proposals, one way to account for the word order change affecting the verbal complex in the history of German would include the assumption of an appropriate head feature as advocated by Hinrichs & Nakazawa (1994). They emphasize that a lexical approach to the word order within the verb cluster would account also for the variation on the level of individual speakers.

Recent work suggests the head feature *GOVR* which indicates the direction of government of non-finite verbs and was proposed to capture synchronic variation in German and Dutch (Bouma & van Noord 1996; Kathol 2000; Augustinus

⁷Abeillé & Godard (2002) argue that verbal complements of auxiliary verbs in French are part of a flat VP when the auxiliary conveys tense information, while the passive auxiliary *être* 'be' takes a VP complement.