Towards a source-oriented approach to typological universals

Sonia Cristofaro

Sorbonne Université, Paris, France

Abstract. Typological universals are skewed distributional patterns whereby languages recurrently display certain grammatical patterns as opposed to others. Explanations for these patterns are usually based on their synchronic properties, not actual diachronic processes that shape the pattern cross-linguistically. The paper discusses diachronic evidence about the origins of some typological universals pertaining to word order and aspect/tense conditioned alignment splits. This evidence poses two general challenges for synchronically based explanations of typological universals. First, the relevant patterns do not obviously arise because of the principles postulated to account for these patterns on synchronic grounds. Second, the development of these patterns is a combined result of multiple diachronic processes. These facts point to a new, source-oriented approach to typological universals, one focusing on what source constructions and developmental mechanisms play a role in the shaping of individual patterns, rather than the synchronic properties of the pattern in itself.

Keywords: typological universals, diachrony, relative clause order, possessor order, aspect/tense conditioned alignment splits

1 Introduction

Typological universals, as originally defined in Greenberg 1966, are skewed cross-linguistic distributional patterns whereby languages recurrently display certain grammatical configurations as opposed to others. In the functionalist research tradition that originated from the work of Joseph Greenberg, these

patterns are usually regarded as a result of diachronic processes that take place over time in the evolution of individual languages. This is part of a more general view that synchronic grammars are a reflection of diachronic change, so that theories of why languages are the way they are fundamentally theories of language change (Givón 1979; Dryer 2006, among many others). This is in contrast to formally oriented theories of grammar, where language universals (including typological universals) are viewed as a result of inbuilt constraints in a speaker's mental grammar, which play a role in a speaker's synchronic production of the relevant constructions.

This view implies that explanations for typological universals should be based on the study of the diachronic processes that lead to the emergence of the relevant distributional patterns cross-linguistically, rather than these patterns in themselves. Over the past decades, this view has been advocated by several scholars (see, for example, Bybee 1988, 2006 and 2008; Aristar 1991), but it has not really made its way into the actual typological practice. Typological universals are usually accounted for based on the synchronic properties of the relevant patterns, not how these patterns actually originate from one language to another. For example, a number of cross-linguistic word order correlations are explained by assuming that they lead to syntactic configurations that are easier to process (Dryer 1992; Hawkins 1994 and 2004). While this implies that processing ease could play a role in the development of the relevant word orders cross-linguistically, this hypothesis is based on the synchronic syntactic configurations produced by particular word orders, not how these word orders originated in individual languages.

This paper discusses several pieces of diachronic evidence about the cross-linguistic development of the distributional patterns described by some typological universals pertaining to word order and aspect/tense conditioned alignment splits. This evidence, it will be argued, challenges synchronically based explanations of typological universals in two major ways. First, the patterns described by individual universals do not obviously arise because of the principles postulated to account for these patterns on synchronic grounds. Second, individual patterns are a combined result of several distinct diachronic processes, which do not obviously reflect a unified phenomenon. The effects of these processes should then be disentangled when accounting for the pattern.

2 Relative clause order and possessor order

A well-known typological universal, illustrated in (1), pertains to the order of relative clauses and possessors vis-à-vis their respective heads.

(1)   NG → NRel (Dryer 2007, among others):
- when possessors are postposed, relative clauses are usually also postposed;
- when relative clauses are preposed, possessors are usually also preposed;
- possessors, however, are preposed also when relative clauses are postposed.

This pattern has been accounted for in terms of the head-modifier structure of relative clause constructions and possessive constructions. One line of explanation assumes a general tendency for elements performing the same function to be placed in the same position: as relative clauses and possessors are both modifiers, they will be placed on the same side of the head, either preposed or postposed (Lehmann 1974; Vennemann 1974). In another approach, elaborated by Hawkins (1983, 1994, 2004, 2014; see also Dryer 1992), preposed modifiers delay recognition of constituency relationships, because the latter depends on head recognition, and heads cannot be recognized until the modifier is processed. Also, a preposed modifier must be held in working memory until the head is processed, leading to a burden for working memory. Postposed modifiers, then, are generally preferred over preposed ones, except in OV languages. In these languages, modifiers of a direct object will be placed between the latter and its verbal head (e.g. '[the man **who came here**] I saw', '[the father **of the boy**] I saw'), thus delaying recognition of the syntactic relationship between the two. In these languages, then, there are competing processing motivations for preposed vs. postposed modifiers.

More structurally complex modifiers, such as relative clauses, lead to a longer delay in head recognition and a heavier burden for working memory than less structurally complex modifiers, such as possessors. Preposed relative clauses, then, are more strongly disfavored than preposed possessors, so the

former will usually only occur when the latter also occur. Conversely, as there is a stronger preference for postposed relative clauses than postposed possessors, the latter will usually only occur if the former also occur.

These explanations are synchronically oriented, in that a synchronic property of relative clause constructions and possessive constructions, namely their head-modifier structure, is assumed to motivate particular relative clause orders and possessor orders (postposed relative clauses and possessors, or preposed ones in OV languages), as well as relative cross-linguistic preferences for these orders that lead to the attested co-occurrence pattern. Relative clause constructions and possessive constructions, however, typically originate through the reinterpretation of other constructions cross-linguistically, so that, other things being equal, their word order will actually be the word order of the source construction. Often, this construction does not have a head-modifier structure, so its order cannot be explained in terms of principles pertaining to this type of structure.

In many languages, for example, relative clause constructions and possessive constructions are both derived from the same construction, one where an anaphoric element or a semantically generic noun combined with some modifying expression stand in apposition to some other expression, e.g. 'X, **the one/ the thing** Y VERBs', 'X, **the one/ the thing** (of) Y'. Over time, this construction gives rise to a relative clause construction and a possessive construction, with the two appositives becoming, respectively, the head of the construction and the relative clause or the possessor expression. As a result, the anaphoric element or the semantically generic noun evolve into relative markers and possessive markers, 'The X **that** Y VERBs', 'The X **of** Y'. This process was first described by Aristar (1991) for a number of Agaw languages, illustrated in (2) by Bilin. Similar proposals have been made by DeLancey (1986, 2002) for Newari ((3)), and by Yap and Wang (2011) for Middle Chinese ((4)).

Bilin (Cushitic, Aristar 1991, 13)
(2) a. *'aqwa   ja'ag-na-**x^w-əl***
         water   drink-1PL.NEG-M.REL-to
         'to water that we do not drink' (originally 'to water, the one (that) we do not drink')
     b. *ti'idad   adäri-**x^w-əd***
         order   lord-M.GEN-DAT

'by the order of the lord' (originally 'by order, the one of the lord')
Newari (Tibeto-Burman, DeLancey 2002, 60–61)

(3) a. *je-nə*   *nyan-a-**mha***   *nya*
         1SG-ERG   buy-PST-NMLZ/REL   fish
         'The fish that I bought' (originally 'the thing that I bought, a fish')

     b. *ra:m-ya:-**mha***   *khica:*
         Ram-GEN-NMLZ/POSS   dog
         'Rham's dog' (originally 'Ram's thing, a dog')

Middle Chinese (Ya, Choi and Cheung 2010, 77–79)
(4) a. *liao*   *wan*   *bing*   ***di***   *iao*
         cure   ten.thousand   sickness   REL   medicine
         'a medicine that cures all sickness' (originally 'the one (that)
         cures ten thousand sickness, medicine':)

     b. *wo*   ***di***   *xue wen*
         1SG   GEN   knowledge
         'my knowledge' (originally, 'my one, knowledge')

Appositional constructions are often analysed as consisting of two coref-
erential expressions with the same syntactic status within the sentence ('**X**$_i$,
the VERBing **one**$_i$; '**X**$_i$, Y's **thing**$_i$'), rather than two elements standing in a
head-modifier relationship (Quirk, Leech, Greenbaum, and Svartvik 1985;
Keizer 2007; Bauer 2017, among others).

Relative clause constructions can also originate from combinations of two
independent clauses: one of the two clauses evolves into a relative clause, while
some NP in the other clause becomes the head, as illustrated in (5).

Ancient Greek (Homer, Iliad 10.12: Monteil 1963, 28)
(5) *thaúmaz-en*   *pur-à*   *poll-à*   *tà*
     marvel-IMPF.3SG   fire-ACC.PL   many-ACC.PL   REL/ANAPH.NOM.PL
     kaíe-to   *Ilióthi*   *prò*
     burn-IMPF.3SG   Troy   before
     'He marveled at the many fires, those burned before Troy/ they burned
     before Troy.' > 'He marveled at the many fires that burned before Troy.'

Possessive constructions can be derived from structures where the possessor is a topic or a component of a predicating expression, as illustrated in (6) and (7).

Kairiru (Oceanic, Lichtenberk 1985, 99)

(6) *Nur   yaqal   qajuo-ny*
    Nur   he   cousin-his
    'Nur's cousin'

Kanakuru (Chadic, Schun 1983, 183, 193)

(7) *ɓili   **ma**   lowoi*
    horn   POSS   boy
    'the boy's horn' (possessive element derived from a demonstrative, under one possible analysis in a construction of the type 'the horn (is) that (of) the boy')

In these cases too, the source construction does not have a head-modifier structure, so the order of the elements that give rise to the relative clause or the possessor expression and their respective heads cannot be explained in terms of principles pertaining to this type of structure.

A more general point about explanations in terms of head-modifier structure is that they postulate principles that operate independently for particular relative clause orders and particular possessor orders and lead to the attested co-occurrence pattern for these orders, for example principles that lead speakers to place both relative clauses and possessors on the same side of the head, or relative preferences for one order over the other. Diachronic evidence shows, however, that in several cases co-occurring relative clause orders and possessor orders are not actually distinct orders. As illustrateted by examples (2)–(4), for instance, relative clause constructions and possessive constructions somentimes continue the order of a single source construction from which they are both derived. In other cases, the relative clause construction is derived from the possessive construction, so that it continues the order of the latter. This has been proposed, for example, for Classical Tibetan (DeLancey 1999) and Akkadian (Deutscher 2001).

Classical Tibetan (Tibeto-Burman, DeLancey 1999, 233)

(8)　*bcad-pa-'i*　　　　*shing*

　　cut-NMLZ-GEN　　　tree

　　'the tree that has been cut' (literally 'the tree of cutting')

Akkadian (Semitic, Deutscher 2001, 410)

(9)　a.　*dīn*　　　　　*šarr-im*

　　　　judgement.of　　king-GEN

　　　　'the judgement of the king'

　　b.　***tuppi***　　　　*addin-u-šum*

　　　　tablet.of　　　　I.gave-SUBJ-to.him

　　　　'the tablet that I gave to him' (originally 'the tablet of my giving')

In these various cases, relative clause order and possessor order are actually one and the same, either because they both continue the order of a single source construction, or because one order continues the other. There is no evidence, then, for principles that apply independently to particular relative clause orders and possessor orders and lead the language to develop both of these orders. Such principles can only be posited for cases where there is evidence that the co-occurrence of the relevant orders in the language is a result of separate processes that could independently reflect the assumed principle. This is the case, for example, when the relative clause construction and the possessive construction are derived from distinct sources, as in the Old French examples in (10).

Old French

(10) a.　*la*　*nuit*　***que***　*mesire Gauvain*　*jut*　*avec*　*la*　*bele*

　　　　the　night　REL　lord　Gauvain　slept　with　the　beautiful

　　　　file　　*Helient*　*le*　　*roi*　　*de*　　*Norgales*

　　　　daughter　Helient　the　king　of　Norgales

　　　　'The night lord Gauvain slept with Helient, the beautiful

　　　　daughter of the king of Norgales' (Schafroth 1993, 84: relative

　　　　element derived from a corresponding Latin one, in turn derived

　　　　from an interrogative/indefinite element)

b. *les   cols   **de**   lor   chevaus*
   the   necks   POSS   their   horses
   'the necks of their horses' (Heine 1997: possessive element
   derived from an adposition meaning 'from')

These various facts have three general consequences for synchronically oriented explanations of the co-occurrence pattern for relative clause order and possessor order. First, particular synchronic properties of relative clause constructions and possessive constructions (such as their head-modifier structure) may not account for the development of particular relative clause orders or possessors orders in individual languages, because these orders continue the order of some source construction that did not have those properties. Second, synchronically oriented explanations may not account for the co-occurrence of particular relative clause orders and possessor orders in some languages. As these orders are distinct at the synchronic level, synchronically based explanations will postulate principles that operate independently for each order. In many cases, however, the two orders are actually one and the same, but this is only apparent at the diachronic level. Finally, synchronically based explanations are meant to account for all of the instances of particular relative clause orders or possessor orders, as well all of the cases where these orders co-occur. This is because these explanations are based on synchronic properties of these orders that will be manifested in all of their instances. Diachronically, however, relative clause constructions and possessive constructions each originate from different sources from one language to another, and their co-occurrence is a result of different developmental processes. The development of particular relative clause orders and possessor orders, as well as the fact that some language develops both of these orders, will then reflect different motivations depending on the source constructions and processes involved.

3 Aspect/tense conditioned alignment splits

Alignment splits can be conditioned by aspect/tense cross-linguistically. Ergative alignment can be restricted to perfective/past contexts, but is usually not restricted to imperfective/non-past ones. Accusative alignment can be restricted to imperfective/non-past contexts, but is usually not restricted to perfective/past ones (though see Gildea 1993 and 1998 for several exceptions and discussion thereof).

These patterns have been explained by postulating semantically and pragmatically motivated preferences for the use of ergative alignment in perfective/past contexts and accusative alignment in imperfective/non-past ones. For example, Dixon (1981, 1994) argues that, since perfectivity involves completed events, these can be described from the perspective of any of the participants involved, and are therefore compatible with both A/S (accusative) and S/O (ergative) alignment. Imperfective events, on the other hand, are prospective possibilities that are usually described from the perspective of the agent, and tend therefore to be associated with A/S alignment. Similarly, DeLancey (1981, 1982) argues that perfectivity and imperfectivity are associated with different viewpoints. Perfectivity focuses on the termination of the event, hence on patients, whereas imperfectivity focuses on the onset, hence on agents. These two viewpoints are reflected by ergative and accusative alignment respectively. Tsunoda (1981) argues that the use of ergative alignment is related to an effectiveness condition defined, among other things, by the degree to which some action is completed and the patient is affected. In ergative languages, Tsunoda argues, this leads to the use of ergative alignment in perfective, as opposed to non-perfective contexts.

These explanations are based on particular synchronic properties of ergative and accusative alignment, namely the fact that they assumedly reflect different viewpoints from which to present events. Diachronically, however, aspect/tense conditioned alignment splits appear to be a result of two major processes, the development of new ergative or accusative constructions restricted to particular aspectual/temporal contexts, and an existing ergative or accusative construction becoming restricted to these contexts. Both of these processes suggest alternative explanations for the relevant alignment splits.

New ergative constructions restricted to perfective/past contexts often develop through the reinterpretation of various types of intransitive resultative constructions, such as 'Y is VERBed by X', 'Y is X's VERBee', 'To X is a VERBed Y'. In these constructions, Y is an S argument which is in a state resulting from some previous action, whereas Y is an oblique agent, a beneficiary, or a possessor. These constructions are inherently perfective, and evolve over time into transitive ones with perfective or past meaning, 'X VERBed Y'. In the resulting constructions, Y, now the P argument, retains the marking used for the S argument from which it is derived, whereas X, now the A argument, maintains its original oblique, beneficiary, or possessor marking, and hence has dedicated marking.

This process has been reconstructed for several languages and language families worldwide. For example, in a number of Carib languages, illustrated in (11) by Wayana, new ergative constructions restricted to perfective/past contexts developed from a passive perfective construction (Gildea 1998).

Wayana (Carib, Gildea 1998, 227)

(11) *kuraʃi*   *ti-panaŋma-y*   *(man)*   *i-ya*
      rooster   ADV-hear-PTCPL   3.be   1-ERG
      'I heard the rooster.' (originally 'The rooster was heard by me')

In Indo-Aryan and Iranian, new ergative constructions restricted to perfective/past contexts developed from intransitive constructions with the perfective participle in *-ta*, which are assumed to originally have been either passive or possessive constructions (see Haig 2008, 2017; Verbeke and De Cuypere 2009; Stroński 2011; Verbeke 2013 for recent comprehensive reviews of this debate). This is illustrated in (12) and (13) for Late Middle Indo-Aryan and Old Persian (in these examples, the pronominal forms used for A arguments function as ergative forms, though the glosses reproduce the labels traditionally used for these forms in the descriptive tradition of these languages, which in turn reflect the original function of the forms).

Late Middle Indo-Aryan (Indo-European, Bubenik 1998, 148)

(12) *laddh-a*   *tuhuṃ*   **maiṃ**   *im-aṃmi*   *van-aṃmi*
      find-PERF.PTCPL.NOM   2SG.NOM   1SG.INSTR   this-LOC   wood-LOC
      'I have found you in this forest.' (originally 'You are found in this forest by me')

Middle Persian (Indo-European, Haig 2017, 470)

(13) *taya*   **manā**   *kərtam*   *idā*
      that.which.NT.SG   1SG.GEN/DAT   do.PTCPL.NT.SG   here
      'That which I did here' (originally 'my deed')

In North-Eastern Neo-Aramaic dialects, as illustrated in (14) for Turoyo, two distinct sets of person indexes, the S-set and the L-set, are used in perfective constructions for S and P arguments and A arguments respectively, yield-

ing an ergative pattern. Indexes in the L-set are derived from the combination of person markers with a dative preposition *l-*, and were also used in intransitive resultative constructions of the type 'Y is VERBed to X', where Y was an S argument and X was an experiencer or beneficiary in the dative, for example, 'X is known to Y'. According to Coghill (2016), ergative alignment in the perfective arose as these constructions were reinterpreted as transitive ones, 'X VERBed Y'. In the resulting transitive constructions, X, now the A argument, retains L-indexes, whereas Y, now the P argument, is indexed by the S-set used for S arguments because it is derived from an S argument.

Turoyo (Semitic, Coghill 2016, 56)

(14) a. *nšiq-**o-le***
   kiss.PST-S.3F.SG-L.3M.SG
   'He kissed her.'

   b. *damix-**o***
   sleep.PST.INTR-S.3F.SG
   'She slept.'

Similar processes lead to the development of new accusative constructions restricted to imperfective/non-past contexts. In the Carib language Wayana, for example, a progressive construction of the type 'X is VERBing Y', illustrated in (15), developed out of an intransitive one, 'X is occupied with the VERBing of Y'. In the transitive construction, the A argument X is encoded in the same way as S arguments because it is derived from the S argument of the intransitive construction. The P argument Y is derived from the possessor of a nominalized verb in the intransitive construction and retains the possessive marking of the latter, yielding an accusative pattern (Gildea 1998).

Wayana (Carib, Gildea 1998, 201)

(15) *ɨ-pakoro-**n***	*iri-Ø*	*pǝk*	*wai*
1-house-POSS	make-NMLZ	occupied.with	1.be

   'I'm making my house (lit. 'my house's making')

Another source for new accusative constructions restricted to imperfective/non-past contexts are intransitive constructions of the type 'X is VERBing to/at

Y', often referred to as object-demotion constructions. In these constructions, which are usually associated with imperfectivity cross-linguistically, X is an S argument and Y is a patient encoded as a dative or an oblique. Over time, the construction can be reinterpreted as a transitive one, 'X is VERBing Y'. The new construction has accusative alignment, because X, now the A argument, retains the marking used for the S argument from which it is derived, whereas Y, now the P argument, retains dative or oblique marking (Harris 1985; Harris and Campbell 1995, Anderson 2005). This process took place, for example, in Kartvelian languages, leading to the development of a new imperfective construction, illustrated in (16) for Modern Georgian.

Modern Georgian (Kartvelian, Harris and Campbell 1995, 245)
(16) *deda*   *p'erang-s*   *recxavs*
     mother.ABS   shirt-DAT   washes
     'Mother is washing the shirt.'

These processes provide no evidence for general language preferences for the use of ergative or accusative alignment in particular aspectual/temporal contexts. The fact that the relevant ergative or accusative patterns are restricted to these contexts is an effect of the distribution of the source construction, as observed by several scholars (Anderson 1977, 2005, 2016; Gildea 1993, 1998; Harris and Campbell 1995, chap. 9). The fact that the source construction gives rise to an ergative or an accusative pattern is an effect of its argument structure, which yields these patterns once the construction is reinterpreted as a transitive one.

Aspect/tense conditioned alignment splits can also arise when an existing ergative or accusative constructions becomes restricted to a subset of its original contexts of use because a construction with a different alignment pattern develops in the other contexts. Gildea (1993, 1998) describes this process for several Cariban languages, and other cases in point are found in North-Eastern Neo-Aramaic dialects and Mayan. In North-Eastern Neo-Aramaic dialects, an accusative construction originaly used in both perfective and imperfective contexts became restricted to the latter contexts as a result of the development of the ergative perfective construction illustrated in (14) above (Coghill 2016). Proto-Mayan had an ergative person pattern used in both perfective and imperfective contexts.

In several Mayan languages, this pattern became restricted to perfective contexts as progressive constructions with accusative person marking were extended to all imperfective contexts. This gave rise to the alignment split illustrated in (17) for Chol. In the perfective, P and S arguments are indexed by set B person markers, whereas A arguments are indexed by set A person markers, yielding an ergative pattern. In the imperfective, A and S arguments are indexed by set A person markers, whereas P arguments are indexed by set B person markers, yielding an accusative pattern (Robertson 1992, Coon 2013).

Chol (Mayan, Coon 2013, 11)

(17) a. *tyi*   ***i-jats'-ä-yoñ***
         PFV   A3-hit-TRANS-B1
         'She hit me.'

    b. *tyi*   *majl-i-yoñ*
         PFV   go-INTRANS-B1
         'I went.'

    c. *choñkol*   ***i-jats'-oñ***
         PROG   A3-hit-B1
         'She's hitting me.'

    d. *choñkol*   ***i-majl-el***
         PROG   A3-go-NMLZ
         'She's going.'

These cases too provide no evidence for general language preferences for the use of ergative or accusative alignment in particular aspectual/temporal contexts. The relevant alignment patterns are originally used in a wider range of contexts, and distributional restrictions arise as a side effect of some of these contexts being taken over by a new construction with a different alignment pattern.

These various facts suggest that the distribution of ergative or accusative alignment across different aspectual/temporal contexts is an epiphenomenal result of the properties of particular source constructions and developmental processes that give rise to the pattern, rather than general principles pertaining to these patterns in themselves. This is supported by the fact that, when a new ergative or accusative construction develops in a language, its distribution

reflects the distribution of the source even when this leads to patterns that are in contrast with these principles, e.g. ergative constructions restricted to imperfective/non-past contexts or accusative constructions restricted to perfective/past contexts.

The Carib language Carinã, for example, evolved future tense constructions with ergative alignent as a result of the reinterpretation of constructions involving nominalized verbs possessed by a notional S or P argument. Constructions of the type 'It will be X's VERBing', used with intransitive verbs, were reinterpreted as 'X will VERB', with X becoming an S argument ((18a)). Constructions of the type 'It will be Y's VERBing by X', used with transitive verbs, were reinterpreted as 'X will VERB Y', with X and Y becoming an A and a P argument respectively ((18b)). In the resulting constructions, P and S arguments are encoded in the same way, because they are both derived from the possessor of the nominalized verb and retain the marking used for the latter. A arguments, on the other hand, are encoded differently, because they retain the marking used for the agents of the transitive verb in the source construction (Gildea 1998).

Carinã (Carib, Gildea 1998, 169–170)

(18) a. *i-woona-ri-ma*
          1-cultivate-NMLZ-3.be
          'I will cultivate' (original structure 'It will be my cultivating')

      b. *a-eena-ri-ma*   *i-'wa*
          have-NMLZ-3.be   1-ERG
          'I will have you' (original structure 'it will be your having by me')

Another case in point is the development of perfective/past constructions with accusative alignment (the so-called periphrastic perfect) in the evolution from Latin to Romance. These contructions developed from resultative ones of the type 'X has an Y VERBed' (meaning 'X has an Y that has been VERBed'), as these were reinterpreted as 'X has VERBed Y' (Benveniste 1968; Vincent 1982; Harris and Campbell 1995, 182–191, among others). The source construction and the resulting construction are illustrated in (19a) and (19b) respectively. The source construction had accusative alignment, and this was inherited by the resulting construction.

Latin

(19) a. *multa   bona   bene   parta   habemus*
       many   properties   honestly   obtained   have:1PL
       'We possess much property, honestly obtained.'
       (Plautus, *Trinummus* 347)

   b. *haec   omnia   probatum   habemus*
       those:ACC:PL   all:ACC:PL   tried   have:1PL
       'We have tried all those things' (Oribasius, *Synopsis* 7.48)

Overall, diachronic evidence about the origins of aspect/tense conditioned alignment splits has similar implications to the evidence about the origins of relative clause order and possessor order. These splits are directly motivated by the properties of particular source constructions, both in the sense that particular properties of these constructions (argument structure, distribution) directly motivate the properties of the split, and in the sense that the development of the constructions involved in the split (particular ergative or accusative constructions) is triggered by properties of the source construction, for example properties that lead to intransitive constructions being reinterpreted as transitive ones. There is no evidence, then, that the split arises because of general principles pertaining to ergative or accusative alignment and particular aspectual/temporal contexts in themselves. Also, particular splits are a result of several different processes, from the reinterpretation of different types of source constructions to a reduction in the original contexts of use of some existing construction following the development of a new one in some of these contexts. Their development will then reflect different motivations in different cases, rather than some overarching principle pertaining to all of their instances.

4 Concluding remarks

While the diachronic processes discussed in the previous sections have been documented for a limited number of languages, their consequences for synchronically based explanations of typological universals are far-reaching. These explanations generally assume that cross-linguistic distributional patterns are motivated by the synchronic properties of the relevant constructions. For example, correlations between relative clause order and possessor order are explained in terms of the head-modifier structure of relative clause

constructions and possessive constructions, and the distribution of ergative and accusative alignment across different aspectual/temporal contexts is explained in terms of synchronic properties of these alignment patterns that make them particularly suitable for some of these contexts. Diachronic evidence shows, however, that the development of these constructions is independent of their synchronic properties.

For example, particular relative clause orders or possessor orders may continue the order of some pre-existing construction that does not have a head-modifier structure. The fact that languages develop both particular relative clause orders and particular possessor orders sometimes cannot be explained in terms of relative cross-linguistic preferences for each order, because these orders are actually one and the same. Aspect/tense conditioned restrictions in the distribution of ergative or accusative alignment arise as a side effect of processes that are independent of any assumed connection between these alignment patterns and the relevant aspectual/temporal contexts, such as the fact that various types of intransive constructions used in these contexts are reinterpreted as transitive ones, or the fact that the original domain of use of an existing ergative or accusative construction is encroached upon by some new construction with a different alignment pattern.

In all of these cases, explanations for the development of the relevant distributional patterns should ultimately be explanations of the properties of particular source constructions, as well as how these constructions give rise to the ones involved in the pattern. Explanations for the development of particular word orders, for example, should be explanations of why these orders originated in the source construction. Explanations of aspect/tense conditioned alignment splits should be explanations of the argument structure and distribution of particular source constructions, and why these constructions evolve into ones with ergative or accusative alignment.

Synchronically based explanations of typological universals are also usually presented as comprehensive explanations for the relevant distributional patterns. This implies that all of the attested instances of those patterns reflect the principles proposed in the explanation, ones pertaining to the synchronic properties of the constructions involved in the pattern. Yet, diachronic evidence shows that different instances of the same pattern arise through different diachronic processes. Particular word orders originate from different source

constructions, and their co-occurrence is also a result of different developmental processes in different cases. Restrictions in the distribution of ergative or accusative alignment across different aspectual/temporal contexts also arise through several different processes, from the development of new ergative or accusative constructions from various types of pre-existing constructions to the development of constructions that encroach upon the original contexts of use of some pre-existing ergative or accusative construction. To the extent that these various processes are related to properties of the source construction, the resulting patterns will reflect different motivations depending on the source constructions involved, rather than some overarching principle pertaining to the pattern as a whole.

These facts suggest a new, source-oriented approach to the explanation of typological universals, one where the focus shifts from the synchronic properties of the relevant distributional patterns to disentangling the effects of multiple diachronic factors that shape these patterns cross-linguistically, including what source constructions and developmental mechanisms give rise to the pattern, and why some of these constructions or mechanisms are more frequent than others (Cristofaro 2013, 2014, 2017, 2019). This line of research has not been systematically explored in typology, but has a parallel, for example, in Evolutionary Phonology (Blevins 2004).

Abbreviations

A	set A person marker
ADV	adverbial
ANAPH	anaphora
B	set B person marker
DAT	dative
ERG	ergative
GEN	genitive
IMPF	imperfective
INTRANS	intransitive
L	set L person marker
LOC	locative
NEG	negation
NMLZ	nominalizer
PST	past
PERF	perfect

PL	plural
POSS	possessive
PFV	perfective
PROG	progressive
PTCPL	participle
S	set S person marker
SUBJ	subjunctive
TRANS	transitive

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