The syncretism and distinct lexical semantics of auxiliaries

1. Introduction. German forms its adjectival passives (AdjPs) with be (sein) + past participle (pp), (1a.i), and its verbal passives (VerPs) with become (werden) + pp, (la.ii). Verbal perfect passives (VerPPs) consist of a finite form of be, a participial form of *become*, and a pp, (1b).

/ (ii) wird b. Die (I) a. *Die Post* (i) ist geöffnet. Post ist geöffnet worden. The The post is becomes opened.ptcp post is opened.ptcp became.ptcp Kratzer (2000) divides APs into target state (TS) and resultant state (RS) variants, distinguished by the compatibility of the former but not the latter with the adverb still (immer noch), i.e. (2a/b), repeated from Kratzer (2000: 1-2). Note that Kratzer also shows that TSs and RSs both have lexical and phrasal variants, of which only the latter will be considered here. (2) a. Das Gebäude ist immer noch geräumt. b. Die Gäste sind (* immer noch) begrüsst.

The building is still evacuated.ptcp The guests are (* still) greeted.ptcp An old hypothesis that certain APs are derived from VerPPs (i.e. (1b) \rightarrow (1a.i)) by ellipsis of *became* (*worden*) (e.g. Lenz 1993) is rejected by numerous subsequent accounts (e.g. Rapp 1998, Kratzer 2000). Evidence for the latter stance is the restricted modification in both RSs and TSs (see section 2). Nevertheless, Kratzer argues that RSs, but not TSs, have perfect aspect. Evidence for this is the unambiguous perfect auxiliary have in their English correlates, i.e. (3) cf. (2b).

The guests have been greeted. (3)

(Kratzer 2000: 3)

Here, we propose a middle ground between the two stances, namely that RSs and VerPPs are distinct types of perfect, resulting from lexically semantically distinct and syncretic auxiliaries.

2. RSs and VerPPs as distinct types of perfect. The cross-linguistic literature (e.g. Comrie 1976, Grønn et al. 2017) distinguishes various different types of perfect. German and English both have perfects-of-result (PoRs; \approx present state resulting from an instantiated event) and experiential perfects (EPs; \approx potential plurality of events in time span up to present) (e.g. Grønn et al. 2017: 4-5, 3-4). Both of these perfects are temporally present. In addition, we assume German has what we will term a true past perfect (<u>TPP</u>) equivalent in meaning to an English simple past (e.g. Löbner 2002). This is diagnosed by the acceptability of deictic past tense adverbs like yesterday, i.e. the lack of Klein's (1992) present perfect puzzle. Building on Kratzer, we argue that RSs are PoRs and VerPPs are ambiguous between an EP and a TPP. More specifically, we show that it is precisely in their restricted modification that RSs parallel active PoRs. Firstly, manner adverbs, instrumentals, and spatial modifiers are ruled out both in RSs (e.g. Rapp 1998: 246-7; Gehrke 2015: 902), (4a), and in active PoRs (Mittwoch 2008: 328-330), (4b), unless they relate to the state. Secondly, whilst the external argument is clearly expressed in active PoRs, this cannot be focused (Mittwoch 2008: 238-9), (5), paralleling the restricted availability of by phrases in RSs (e.g. Gehrke 2015: 903-906). Thirdly, the lack of deictic past tense adverbs in RSs (e.g. Rapp 1998: 236), (6), follows straightforwardly if they are temporally present PoRs. (4) a. Der Brief ist *langsam | mit roter Tinte geschrieben. (Rapp 1998: 257)

with red ink written.ptcp The letter is slowly

b. You've corrected the proofs #too slowly / with red ink.

#It's JOHN that has broken your cup. (5)

weil (6) der König vor einem Jahr besiegt *(*worden*)

before a because the king year defeated.ptcp became.ptcp is (Rapp 1998: 236) Instead, the availability of these adverbs in VerPPs is evidence that there is a TPP-type of these. Finally, the EP-type of VerPP are distinguished from PoRs by the possibility of quantificational adverbs like twice (zweimal) (Mittwoch 2008: 326). The latter are also possible in TPPs, (7a), but EPs differ in also allowing these with present tense adverbs like *now* (jetzt), (7b). (7) Die Geisslein sind zweimal versteckt *(worden). (a) gestern 1 (b) *jetzt* The little.goats are yesterday twice hidden.ptcp now became.ptcp

Accordingly, we show that RSs are PoRs and that VerPPs are ambiguous between a TPP- and an EP-type. Note that we leave the integration of other types of perfect - the Universal perfect (e.g. Grønn et al. 2017: 5-8) and the perfect of recent past (e.g. Comrie 1976: 60-1) - to future research.

3. The distinct lexical semantics of auxiliaries. Previous syntactic accounts of AdjP and Ver(P)Ps typically attribute their different properties to the structure of their pps. For example, Alexiadou et al. (2014: 132) propose that the pps in German/English AdjP and VerPs have the same internal structure as each other, but for distinct PASS_{ADJ} and PASS_{VERBAL} heads. These distinct PASS heads account for the relevant properties but must be independently assumed. Instead, following Lundquist (2008), we propose

(adapted from Mittwoch 2008: 329)

(Mittwoch 2008: 239)

- - ist

that AdjP and Ver(P)P pps in at least German and English are structurally fully identical and that their distinct properties result from their auxiliaries' distinct lexical semantics. We implement this by adopting Wurmbrand (2001), including the clause structure in (8).

> > v/AspP > VP (8) AuxP ModP (Wurmbrand 2001: 144) Following Wurmbrand on Ver(P)Ps, we propose that, in both AdjPs and Ver(P)Ps, pps lexicalize V and their auxiliaries minimally lexicalize v/Asp (cf. section 4). More broadly, Wurmbrand's account also provides a basis for the role of lexical semantics of the auxiliaries in these constructions: modals (i.e. other (semi-)functional items) like müssen 'must' have one lexical semantics but different interpretations, determined by the syntactic position which they lexicalize, e.g. *müssen* is interpreted as epistemic when it lexicalizes Aux but as deontic when it lexicalizes Mod (Wurmbrand 2001: 182-205). Here, we further argue that the lexical semantics of Ver(P)P auxiliaries is [-perf(ective)] (\approx inherent state/characteristic) and that of AdjP auxiliaries is [+perf(ective)] (\approx non-inherent state/characteristic): the respective semantics of lexical guises of be/have like (9a/b) ([perf]) and (9c/d) ([+perf]).

(9) a. John is tall. b. John has blue eyes. c. John is happy (today). d. John has a book. In English, these two lexically homonymous bes act as auxiliaries in the relevant passives. In German, [+perf] be appears in AdjPs and we assume that there is also a [-perf] become which appears in Ver(P)Ps. More direct evidence for this distinction is from Spanish which morphologically distinguishes a [+perf] estar 'be' and a [-perf] ser 'be', which, as expected, appear in AdjPs and VerPs respectively (e.g. Gehrke et al. 2014). Similarly, we propose that PoRs involve [+perf] be/haves and EP/TPPs involve [-perf] be/haves. Initial evidence for this is languages like Icelandic which morphologically distinguish PoR and EP auxiliaries (e.g. McFadden 2007). Note finally that we are assuming no distinction between lexical and functional items (e.g. Lundquist 2008). Thus, the same bes appear in lexical guises like (9) as in the so-called auxiliary uses but lexicalize V rather than the relevant (semi-)functional projections.

4. The syncretism of auxiliaries. Firstly, adopting Wall (2018), we argue that, in Wurmbrand's (8), *temporally present* perfect auxiliaries (*here:* those in PoRs and EPs) lexicalize Mod and *temporally past* ones (*here:* those in TPPs) lexicalize Aux. Secondly, we adopt a Nanosyntactic lexicalization approach (e.g. Starke 2010), including late insertion, spell-out of non-terminal nodes, the Superset Principle (e.g. Starke 2010: 2-3), and the *Maximise span* competition principle (e.g. Pantcheva 2010), (10).

(10) Maximize span: When a given syntactic node could be spelled out by one bigger lexical item or two or more smaller lexical items, the bigger one wins. (Pantcheva 2010: 1061)

In the basic instantiations of AdjPs and VerPs, i.e. TSs, like (2a), and VerPs like (1a.ii), the relevant passive auxiliary lexicalizes v/Asp. The EP- and TPP-types of VerPP only differ from basic VerPs and each other, in that in EP-types [-perf] ist 'is' etc. lexicalizes Mod, whereas in TPP-types it lexicalizes Aux. This is in accordance with their respective temporally present and past semantics. In RSs, [+perf] ist is etc. lexicalizes both v/Asp and Mod. This is possible as (i) [+perf] ist in German is a perfect auxiliary, as independently evidenced in active PoRs, and (ii) due to (10), as *ist* on its own supersedes any conceivable pair of smaller competitors. In contrast, English [+perf] be can lexicalize v/Asp but cannot lexicalize Mod, i.e. only have not be is a perfect auxiliary in English. As a consequence, in English RSs like (3), (10) cannot apply and v/Asp and Mod are lexicalized separately by been and has etc. What we are thus assuming, is that the lexical entries for e.g. [-/+perf] ist in German are syncretic: they carry the morphosyntactic features required to lexicalize multiple syntactic heads. Further, it is given the Superset Principle that, for instance, the relevant be in German TSs, EPs and TPPs can lexicalize only a subset of the functional features it must be specified for, but moreover that we can assume that the very same be appears in lexical guises lexicalizing V like (9a/c). This would not be possible in a Distributed Morphology-type approach which assumes the Subset Principle (e.g. Harley et al. 1999: 5), which requires underspecification rather than this overspecification of lexical items. 5. Conclusion. Our proposal that passive and perfect auxiliaries are lexically semantically distinct and syncretic captures the various distinctly behaving AdjPs and Ver(P)Ps in German, as well as English. Moreover, it provides considerable support to a Nanosyntactic lexicalization approach.

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