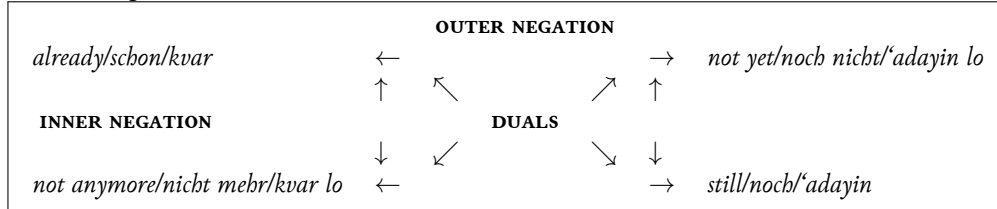


Universality and the evolution of aspectual adverbials

Templates. We argue, focussing specifically on aspectual adverbials including *again*, *still*, *then*, that some linguistic elements form a network and are best described as having a basic templatic definition. The template allows variation in linguistic realizations and accounts for patterns of polysemy. We show that realizations can be derived from a variety of related items historically, and that crucially the earlier forms lack any templatic component.

Templatic meaning for aspectual adverbials. There are a variety of items which are amenable to a templatic treatment. Consider aspectual adverbials. Löbner 1989 and Krifka 2000 propose a system of aspectual adverbials that are related by inner and outer negation:



The proposal above addresses temporal interpretation (*Fred is still / already sleeping*). Several adverbials, most notably *still* and its equivalents have usages that go beyond temporal interpretation. As discussed by Beck 2018 a.o., German *noch* ‘still’ and its equivalents permit a variable range of other readings, briefly illustrated below.

- (i) a. Reineland in still in Canada (spatial, also for *already*)
- b. He felt sick, but he still decided to stay (concessive)
- c. This dress is still expensive (marginal)

While some readings, including (i-a), merely involve a scale distinct from the temporal scale, others (e.g. (i-b), (i-c)) involve a more significant difference (see Beck 2018, a.o.). Thus *still*, *noch* can be said to involve polysemy.

Polysemy is not restricted to *still*. The aspectual adverbials below include repetitives, ordering *then* (*And then he left*) and its inverse. A number of items that are distinct in English have identical realizations:

	‘before that’	‘then’	‘again’	temp. ‘still’	‘already’	‘(not) yet’	‘(not) anymore’
Hindi <i>ab tak</i> , Nepali <i>abile samma</i>				X	(X)	X	
Hindi <i>phir</i> , Nepali <i>pheri</i>		X	X				
Romanian <i>mai</i>			X	X	X		X
Italian <i>ancora</i>			X	X	X	X	
Jamaican patois <i>aredi</i>					X	X	
Spanish <i>ya</i>					X		X
Spanish <i>todavía</i>				X		X	
Hungarian <i>még</i>	X			X		X	
German <i>noch</i>	X			X		X	

The polysemy of the various aspectual adverbs suggests a single underlying definition; the shared definition allows different meanings to be realized by the same element. At the same time, there is no expectation that there is a common element for all uses, as shown by the empty cells and by the first row of the table. Darker coloured cells indicate patterns which are unexpected on a Löbner-style approach.

Template. We propose that the underlying meaning is a template. Here x, x' are scalar entities (times, degrees, etc) such that x' precedes x on scale S ; P, Q are saturated predicates except for the arguments indicated, FA is a set of focus alternatives to $P(x, \dots)$ which differ in the elements under focus (times, degrees, or constituents). The aspectual adverbials can differ in the identity of the scale; the type of argument; whether P and Q are identical; the identity of the focused element (e.g. for repetitives (*again*) the time argument must be focused); and the relation (e.g. immediate precedence for *still* and *already*, simple precedence for *again*, ordering *then* and *before that*).

- (2) a. $\llbracket \text{aspectual adverb} \rrbracket = \lambda x_S \lambda e \lambda P : \exists x^* \exists e^* \exists Q [Q(e^*, x^*, \dots) \& Q(e^*, x^*, \dots) \in FA(P(e, x, \dots)) \& x^* R x]. P(e, x, \dots)$
- b. $\llbracket \text{still} \rrbracket = \lambda t_T \lambda e \lambda P : \exists t^* \exists e^* \exists Q [Q(e^*, t^*, \dots) \& Q(e^*, t^*, \dots) \in FA(P(e, t, \dots)) \& t^* \propto t]. P(e, t, \dots)$

The template offers a unique underlying definition. Whenever a surface form has different aspectual interpretations, that form is more general (the unmarked form), and other aspectual adverbs are more specific, but based on the template. Various interpretations of *still* (e.g. marginal and concessive readings) also fit the template.

Already. We reanalyze *already* as being similar to *still*, but involving an inverted time scale (so x^* follows rather than precedes x). Thus the truth of P at a preceding time is presupposed for *still*, but $\neg P$ implicated for *already*.

Focus sensitivity. The template appeals to focus alternatives to determine predicates in the presupposition. Beck 2018 argues that *still*, *noch* are not focus-sensitive. Rather, they tend to occur in environments where focus is likely to occur independently. Beck 2018 points out unlike *nur/only* and *auch/also*, *noch/still* does not appear to be able to associate with focus alternatives within syntactic islands. We provide examples showing that this association is possible for examples where a scale is clearly available for ranking alternatives.

Historical development

Crosslinguistically, aspectual adverbials often have similar etymologies. At the same time, the earlier usage lacks a templatic component, which is expected if the template is available for functional or semi-functional elements.

Repetitives. Historically, we can observe a number of interesting trends in repetitives, including a recurrent pattern of elements which develop ultimately from words meaning “hinder-part” to the adverbial “back” and thence to “again”. This includes Kutchi Gujarati *pacho* “again (repet. & restit.) & back” (see Patel-Grosz & Beck 2014) < OIA. **paśca-* “hinder part” [Turner 1966: #7990] as well as English *back* itself. In the case of English *again*, this word originally meant “back, in the opposite direction” (=OE *ongean*):

(3) “He sceaf þa mid ðam scylde, ðæt se sceaft tobærst, and þæt spere sprengde, þæt hit sprang **ongean**.” [“He shoved then with shield so the shaft burst — the spear broke and sprang **back**.”] (*Battle of Maldon* 137)

Old English *eft* (cognate with modern English *after* and *aft*) also exhibits polysemy analysable as underspecification similar to that found in Hindi *phir* and Nepali *pheri* in their polysemous senses of “then (=after that)” and “again”:

(4) Efterward me ssel þerne mete **eft** chyewe ase þe oxen þet... “Afterward one shall chew this food **again** like the ox that... [repetitive reading]

(5) þone mon **eft** on Cent forbærnde. “That man was afterwards burned in Kent.” [*AS Chron.* 685 (Parker)]

In Hungarian, a non-IE language, the repetitive forms *megint*, *ismét* are etymologically related to *meg* ‘back’.

Repetitives can also be derived from an expression meaning ‘new’ (English *anew*, *afresh*, Spanish *de nuevo*, Hungarian *újra* ‘new+onto’), though English *anew* carries additional pragmatics not found in *de nuevo*.

Hindi *vāpas* “back” on the other hand has not (yet) developed any repetitive senses, and represents loanword from Persian, with the *pās* part being cognate with Old Indo-Aryan **paśca-* “hinder-part” [Platts 1884:1171] (and thus is cognate ultimately with Kutchi Gujarati *pacho*).

Hindi *phir* “then, again”, Nepali *pheri* is related to Hindi *phirnā* “to turn”, which derives from a reconstructed Old Indo-Aryan **phirati* “moves, wanders, turns”, cp. Prakrit *phirai* “goes, returns” (Turner 1966: #9078).

In early Indo-Aryan we find Sanskrit *púnar*, ultimately underlying Nepali *pani* (Nepali *pani* derives from Sanskrit *punar api* “even again; again too; moreover; also” (Turner 1966:#8274)). *Púnar*, itself an aspectual adverbial, is of interest due to being more underspecified than many other examples, polysemous between “back; again; further; (concessive) still”.

Still. English *still* provides an instructive view into historical developments affecting aspectual adverbials. Originally meaning “motionless” (still possible in Mod Eng), it has come in Modern English to have a great range of senses (cf. Ippolito 2007, Beck 2018). From original sense, it developed in the 14th century an additional possible meaning “always” (archaic by the 19th-c.), as in *Thus haue I prov'd Tobacco good or ill; Good, if rare taken; Bad, if taken still*. [1617 R. Braithwait *Smoking Age*]

Only from the 16th-century do we find the modern day temporal *still* sense, e.g. *For as you were when first your eye I eyde, Such seemes your beautie still*. [1609 Shakespeare *Sonnets* civ. sig. G2v]

While the comparative sense appears consistently only from the 18th-c.: *The Woodmongers Abuse. . of a former Charter leaves still less Reason to fear they shou'd succeed*. Concessive *still* likewise only appears from the 18th-century: *'Tis true, St. Giles's buried two and thirty, but still as there was but one of the Plague, People began to be easy*. [1722 D. Defoe *Jrnl. Plague Year* 7]

The reanalysis from “motionless” to “always” results in a temporally-associated adverb, whose denotation we can roughly formalise as:

(6) $\lambda P \forall$ relevant times $t'. P(t')$

Note that unlike the aspectual adverbials this does not involve a presuppositional component. Thus the later 17th-c. re-analysis as a temporal aspectual adverbial still involves a significant change in semantic value.

Thus in all of these examined cases of the development of lexical items into aspectual adverbials, a major semantic shift is involved. None of these involve a sort of gradual semantic change, but rather ‘catastrophic’ reanalyses, whose frequent and crosslinguistic occurrence strongly points to the templatic aspectual adverbial being a universally-accessible semantic chunk.

Extensions. We discuss another possible use of templates, personal and demonstrative pronouns. We also explore the relationship between templates and the standard notion underspecification (Patel-Grosz and Grosz 2017 treat pronouns as involving underspecification, where demonstratives have more structure than personal pronouns). Templates give rise to a type of underspecification where individual lexical items can (a) encode particular choices for parts of the definition such as the identity of the scale involved or (b) have a more general definition, which permits a unique lexical entry with a variety of lexical meanings.

References: BECK, S. 2018. Readings of scalar particles *noch/still*. Ms., Universität Tübingen; IPPOLITO, M. 2007. On the meaning of some focus-sensitive particles. *NLS* 15.1:1–34; KRIFKA, M. 2000. Alternatives for aspectual particles: Semantics of *still* and *already*. *BLS* 26.1:401–412; LÖBNER, S. 1989. German *schon - erst - noch*: An integrated analysis. *L&P* 12: 167–212; PATEL-GROSZ, P. & BECK, S. 2014. Revisiting *again*: The view from Kutchi Gujarati. *Sinn & Bedeutung* 18; PATEL-GROSZ, P. & GROSZ, P.G. 2017. Revisiting pronominal typology. *LI* 48(2): 259–297; TURNER, R.L. 1962–1966. *A comparative dictionary of the Indo-Aryan languages*. OUP.