

When ‘still’ becomes modal: aspectual sources of concessive meanings

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The aspectual adverb *still*, as in *He is still asleep*, has acquired concessive meanings over time (1a) (König & Traugott 1982; Hirtle 1977; Michaelis 1993; Ippolito 2007; Beck 2016, 2019). We show how this observation extends to the Hebrew aspectual adverb *ʕadain*, but crucially (and contrary to what the literature might suggest) not to the apparently closely related aspectual adverbs Hebrew *ʕod* and German *noch*, which disallow concessive readings (1b)-(1c):

- (1) a. Despite my advice against it, she **still**_{concessive} decided to move.
 b. *hi ʕadain/*ʕod hexlita la‘avor dira.*
 she ADAIN/OD decided.F transfer.INF apartment
 ‘She still_{concessive} decided to move.’
 c. *Sie beschloss *noch umzuziehen.*
 she decided NOCH move.INF
 ‘She still_{concessive} decided to move.’

We propose that *still/ʕadain* require, in addition to instantiation of a predicate at the reference time, two additional components: (i) instantiation at a previous time, and (ii) a counterfactual component (cf. Michaelis 1993). We use the two components to explain both synchronic data and diachronic development: on our view the concessive use emerges when component (i) is lost. The development of concessive *still/ʕadain* is shown to be consistent with both a semantic generalization theory (Condoravdi & Deo 2014; Deo 2015) and a constant entailments theory of change (Beck 2012; Beck & Gergel 2015).

Background and proposal. In an attempt to provide a unified theory for *noch* and *still*, Beck (2016, 2019) proposes the following generalized semantics using intervals (temporal and other):

- (2) $[[still/noch]] = \lambda S \lambda x^* \lambda x \lambda P : x^* \prec_S x \ \& \ P(x^*).P(x).$ (Beck 2019)
 In words: interval x^* immediately precedes interval x on the scale S , P holds at x , and it is presupposed that P also holds at x^* .

On this analysis, the difference between *still* and *noch* is in the types of scales they allow, with a lexical restriction against modal scales holding for the German item but not for the English one. To us, the correlation observed in our sample languages suggests a more fundamental distinction: whereas *ʕod* and *noch* are fundamentally additive (Umbach 2009; Greenberg 2012; Thomas 2018), we propose that *still/ʕadain* are ‘stretch-continuative’, involving a counterfactual component:

- (3) $[[still/ʕadain]] = \lambda S \lambda x \lambda P : \exists x^* \prec_S x \ \& \ P(x^*) \ \& \ CF_{int}(P, x).P(x).$
 Where $CF_{int}(P, x)$ is true iff every circumstantially relevant eventuality e before x that would have interfered with P holding at x did not actualize.

Expectations play a role in (3) in the choice of what the attitude holder considers relevant counterfactual interfering eventualities, a choice that depends on his or her background assumptions. This sensitivity explains why it is stranger to say at 2am *She is still sleeping* when speaking of an adult than when speaking of a newborn who we expect to wake up throughout the night. Addressing a concern against an analysis that involves expectations, we point out that since the potential interference is counterfactual, it is not contradictory on our account for the truth of $P(x)$ to actually be expected (cf. *As everyone expected, he was still asleep at 10 am*; Klein 2007; Beck 2019).

Stretch continuatives for us make reference to two points (rather than intervals) in time, requiring a predicate P to hold uninterruptedly between both. The observation that aspectual *still/ʕadain* only combine with stative or habitual (broadly imperfective) predicates falls out as a side effect.

Diachronic development. Focusing on time points rather than intervals also sheds light on what would otherwise seem like an unprincipled historical change in both selectional restrictions, namely the ability to combine with eventive predicates, and the inception of a modal concessive meaning. We propose that the change from aspectual to concessive meaning derives directly from the loss of the conjunct that presupposes the occurrence of P at the earlier time x^* (stroked out in (4)). Once this conjunct is lost, there is no longer an entailment of a stretched out, homogenous occurrence of P , so the requirement for stativity is lost. It immediately follows that concessive *still/ʕadain* can occur with eventive predicates, as in (1), unlike their purely aspectual counterparts.

$$(4) \quad \llbracket \textit{still/ʕadain}_{\textit{concessive}} \rrbracket = \lambda S \lambda x \lambda P : \exists x^* \prec_S x \ \& \ P(x^*) \ \& \ \textit{CF}_{\textit{int}}(P, x). P(x).$$

Since (4) continues to presuppose that circumstantially relevant eventualities that could have interfered with P being true at x did not actually take place, the concessive modal nature of this usage of *still/ʕadain* follows as well.

Theoretical implications for diachronic semantics. Crucially, if P is stative, a lexical entry like (4) gives rise to the same truth conditions as that in (3). This is consistent with the *constant entailments* theory of semantic change (Beck 2012; Beck & Gergel 2015), albeit raising the question of actuation: are forces of simplification at play in semantic change, such that redundant meanings are preferably eliminated? Since the change on our proposal consists of loss of a presuppositional conjunct, the development is also consistent with the *semantic generalization* theory of Condoravdi & Deo (2014) and Deo (2015). The actuation question in this case concerns the conjunct targeted: why is it the temporal component that is lost and not the counterfactual component?

Extension. We believe that a related use of concessive *still/ʕadain* is exemplified by B’s response in the discourse in (5), where the adverbs behave like discourse markers (Maschler 2009): they are clause initial, independent prosodically, and relate to preceding discourse and not event progression (cf. Beck’s 2016 discourse-related *still*, which has a different distribution and interpretation).

- (5) A: She likes stability.
 B: Still, (contrary to what that implies) she decided to move.
 B: *ʕadain/*ʕod, hi hexlita la’avor dira.*
 ADAIN she decided transfer.INF apartment

We explore an analysis, following Beck (2016), in which *still* and *ʕadain* keep their concessive meaning in such cases but occupy a high position (e.g., above the speech act projection), where they combine with an ASSERT head (Krifka 2001, 2013) that embeds the rest of the clause.

Conclusion and open issues. We have proposed that concessive interpretations of ‘still’ are based on a ‘stretchy’ aspectual semantics that includes a counterfactual presupposition of interference. The diachronic data necessitate a fresh look at the development of ‘noch’-type adverbs and how they overlap with the adverbs we have focused on here.

References. Beck, S. 2019. Readings of scalar particles: *noch/still*. *L&P* 43. Beck, S. & Gergel, R. 2015. The diachronic semantics of English *again*. *NALS* 23. Condoravdi, C. & Deo, A. 2014. Aspect shifts in Indo-Aryan and trajectories of semantic change. In *Language change at the syntax-semantics interface*. Greenberg, Y. 2012. Event based additivity in English and Modern Hebrew. In *Verbal plurality and distributivity*. Umbach, C. 2009. Comparatives combined with additive particles: The case of German *noch*. In *Proceedings of Sinn und Bedeutung* 13.