Forthcoming 2013/14. Persistence phenomena in the evolution of constructions. In: Christian Lehmann, Christian Marschke and Stavros Skopeteas (eds.), Evolution of Syntactic Relations. Berlin – New York: Mouton de Gruyter. (Trends in Linguistics Series).

(Ursprünglich: Akten der DGfS Jahrestagung. Sektion: Evolution of Syntactic Relations. Christian Lehmann und Stavros Skopeteas. Mainz 2004)

Preprint © Hackstein, Olav. Lehrstuhl für Historische und Indogermanische Sprachwissenschaft. LMU München 2012.

Persistence phenomena in the evolution of constructions[1]

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Linguistic change is not confined to replacement processes; it frequently involves the persistence of inherited features alongside innovative features. Synchronically, the coexistence of linguistic features of different time-depths results. The present paper explores the synchronic status of persistent features in grammar, and the degrees to which persistent properties of constructions may be integrated into synchronic grammar, e.g. the English *ought-to* construction, which despite the morphological freezing of *ought* remains fully productive and shows syntactic persistence in lacking *do*-support of negated *oughtn't to*, or the German compound adverbs in *–maßen*, which are morphologically obsolete yet continue to require the preceding adjective to be suffixed by {er}. The degree of synchronic integration of persistent features may vary from low to high. In contrast to the previous focus of (reconstruction-oriented) historical linguistics on archaic and obsolete features of language, the present article demonstrates language's potential to project inherited constructional parameters into synchronic grammar.

1. Persistence of constructional parameters

The synchonic grammar of a natural language does not always allow us to draw a strict line between its synchrony and its diachrony. To begin with, natural language exhibits synchronic variation at all grammatical levels. Typically, synchronic variation involves the coexistence of inherited and innovative forms (even within the same register), so that on the surface we find the coexistence of forms and patterns of differing time depths. Crucially, the archaism of particular forms and patterns does not prevent them from being fully integrated components of synchronic grammar.

The same overlap between synchrony and diachrony obtains when we look at the evolution and grammaticalization of constructions. Grammaticalization is commonly defined (in canonical cases) as change involving a shift from lexical meaning to grammatical function; or as a

process that augments the functional load of a form or a multi-word structure.[2] Nonetheless, it has long been known that the transition between source-structure and target-structure is hardly ever completely even, such that each and every grammatical parameter of the source structure undergoes diachronic change (at the same rate). Instead, it is both natural and common for languages to be selective and change some parameters while preserving others, with the result that the unchanged parameters persist into the target structure. Persistence is the continuation of a particular constructional parameter of a source construction into its synchronic target-construction (cf. Hopper and Traugott 2003: 3). As a result persistence stands in contrast to obsolescence, and persistent parameters of language in contrast to obsolete parameters, which have ceased to be active components of synchronic grammar.

The present article defines the impact of such developments on synchronic grammar in Indo-European languages and examines the persistence of constructional parameters in the evolution of constructions. Most insightful here are formal or lexically-open idioms (as defined and studied by Fillmore et al. 1988: 505ff.), which show the integration of persistent structures into synchronic grammar. The attested history of the Indo-European languages offers instructive case studies of the phenomenon of persistence in multi-word structures, ranging from subphrasal, phrasal, and clausal constituents to textual structures (Hackstein 2004a, 2004b).

At the noun-phrase level, for example, genitive-noun NPs yield prepositional-phrase constructions, as seen in (1).

(1) Diachronic succession of source and innovative construction[3]
   a. PIE, source construction: noun phrase
      **deywósyo* *h₂énti*
      god.GEN.SG front.LOC.SG
      'in front of the celestial (being)'
   b. Cretan Greek, innovative construction: prepositional phrase
      antì *maitúro:n*
      before witness.GEN.PL
      'in front of witnesses' (Schwyzer 1950: 443)

In (1), despite the diachronic transition from a noun phrase to a prepositional phrase, the genitive case governed by the head noun in the source construction persists into the prepositional target construction as the case stipulated by the Greek preposition *antí*. (Note that in the given

example the persistence of case is purely formal and does not include the case function, which changes from a semantic case (possessor) in (1a) to a grammatical case (governed by the preposition) in (1b).)

Typologically comparable to (1) are cases of adjective-noun NPs in which the head noun of an NP undergoes grammaticalization to a suffixoid, while leaving the (originally) mandatory inflection of the dependent adjective intact. This pathway of development explains German compound adverbials of the type exemplified in (2):

(2) a. *zugegeben-er-maßen*
admitted-DAT.SG.F-measure.DAT.SG.F
'admittedly'
b. *bekannt-er-maßen*
known-DAT.SG.F-measure.DAT.SG.F
'as is known'

Historically, this word formation type arose from NPs with adjectives in {-er}, which is the strong dative-singular-feminine ending required by the dative-singular-feminine head noun *maßen* 'measure, manner'.[4] Remarkably, the word formation type X-*maßen* represents an open, expandable class, and the rule requiring the adjective to be suffixed by {-er} remained robust enough to resist obsolescence, which is all the more remarkable since univerbation of the erstwhile NP structure has long since taken place and since the morpheme {-er} has become functionally opaque.[5]

Diachronic change need not be confined to a full replacement process as in (1) and (2), whereby a construction is entirely replaced by a new, innovative one. Quite often, the replacement process remains incomplete so that some exponents of a given source construction escape the innovation and continue to coexist beside their innovative counterparts ("constructional split," cf. Hopper and Traugott 2003: 3, 49, 121f.). An example of the constructional split of a phrase-level construction is given in (3). The free collocation (3a) yields the coexisting prepositional-phrase construction in (3b), showing the passage of the free collocation into a grammatical marker in a prepositional-phrase construction (with irregular deletion of the article *the* before *light*; cf. Hackstein 2010: 60).

(3) Coexistence of source construction and innovative construction

a. source construction: noun phrase
   in the light of day
   in the lights of the city
   in the green light
b. innovative construction: prepositional phrase
   in light of these results

An example of a constructional split at the clause level is presented in Figure 1. It exhibits the co-occurrence of an inherited clause structure (German *es ist schade*) as a formal idiom alongside its innovative version (German *es ist ein Schaden*). (Throughout this article I use 'formal idiom' in the definition of Fillmore et al. 1988: 505 to denote a lexically open syntactic pattern "dedicated to semantic and pragmatic purposes not knowable from their form alone".) Figure 1 illustrates the ramification of an Early Modern German source construction into a Modern German formal idiom (A) and the linguistically renovated and rule-generated version (B) of the underlying Early Modern German construction. A and B are composed of constituents of differing time-depths. Whereas A shows persistent Early Modern German morphology in the *n*-less nominative *schade*, B exhibits the innovative nominative in *-n Schaden*.

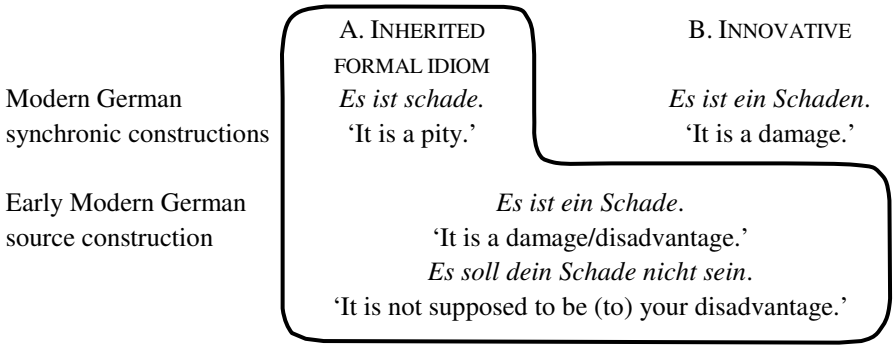

Figure 1. Co-occurrence of a formal idiom alongside its innovative version

Linguistic innovation is by its very nature selective. It affects certain constructions while sparing others, yielding the constructional split of a source construction into an inherited copy and an innovative version. However, constructional splits seldom lead to a clear-cut division between a completely inherited and a completely innovative construction. Rather, it is typical for a linguistic innovation to affect a given construction unevenly. In other words, linguistic innovation manifests itself not only in

a split between constructions but also in a split of innovative and persistent features within one and the same construction. (Cf. above in (1) the formal persistence of the genitive vis-à-vis the loss of its functional properties or in (2) the formal persistence of the case morpheme {-er} vis-à-vis its morphological opacity.)

This can further be demonstrated for the German idiom *es ist schade* 'it's a pity', which reveals a mixture of innovation and retention on closer inspection. On the one hand, *schade* shows signs of semantic and morphological innovation (semantic change 'damage' → 'pity'; incipient morphological conversion from substantive to adjective). On the other hand, the same construction exhibits persistent morphosyntactic features in its syntactic and transformational behavior. The erstwhile substantival character of *schade* is projected into synchronic grammar as the synchronic ban on *schade* in attributive use. Phrases like **der schade Mann*, **die schade Frau* are ungrammatical. Table 2 summarizes the synchronically composite nature of the German *es-ist-schade* construction, which unites persistent and innovative features.

Table 2. Developmental divergence within the same construction: selective persistence of individual features

	persistent features	innovative features	
synchronic construction *es ist schade* (*, dass*...)	exclusion from attributive use	*schade* 'a pity'	incipient conversion to adjective
source construction *es ist ein Schade.*	substantival *schade*	*Schade* 'damage'	substantive
parameters of source construction	syntax	semantics	morphology

Due to the unevenness of linguistic innovation and the resulting developmental non-homogeneities, constructions (will) vary as to the number of persistent parameters. Thus it is possible to distinguish different degrees to which inherited diachronic grammar may persist into linguistic synchrony. The gradient leading from a lesser to a greater extent of persistence can be illustrated by the three examples given in Figure 2.

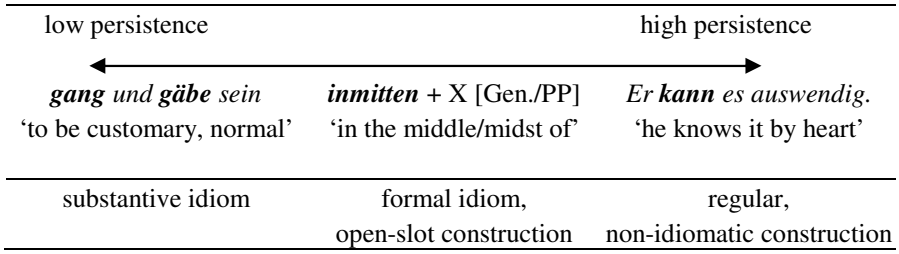

Figure 2. Degrees of overlap between synchrony and diachrony: persistence in synchronic grammar

First, constructions may embody archaic traits that in themselves show no degree of persistence. An example is the German *gang und gäbe sein* 'to be customary, normal' (see Figure 2), which is a substantive, binomial idiom consisting of the two lexically isolated and near-opaque adjectives *gang* and *gäbe* (from MHG *genge und gæbe* 'smoothly going, practicable and acceptable'). Crucially, the meaning of *gang und gäbe* cannot be compositionally calculated from the single members of the collocation, both of which are obsolete and no longer understood in isolation. Thus the idiom's meaning cannot be generated by grammatical rules, but is purely lexical.

Constructions can also take an intermediate position, displaying only partial persistence. Examples are furnished by formal idioms like the German prepositional-phrase construction *inmitten* + genitive (see Figure 2). Although the preposition *inmitten* contains the dative of *Mitte* in its obsolete and frozen dative plural form *mitten*, it continues to be synchronically associated with the Modern German noun *Mitte* (cf. Behaghel 1924: 32).

Finally, constructions can show a high degree of persistence. To take an example, in inherited phraseology German *können* may be construed with a substantival object, in which case it means 'to know, be knowledgeable about something' (see Figure 2). In a phrase like German *etwas auswendig können* 'to know something by heart' (cf. Adelung 1793–1801, s.v. *können*, GKW Bd 2, 1708 sub k), this special employment of German *können* shows the undisturbed continuation of the etymologically inherited semantics of OHG *kann* 'knows, understands, can'[6] and the diachronically underlying Indo-European root $*\hat{g}neh_3$- 'to recognize, to know' (cf. Seebold 1970: 289f.). The German example *Er kann es auswendig* 'he knows it by heart' thus exhibits persistence both of the archaic meaning of

the underlying root (cf. Chafe's notion of shadow meanings [2008: 267] and Bybee 2010: 174–176) and of its associated argument structure.

2. Case studies of feature persistence

I will proceed with case studies of constructions showing the persistence of constructional features to differing degrees, beginning with isolated constructions with a low degree of persistence, then moving on to cases with a higher degree of persistence, before finally turning to another type of persistence which does not involve any particular morphemes, but a purely syntactic structure (see Section 3).

2.1. Isolation and persistence: German *geschweige denn*

The degree of overlap between linguistic synchrony and diachrony can be fairly low if a lexical component of the construction has come to be confined to just this particular construction and if the construction has undergone many functional transformations.

An example of a formal idiom involving several transformations is the German negative polarity *geschweige denn* construction, which occurs in scalar contexts of the sort 'not X, and even less so Y'. The German construction contains a fully petrified and opaque first-person singular form of the archaic prefixal verb *ge-schweigen* 'to become tacit'.

Originally, *geschweige* occurred as a 1sg verb form 'I neglect to mention' and had full sentential value, see example (4a) below. The omission of the subject pronoun marked the transition from a verb form to a conjunction.[7] Syntactically, *geschweige* lost its sentential value and became a clause-internal constituent, see example (4b). In the course of idiomatization and pragmatic strengthening and by virtue of its telic prefix *ge-*, *geschweige* acquired the specialized meaning 'and I will definitely/all the more remain tacit about Y'; the preverb *ge-* aspectually affirms and strengthens the negative polarity of the verb *schweigen*. By implicature, the notion of increased negative polarity of the lexical verb *geschweige* is taken to imply a preceding context with negative polarity ('I definitely neglect to mention X' > 'and even less so X'). In sum, the meaning of *geschweige denn* shifted from 'not to mention', admitting positive as well as negative antecedents (4b), to 'and even less so' with a strictly negative

antecedent. The latter meaning was generalized in Modern German to become the sole function of *geschweige denn*, which entails negative polarity of the preceding phrase or clause, cf. example (4c). In sum, regardless of frozen morphology, the negative polarity of the construction, which is an integral component of the construction in contemporary German, is a transformed reflex of the old telic verbal aspect of *geschweigen*.

(4) a. *ich geschweige* 'I neglect to mention'
Der Feind setzt dir offentlich zu, und deine vermeinte Freunde beneiden heimlich dein Glück; vor deinen Untergebenen aber bist du auch nicht allerdings versichert. Ich geschweige *hier, wie dich täglich deine brennende Begierden quälen und hin und wider treiben.*
'The enemy appears to bother you, and your apparent friends secretly envy your good fortune; and you are not safe at all from your inferiors. I neglect to mention here, how you are tormented daily and driven to and fro by your burning desires.' (Grimmelshausen: Der abenteuerliche Simplicissimus Teutsch, Grimmelshausen-Werke Bd. 1, p. 112)

b. *geschweige* 'not to mention'
Denn in meinem Kopfe stecken täglich viele Händel, geschweige *Gedanken, daß ich nicht ein jegliches so behandeln und reden kann, als ob ich nichts oder nur eins oder zwei zu tun hätte.*
'For there are so many affairs in my head every day, not to mention thoughts, that I'm unable to deal with or talk about a particular thing in the way that I would be if I had nothing or only one or two things to do.' (Martin Luther: 1537, Luther-W Bd. 10, p. 266)

c. *geschweige denn* 'and even less so'
Fließend Wasser hat er nicht, geschweige denn *ein Klo.*
'He doesn't have running water, let alone a loo.' (http://www.fr-aktuell.de, 26.01.2005)

2.2. English volitional *would*

Another example of persistence in verb forms is Present-Day English *would*. The non-replacement of inherited functions by innovative functions has led to the synchronic projection of some stages of the historical development of *would*. Etymologically, English *would* represents the morphological continuation of Old English *wolde* 'wished' (cf. i, ii, and 5a below) and the cognate of German *wollte* 'wished'. Beside its innovative and productive use as an auxiliary in complex verb forms, the inherited volitional and non-auxiliary use of *would* as 'want, wish' persists in minor constructions like (i)-(iii).

(i) Negative assertive main clause with *wouldn't*, indicating strong refusal, e.g., *He wouldn't do it*. (= *did not want to do it.*)

(ii) Volitional *would-rather*-construction with infinitival or finite sentential complement, e.g., *I (woul)d rather walk than go by bus*, *I (woul)d rather you didn't breathe a word to anyone about this*, cf. Quirk et al. 1985: 141f. (The allegro variant *X'd rather* merged with counterfactual, originally subjunctive *X (ha)d rather*, which at least from the Middle English period onward competed with *(woul)d rather*, cf. the data given in Webster's Dictionary 490f. (s.v. *had rather*), and OED (s.v. *rather*, III 8d *had rather*), 8e (*would rather*). The merger was facilitated by the overlap between the volitional meaning of *would rather* 'would prefer to' and the meaning of advisability conveyed by *had rather* 'would have been (well) advised to', cf. Quirk et al. 1985: 142 on the semantics.)

(iii) Beside (i) and (ii), non-auxiliary *would* survives in the formal idiom *would (that)*, e.g., *would (that) it were not so*, which despite being archaic and literary has not fallen out of use. In contrast with i) and ii), Modern English *would* in the *would (-that)* construction is no longer perceived as a verb but as a speech-act particle meaning 'I wish' (Quirk et al. 1985: 1011, note a). This is evident from the fact that the personal pronoun, which is commonly expressed before *would* in Middle and Early Modern English (cf. examples 5b-d), but begins to be omitted by the Early Modern period (cf. examples 5e-f), is entirely absent in the Modern English *would that* construction (cf. example 5g).

(5) a. *Ac* ic wolde *þæt þu me sædest hwæþer ðu wisse hwæt þu self wære*. 'I wished that you told me whether you knew who (what) you yourself were.' (Boethius, The Consolation of

Philosophy: Sedgefield, 1899 7–149; Sedgefield, W. J. *King Alfred's Old English Version of Boethius' De consolatione philosophiae* (Oxford) [repr. Darmstadt 1968]. chapter 5, p. 13, l. 10.)

b. *Though I am not altogether so scrupulous, yet* I would *it were done inculpably and duly.* (1536 Latimer, *Serm. & Rem.* (Parker Soc.) 377, Latimer, Hugh, *Sermons and remains a* 1555 (Parker Soc. 1844–45), OED, s.v. inculpably, *adv.*)

c. He would that *you should stay here a while to acquaint with us*. (1678 Bunyan, *Pilg. Prog.* I. 156, Bunyan, John, *Come and welcome to Jesus Christ* 1678, OED, s.v. *acquaint* 2)

d. I would that *I were dead.* (1830 Tennyson *Mariana*,Tennyson, Alfred, Lord, *Poems* 1830, OED, s.v. *tired*, *weary*. Const. *of*.)

e. Would *it were day*. (1599 Shakespeare, *The life of Henry the fifth*, III. vii. 2, OED, s.v. it, pron. 3b)

f. Would *it were not an infectious bane, or an incroching pocke*. (1593 G. Harvey *Pierces Supererogation* 17, Harvey, Gabriel, *Pierces supererogation, or a new prayse of the old asse* 1593, OED, s.v. pock 2a (b))

g. Would that *everyone treated me as considerately*. (Quirk et al. 1985: 1011, note a)

As with German *geschweige denn*, it is on the syntactic level that we find persistence: in Modern English, *would*, when used as a particle, continues to govern a sentential complement (6a), as was possible for *ic wolde* 'I wished' in Old English but is ungrammatical for verbal *would* in Modern English (6b).

(6) a. Particle *would*
Would (that) it were not so.

b. Verbal *would*
**I would (that) it were not so*.

Another persistent feature on the syntactic level is that the complementizer *that* is not obligatory after *would* 'wished'. The optionality of the complementizer after the particle *would* (as seen in 5b-g) is an inheritance from the original speech-act construction. Many verbs, including speech-act verbs, allow the complementizer *that* to be omitted (7b), whereas nonverbal constructions normally require the presence of a

complementizer, cf. the contrasting examples (7) and (8), and the (near-)ungrammaticality of (8b).

(7) Speech-act construction
  a. *I wish that things were getting better.*
  b. *I wish Ø things were getting better.*

(8) Other
  a. *Now that you are here, things are getting better...*
  Not that I would know of.
  b. *Now Ø you are here, things are getting better...* (colloquial)

2.3. German *als da wäre*(*n*)

German uses a formal idiom *als da wären, als da sind* 'to wit, namely', which shows persistence in the use of *als* as relative pronoun. The relative use of German *als* was common several centuries ago in Early Modern German (Ebert et al. 1993: 447, § S 268,2). Due to its homophony with the otherwise productive conjunction *als* ('as, when, than'), the persistent relative-comparative *als* is regarded as a transparent and productive specialization of the homophonous Modern German conjunction *als.*

(9) Early Modern German
  und damit die zweene gulden, als sie yme... geben han
  'and thereby the two guilders that they gave him' (Frankfurter Amts- und Zunfturkunden. Hg. von Karl Büchner und Benno Schmidt. 2. Teil. Frankfurt a. M. 1915, p. 138).
  Die Schrift nennt (Tit. 1, 12) *solche Menschen Bestien, das heißt, wilde Tiere,* als da sind: *Wölfe, Säue, Bären und Löwen...*
  'The script calls such humans beasts, that is, wild animals, to wit, wolves, sows, bears, lions…' (Martin Luther: Ein Sendbrief von dem harten Büchlein wider die Bauern (1525). Martin Luther: Luther-W Bd. 7, p. 224).

(10) Modern German (19th c.)
  Dann formte er in bewundernswerter Geschwindigkeit die Dinge, ich meine die großen wirklichen Dinge, als da sind: *Felsen, Gebirge, einen Baum...*

> 'Then he made at admirable speed the things, I mean, the great real things, to wit, rocks, mountain, a tree…' (Rilke: Geschichten vom lieben Gott; Rilke-SW Bd. 4, p. 289.)

2.4. English *let alone*

The English *let alone* construction maintains the original argument structure of English *let* with nominal object 'to leave someone/something alone', which is still alive in its German cognate *lassen* (11a). From a semantic point of view, *let alone* bears all the earmarks of a collocation that is comparatively older than the competing *leave alone*, cf. Webster's Dictionary 589: "*leave alone*, however, does not seem to have been a very conspicuous part of the literary mainstream. Shakespeare, Congreve, and Defoe, for instance, use *leave alone* only in its literal sense of 'leave in solitude'; they use *let alone* for 'to refrain from bothering or using.'" In the same vein, the *let alone* construction with nominal object betrays a degree of formulicity in that its occurrence came to be restricted to certain phrase types (and especially imperative clauses as in 11b), in contrast to other clause-types in which *let* is on the wane (13b, cf. *OED* I, 357, s.v. alone 4 and *OED* VIII, 846, s.v. *let* 18a).

(11) a. Grammatical, independent of register: German
Ich lasse dich alleine
'I leave you alone.'

b. Obsolete: English
I let you alone ("Why not let her alone, old sport?" remarked Gatsby—*The Great Gatsby*, 1925; Webster's Dictionary 589) versus *Leave me alone!* (superseding the old-fashioned *Let me alone!*)

c. English conjunctional *let alone* 'not to mention':
He wouldn't welcome me, let alone you.

2.5. English *the* X*er... the* Y*er...*

The persistence (and reactivation) of an inherited feature can be facilitated by split development, in which an archaic and an innovative feature continue to coexist in such a way that the archaic item is still

morphosyntactically transparent and thus open to reanalysis as a special use of its functionally innovative counterpart. An example is the special comparative adjunct use of *the* in the proportional clause of the *the X-er the Y-er* type (dealt with by Fillmore et al. 1988: 506–508, and Hopper and Traugott 2003: 122, e.g. *the harder he worked, the happier he felt* [Quirk et al. 1985: 1111]), which represents an archaism but has been synchronically reintegrated as one of the special uses of the homophonous article *the* of present-day English. On the one hand, the use of *the* as an adjunct qualifying an adjective phrase made up of a comparative adjective is a morphosyntactic archaism, preserving an instance of the old instrumental and demonstrative use of the originally pronominal *the*. On the other hand, the instrumental and substantival use of *the* alongside a comparative is not a dead and frozen feature in contemporary English; on the contrary, it is fully productive. And although the old instrumental case has long been out of use in modern English, its former function of denoting the degree of difference with comparatives has remained unaltered. The erstwhile productive instrumental was grammatically transformed into a lexicalized special adverbial use of the homophonous article when juxtaposed to comparatives; yet despite this transformation a continuity of function persists.

The degree of persistence can be ordered on a morphosyntactic continuum ranging from opaque to transparent. In Section 2.6 I give a quantitative comparison of the degrees of persistence encountered in the five formal idioms discussed above.

2.6. Degree of persistence

Persistence is the degree to which the source construction has remained unaltered at the synchronic level. Table 3 summarizes the degrees of persistence found in the German and English formal idioms in sections 2.1-5. Columns 2-5 attribute the individual values "–" = 0 (fully opaque), "±" = 0.5 (partially transparent), and "+" = 1 (transparent) to the constructional properties LEXICAL TRANSPARENCY, SEMANTIC PERSISTENCE, MORPHOLOGICAL PERSISTENCE and SYNTACTIC PERSISTENCE. Each score is provided with a gloss in parentheses. The last column gives the total score of persistence out of 4 (= full persistence), thus indicating the ratio of persistence versus innovation.

Table 3. Degree of persistence

FORMAL IDIOM	LEXICAL TRANSPARENCY	SEMANTIC PERSISTENCE	MORPHOLOGICAL PERSISTENCE	SYNTACTIC PERSISTENCE	**Degree of persistence** (Score out of total 4)
als da wäre(n)	+ (transparent)	± (relative-comparative *als* partially transparent)	+ (inflectability: *wäre, wären, sind*)	+ (sententiality maintained; congruence between verb and nucleus)	3.5
geschweige denn	– (opaque)	– (*geschweige* and *denn* opaque)	– (*VP → particle)	+ (sentential complement possible)	0.5
would (rather) (i,ii)	+ (transparent)	+ (non-auxiliary verb, volitional semantics)	– (VP)	+ (sentential complement possible)	4
let alone	+ (transparent)	+ (non-causative *let* 'leave')	± (imperative function; but VP → conjunction)	+ (nominal object possible)	3.5
the Xer... the Yer	+ (transparent)	± (*the* expressing degree)	+ (demonstrative use of *the*)	+ (NP status of *the*)	3.5
would (that) (iii)	– (opaque: loss of verbal word class)	± (volitional meaning 'wished')	– (*VP → particle)	+ (sentential complement possible)	2,5

3. Feature and type persistence

A common denominator of the five constructions discussed above is their property of being formal idioms, i.e. they present the synchronic combination of an inherited formulaic core structure and a lexically free structure. The formulaic core structure typically serves as the marker of the construction (e.g., German *geschweige denn*, English *would (that)*, *let alone*), and its persistent and transformed properties formally constrain the associated lexically free structure.

To be distinguished from the persistence of particular morphemes and individual grammatical properties (feature persistence) is another type, the persistence of a syntactic type (type persistence). In contrast to the fixed lexical make-up of the formulaic components of formal idioms, there is no fixed lexical make-up in the case of type persistence.

An example is furnished by English verb-phrase negation without *do*-support (e.g. *isn't, can't, mustn't*), which is more archaic than the innovative type involving the auxiliary *do*. The English verb-phrase negation without *do*-support is a syntactic type because it has no fixed lexical make-up. It involves a small closed class of verbs which implement this type (*be* and some auxiliary verbs). (On the gradual diffusion of *do*-support cf. Bybee 2010: 132.)

Another revealing example of type persistence is provided by Indo-European constructions involving nouns and close appositions. This construction represents a linguistic archaism in the use of nominal classification (by unextended apposition) alongside the developing and more recent type represented by adjectival classification. In archaic Indo-European, nominal classification typically persisted in the functional domain of classifying generics. An instructive example is the appositional use of generic terms for men and woman to indicate the natural sex of animate beings, which is a demonstrably archaic feature in Indo-European,[8] cf. examples (12)-(14).

(12) Archaic Latin

a. *agnum* marem
lamb.ACC.SG male.ACC.SG
'a male lamb' (Festus p. 204 Lindsay)

b. *porcō* fēminā
pig.ABL.SG female.ABL.SG
'with a sow' (Cicero *Leg*. 2.57)

(13) Homeric Greek
phúlakás t' ándras, *dmōás*
guardian.ACC.PL and man.ACC.PL servant.ACC.PL
te gunaĩkas
and woman.ACC.PL
'guardian men and servant women' (*Iliad* 9.447)

(14) Tocharian B
a. *kapyāri śrāy klaiyna*
worker.NOM.PL adult.man.NOM.PL woman.NOM.PL
'male and female servants' (SI B Toch./9.11, ed. Pinault 1998: 6)
b. *yakwi* alyi
horse.NOM.PL male.NOM.PL
'stallions' (HWB plate 20 cited by Schmidt 2001: 23 fn. 19)

The Tocharian B syntagm indicates that Toch. B *yakwe* 'horse' is a gender-indifferent generic noun. This supposition is confirmed by the potential of *yakwe* to be coreferential with female adjectives, cf. e.g. (15).

(15) *Putewante Cipaiśenmeṃ* san-ai tseñ-ai
Puttewante Cipaiśe.ABL one-ACC.SG.F grey-ACC.SG.F
yakwe *wāya*.
horse.ACC.SG carried.away
'Puttewante carried one grey mare away from Cipaiśe' (Cp. 37+36, 28f., Ching 2010: 211).

In sum, the Tocharian evidence bears out Wackernagel's old claim that the PIE term for horse, **h₁ek'wos*, was indifferent to gender and that marked feminine forms such as Latin *equa*, Lithuanian *ašvà* and Sanskrit *áśvā* represent language-specific innovations, cf. Wackernagel (1928: 24): "Es ist äusserst wahrscheinlich, dass hier das Griechische [ὁ/ἡ ἵππος] den ältesten Zustand darstellt."

Simultaneously, examples like those in (12-15) provide insight into the plausible origin of noun classifier constructions as found in many non-Indo-European languages, see Hackstein (2010: 7ff., 41ff., 45ff.), cf.

(16) Tucano (Amazon)
a. *semê* ımı
paca man
'male paca (a large rodent)'
b. *semê* numiô
paca woman
'female paca' (Aikhenvald 2000:358 n.4)

Nominal classification was especially prominent in Proto-Indo-European, and although it later came to be a recessive feature, it persisted into most ancient Indo-European languages in varying degrees. In the Anatolian and Tocharian branches of Indo-European, nominal classification as a syntactic type remained basically intact alongside the type of adjectival classification (Hackstein 2010: 11–17, 19–23). In Greek and Latin, by contrast, this syntactic type underwent several developments along a gradient from free to habitual collocations, and from habitual collocations to syntactic constructions. But nonetheless it remained remarkably robust, such that Latin still has occasional instances of the numeral-noun subtype, e.g. *trēs viri epulōnēs* 'three-men [college of] sacrifical priests' (Liv. 33.42.1), *septem virum epulōnum* 'of the seven-men [college of] sacrifical priests' (Gell. 1.12.6).[9] In Latin the numeral-*vir* collocations are clearly old and phraseological, as is indicated by their univerbation (*sēvirī* '[board of] six men' < **sex=virī*), morphological "freezing" (cf. the archaic forms *trium virum* with old gen. pl. ending *-um* instead of *-ōrum*, and *trīs virōs* with acc. pl. *trīs* instead of *trēs*), and by Old Irish word-formational parallels (cf. Old Irish *triar* 'three men/persons'; Hackstein 2010: 56f.). But freezing need not imply that a form has fallen out of living use or precludes persistence phenomena. For example, the fact that the English modal *ought to* is morphologically a frozen and defective verb form does not prevent it from being an active component of present-day English morphology and conveying syntactic persistence in its negated form *ought not/oughtn't to* (negation without *do*-support even outside the more archaic layer of English modals that descend from preterite-present verbs). Similarly, constructions like Latin *trēs virī*

epulōnēs, *trīs virōs epulōnēs* are synchronically robust constructions in spite of their morphologically and syntactically archaic structure.

4. Summary

This article has presented a number of case studies of persistent syntactic features from Indo-European and explored the question of what relations can hold between diachrony and synchrony. Language change can affect the various exponents of a given construction unevenly, leaving certain parameters of a construction unaltered while changing others. As a result, the constructions of a given language may be unevenly rooted in history. Since persistence is hardly ever complete, but is for the most part selective, it is possible to distinguish different degrees of persistence. Furthermore, we saw that persistence can involve lexically bound parameters of a formal idiom (feature persistence) or an entire syntactic type, independent of any specific lexical make-up (type persistence).

Closer inspection reveals that persistent features are more than just transformed and lexicalized fossils from the linguistic past and hence must not be regarded as extraneous to synchronic grammar. Rather, persistent features are demonstrably integral parts of synchronic grammar. In spite of the fixed lexical make-up of construction markers like German *geschweige denn* and English *let alone* the associated argument structure of the frozen verb forms *geschweige, let (alone)* was maintained and kept lexically open. In the same vein, the appositional and postpositional use of *mās/fēmina* 'male/female' in archaic Latin shows no restriction to a lexically defined selection of host nouns, but appears to be combinable with any generic animal name. Depending on the semantics of the host noun, either *mās* or *vir* is used: designations of male animals demand the apposition of *mās* (i.e. *agnus mās*), while male human referents require *vir* instead (i.e. *trēs virī epulōnēs*). Thus the inherited structure of nominal predication and classification is synchronically alive in Latin, albeit restricted in distribution (the inventory of classifiying nouns has become a closed class, i.e. *mās/vir/fēmina*). In sum, the reintegration of persistent features can readily lead to the projection of parts of the linguistic past into the synchronic grammar of a language.

Notes

1. I would like to thank D. M. Goldstein, D. Gunkel, and R. Kim for reading and commenting on an earlier version of the present article. The responsibility for all errors and infelicities remains my own.
2. Rather than being a self-contained process, grammaticalization frequently and quite naturally appears as a process affecting and redefining the functional relationship between several words (Traugott 2005: 624f.; cf. 2008b: 220ff.).
3. Abbreviations: ABL = ablative; ACC = accusative; DAT = dative; F = feminine; GEN = genitive; LOC = locative; NOM = nominative; PL = plural; SG = singular.
4. See Behaghel (1928: 205–208) and Paul et al. (2007: 216); Behaghel's data refute the supposition of an underlying genitive, as claimed by Kluge and Seebold (2002: 465) and Altmann and Kemmerling (2005: 160f.).
5. Native speakers of German no longer have a notion as to whether to assign {-er} in adverbs of the type *zugegeben-er-maßen* to the dative or to the homophonous genitive.
6. In contrast to Modern English *can*, whose usage has shifted entirely from a cognitive verb involving 'knowledge, mental ability' to a skill verb involving 'ability', cf. Bybee (2010: 167–171).
7. As already observed by Behaghel (1924: 3 and 1928: 177): "*geschweige* ... geht auf *ich geschweige* zurück und hat erst nhd., nach der Unterdrückung des Pronomens, den Charakter der Konjunktion angenommen."
8. For a collection of examples see Hackstein (2010: 14f., 47, 53ff., 57).
9. In the given passage, *trēs virī* functions as an appositional (and adjectival) phrase. This can be inferred from phrases like nom. sg. *trium-vir epulō* (Liv. 40.42.7) 'sacrificial priest of the three-men board' or dative singular *septem-virō epulōni* (CIL 3.1741) 'to the sacrificial priest of the seven-men board', with adjective-like *trium-vir* and *septem-virō*. Formations like these can be understood only as back-formations from inflected genitive plurals like **trium virum epulōnum* and *septem virum epulōnum* (Gell. 1.12.6), in which the numeral crucially occurred already as a phonologically univerbated constituent of the collocation (Hackstein 2010: 54f.).

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