Focus Sensitive Intensifiers in Slavic: Aż/Čak in Contrast to Even and Only

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1. Introduction

The adverbs aż, found in Polish, Czech, Slovak and Russian, and čak found in Bulgarian, Serbian and other South Slavic languages, bear some similarity in meaning to the adverb even, and to the scalar adverb only/merely, but they also differ from even and only in crucial respects. I propose that aż and čak are focus associating adverbs that have scalar semantics, like even and scalar only/merely. However, they are not additive, nor do they necessarily evoke a scale of likelihood or noteworthiness, in contrast to even. Unlike only/merely they place the prejacent high on the contextual scale. I identify three meaning components of aż/čak which typologically place them between scalar additives and scalar exclusives.

2. Like even, like only

The addition of the adverb aż/čak modifies the meaning of the sentence in a way that resembles the contribution of the equivalents of even in Bulgarian (daže) (1), in Polish (nawet) (2), in Slovak (dokonca) (3). (1)-(3) can be translated into English using even.

(1) Govorih čak / daže s Mary. *Bulgarian*
   I talked čak / even with Mary
   ‘I talked even to Mary.’
(2) Rozmawialem aż / nawet z Marią. *Polish*
   I talked aż / even with Mary
   ‘I talked even to Mary.’

1Special thanks are due to Roumi Pancheva for her guidance, judgments about čak and encouragement. I would also like to thank Petr Biskup, Mojmír Dočekal, Věra
(3) Zajtra vydiskutujem to až / dokonca s Igorom. Slovak
tomorrow I.will.discuss it až / even with Igor
‘Tomorrow I will discuss it even with Igor.’

Intuitively, the sentences in (1)-(3) convey that there is something exceptional about talking to Mary/Igor, and this meaning is clearly induced by až/čak as well as the counterparts of even.

However, the following examples illustrate that až/čak are different from even, as they can appear in a set contexts that are incompatible with even:

(4) Prepáčte, že odpisujem až / (*dokonca) teraz. Slovak
excuse that I.answer až / even now
‘I am sorry that I am replying only/#even now.’

(5) Subudih se čak / edva / (*daže) v 6. Bulgarian
I.woke.up refl čak / only / even at 6
‘I woke up only/#even at 6.’

(6) Daneček se vzbudil až / (*dokonce) v 6 ráno. Czech
Dan refl woke-up až / even at 6 am
‘Little Dan woke up only/#even at 6 am.’

Interestingly, in (4)-(6) až/čak can be translated as only or merely in English. (5)-(6) can also be adequately expressed using the phrase ‘no sooner than’, i.e. the person did not wake up before 6. The use of daže/dokonce ‘even’ is infelicitous in the examples above.

Let us note that až is found already in Old Slavic and appears related to daže ‘even’ in contemporary Russian and Bulgarian. Čak seems to be an adaptation of the Turkish çok ‘very’.

I argue that the availability of the even-like and only-like readings illustrated above gain až/čak a special place in the typology of focus sensitive adverbs available cross-linguistically. Crucially, their contribution depends on syntactic focus (Section 3) and the scale of alternatives is contextually specified (as in the case of only, merely and unlike even, whose default is the likelihood scale – Sections 4, 5). As in Tomaszewicz (2012, 2013) I argue that až/čak should be seen as a scalar opposite of scalar only/merely, rather than a sub-species of even (Section
3. Focus association

Aż/čak can appear as sisters to different syntactic constituents with a detectable effect on the meaning. In (1)-(3) the interpretation that the person talked to is significant is the result of aż/čak modifying a PP. In (4)-(6) the time adverbials are modified, while in (7)-(9) the VP is modified with the effect on the meaning that crying/breathing heavily was somehow significant. The domain of association can also be the whole clause as in (10).

(7) Aż / nawet [vp krzyczała] (z bólu). Polish
aż / even she cried from pain
‘She even cried (from pain).’

(8) Ja som až / dokonca [vp kričala] (od bolesti). Slovak
I did až / even cry from pain
‘I even cried (from pain).’

(9) Čak / daže [vp se zaduha] (ot vulnenie). Bulgarian
čak / even refl he breathed-heavily from emotion
‘He even started breathing heavily, (being so emotional).’

(10) Majóweczka u Pepików tuż... až [ip głowa boli] myśleć. Polish
picnic with Czechs soon až head hurts to think
‘The picnic with the Czech friends is coming up. You get a headache just from thinking about it.’

When both subject and IP association yield plausible meanings, an ambiguity arises. The associate determines the implicit comparison with alternatives of the same type. In (11) alternatives are either other people who could tell Ann to stop singing, or other less serious things that may have happened (e.g. the whole auditioning committee laughing).

(11) Anna pela tak ploho, čto až [ip[dp Maria] ej skazala ostanovit'sja]. Anna sang so badly that až Maria her said to stop
‘Anna sang so badly, that out of all things that could happen Maria told her to stop.’
‘Anna sang so badly, that out of all people Maria told her to stop.’

Comparison with alternatives is typical of focus associating adverbs such as *even* and *only*. Focus evokes a set of alternatives, and therefore, the way focus sensitive adverbials modify the meaning of the sentence depends on which constituent is focused.

*Aż/čak* obligatorily associate with focus. Firstly, when focus is present, they cannot associate with a topic. In *Error! Reference source not found.* Janek is the syntactic focus associate of *only* (*only* is standardly taken to associate with focus, e.g. Beaver and Clark 2008, a.o.), and *aż* cannot be used to add the meaning that Janek’s talking to the dean of all people is noteworthy.

(12) **Tylko [Janek]* rozmawiał (*aż*) z rektorem. Polish
only Janek talked *aż* with chancellor
‘Only Janek talked to the dean.’

Secondly, clitic pronouns force a wider domain reading ((13)b vs. (13)a), which shows that *aż/čak* cannot associate with weak (unfocused) pronouns. In (13)b-c *aż* has to associate with the IP/VP or the DP, which can be independently focused (cf. Hoeksema and Zwarts 1997, Beaver and Bradley 2001 on focus association of *only* in Dutch):

(13) a. **Na koniec [dp jemu] gębę obili.** Polish
in end *aż* him face punch
‘In the end, they punched in the face even HIM.’
#‘In the end, they even punched him in the face.’
#‘In the end, they punched him even in the face.’

b. **Na koniec [ip [vp mu gębę obili.] ]**
in end *aż* him face punch
‘In the end, they even punched him in the face.’

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2 In Dutch *alleen* cannot associate with the weak pronoun ‘me’ (H&Z 1997):
(i) **Zo toenden Piet en mij de Amazone, maar alleen mij (*me) toenden**
They showed Piet and me the Amazon, but only me me showed
**ze ook de STEDEN.**
they also the cities.
"In the end, they punched in the face even HIM.'

The above contrasts indicate that aż/čak have to associate with constituents that are focused, i.e. they are focus sensitive the way even and only are. In the next section I illustrate that the meaning contribution of aż/čak involves a scale constructed on the basis of the focal presupposition.

4. Scalarity

4.1 Propositional Alternatives
Focus by itself evokes a contrast set and thus contributes to the reading of noteworthiness, but there is no ordering among the alternatives. E.g. focus in (14)a indicates that of the set of all contextually relevant people, (14)b, it is Maria that Janek talked to, but it is not necessarily the case that Maria is more important than other relevant people.

(14) a. Janek talked to [Maria].
   b. {Janek talked to Maria, Janek talked to Ellen,
      Janek talked to Anna, ...}

Scalar focus associating adverbs both (i) introduce a ranking among the alternatives, and (ii) indicate whether the position of the prejacent proposition on the scale is high or low. Assuming that the presence of focus evokes a set of propositional alternatives, i.e. a set of propositions obtained by substituting the focus-marked expression with alternatives of the same semantic type, e.g. (14)b, the additional presence of a scalar item such as even or merely will impose an ordering on this set.

A scale as in (15)a is appropriate for (15)b-c. Even in (15)b requires Maria to be an unlikely person for Janek to talk to, and hence high on the scale of significance, while merely in (15)c requires Magda to be low on the contextual scale of alternatives. An additional requirement imposed by a scalar particle is the dimension of the scale; noteworthiness
/likelihood in the case of even, and a contextually relevant scale such as importance in the case of merely (further discussed in Section 5).

(15) a. Janek talked to Maria.
    Janek talked to Ellen.
    Janek talked to Anna.
    Janek talked to Magda.

    b. Janek even talked to Maria.
    c. Janek merely talked to Magda.

Aż/čak places the prejacent high on the contextually relevant scale, which is similar to even placing its prejacent high on the scale of noteworthiness. However, even contributes to the meaning of the prejacent proposition only at the level of presupposition, whereas I will show using the standard tests for presupposed vs. asserted content that aż/čak, just like only/merely, contribute to the assertion of the prejacent.

4.2 Aż/čak in comparison to even
Operators like negation, questions or antecedents of conditionals target asserted content (Chierchia & McConnell-Ginet 1990). Embedding a sentence containing nawet under negation, (16), or in a question, (17), shows that nawet, just like even, contributes scalarity solely at the level of presupposition (Karttunen & Peters 1979, Horn 1969, Rooth 1985, 1982). In (16)-(17) three meaning components are identified: assertion (a) and two presuppositions (b-c).

In (16) the prejacent of nawet is targeted by negation – Janek did not talk to the chancellor, (16)a. Additionally, we infer that the chancellor is the least significant person he could talk to, (16)b, and that no other salient alternative is true, (16)c.

(16) Janek nie rozmawiał nawet z rektorem.  
    Janek not talked even with chancellor
    (~) Janek did not talk to the chancellor.
    (~) Janek’s talking to the chancellor is likely/insignificant.  
        [presupposition]
    (~) Janek did not talk to anybody else. [presupposition]
That the latter two components are presupposed is confirmed in (17). Although the orientation of the scale of significance switches, (16)b vs. (17)b, the scalar meaning component is neither targeted by negation nor by a question operator. (Negation with nawet/even has the effect of scale reversal\(^3\), the chancellor is the lowest on the scale of the relevant people in (16), but it is not case that the highest position on the scale is negated, which will turn out to be the case with aż/čak in (19)a).

Similarly, the existence of a salient alternative to the prejacent, contributed by the so-called ‘additive’ component of even (Horn 1969, Karttunen and Peters 1979, a.o.), (16)c and (17)c, is what projects: (16) conveys that Janek did not talk to the chancellor let alone other important people, (17) asks if Janek talked to the chancellor in addition to other important people.

(17) Czy Janek rozmawiał nawet z rektorem?
    whether Janek talked even with chancellor
    \(\sim\) (a) Did Janek talk to the chancellor?
    \(\sim\) (b) Janek’s talking to the chancellor is unlikely/significant.
    [presupposition]
    \(\sim\) (c) Janek talked to somebody else. [presupposition]

Thus, nawet/even have been shown to have a purely presuppositional effect on the meaning. It does not affect the asserted content of the prejacent \(p\), (18)a. It contributes two presuppositions: \(p\) is the least likely among the alternatives (scalarity), (18)b, and a salient alternative to \(p\) is true (additivity), (18)c.

(18) Janek rozmawiał nawet z rektorem.
    Janek talked even with chancellor

\(^3\) For our purposes what it matters is that with nawet/even scalarity is only presupposed, in contrast to aż/čak as demonstrated in (19). On the so-called ‘scope theory’ (originated in Horn 1971, Karttunen and Peters 1979), in negative contexts even takes scope above negation, so that the scale of alternatives is built upon the negated proposition, which is perceived as scale reversal. On the NPI theory (beginning with Rooth 1985) there are two lexical items for even, one occurring in the NPI-licensing contexts and the other one elsewhere.
~ (a) Janek talked to the chancellor. [assertion]
~ (b) Janek’s talking to the chancellor is unlikely/significant. [presupposition]
~ (c) Janek talked to somebody else. [presupposition]

The same tests reveal that aż/čak, in contrast to even, are not truth-conditionally vacuous. Crucially, a negative sentence containing aż/čak does not convey the negation of the prejacent.\(^4\) (19) does not say that Janek did not talk to the chancellor (vs. (16)), but instead it says that Janek talked to someone less important, but not the chancellor, (19)a.

(19) Janek nie rozmawiał aż z rektorem.
Janek not talked aż with chancellor
~ (a) Janek talked to somebody less important than the chancellor.
~ (b) Janek’s talking to the chancellor is significant.[presupposition]
~ (c) Janek talked to somebody at most as important as the chancellor. [presupposition]

(19)a contrasts with even in (16)a, where negation reversed the scale but the position of the person Janek talked to remained at the extreme end of the scale. In (19)a the person Janek talked to is not a the top of the scale, i.e. it is not the chancellor.

The high position of the chancellor on the scale is presupposed, (19)b (similarly to (16)b). It is also presupposed, (19)c, that the alternatives under consideration can be at most as high on the scale as the prejacent, which means for (19) that the top-most relevant alternative is Janek’s talking to the chancellor (while e.g. his talking to the minister of higher education is not even under consideration).

Embedding under a question operator, (20), confirms that aż/čak assert the exclusion of lower alternatives (i.e. Janek’s talking to somebody less important) and presupposes a high position on the scale of alternatives. (20) asks if Janek talked to anybody less important, (20)a, let alone the chancellor who is at the top of the scale, (20)b-c.

\(^4\) The reviewer points out that her/his Russian informants reject aż in negative contexts. The native speakers I consulted all accepted it. In Tomaszewicz (2013) I discuss some aspects of the cross-Slavic variation in the more fine-grained semantics of aż/čak.
Czy Janek rozmawiał aż z rektorem?
whetherJanek talked aż with chancellor
⇒ (a) Did Janek talk to anybody less important than the chancellor?
⇒ (b) Janek’s talking to the chancellor is significant.[presupposition]
⇒ (c) Janek talked to somebody at most as important as the chancellor. [presupposition]

We can conclude that, in contrast to nawet/even, the scalarity of aż/čak is both asserted, (via the exclusion of lower alternatives, (21)a) and presupposed ((21)b-c). Aż/čak assert that no alternative to the prejacent p that is lower on the contextual scale is true (exclusivity), (21)a. It also presupposes that p is high on the contextual scale, (21)b, and that alternatives at most as high as p are under consideration, (21)c.

Janek rozmawiał aż z rektorem.
Janek talked aż with chancellor
⇒ (a) Janek did not talk to anybody less important than the chancellor.
⇒ (b) Janek’s talking to the chancellor is significant.
[presupposition]
⇒ (c) Janek talked to somebody at most as important as the chancellor. [presupposition]

Note that the exclusivity in (21)a together with the presuppositions in (21)b-c, which add that lower alternatives are under consideration, of which talking to the chancellor is the highest on the scale, means that (21) is not false if Janek did talk to somebody lower than the chancellor in addition to the chancellor, but it is false if Janek talked to some less important person but not the chancellor. Therefore, (21) is true if Janek didn’t talk to anybody else, (22), but (18) is not, because nawet contributes additivity.

Janek rozmawiał aż/(#nawet) z rektorem, ale nie rozmawiał
Janek talked aż/even with chancellor but not talked
z nikim innym.
with nobody else
‘Janek talked to somebody so important as the chancellor, but he did not talk to anybody else.’

To contradict the exclusive assertion that the most important person Janek ended up talking to was the chancellor, we need to affirm that he did talk to a person lower on the scale of importance and that this person is the lowest on the scale – hence, in (23) zaledwie/merely needs to be used.

(23) Janek nie rozmawiał aż/(#nawet) z rektorem, a zaledwie
Janek not talked aż/ even with chancellor but merely
z dziekanem.
with dean
‘Janek did not talk to anybody as important as the chancellor, but he merely talked to the dean.’

(23) suggests that aż/čak and zaledwie/merely are exact scalar opposites, whereas nawet/even and zaledwie/merely are not.

4.3 Aż/čak in comparison to merely
That zaledwie/merely is a scalar opposite of aż/čak is demonstrated by using the same tests for asserted/presupposed content. Under negation, the exclusive component in (24)a is exactly the opposite of the component in (19)a.

(24) Janek nie rozmawiał zaledwie z rektorem.
Janek not talked merely with chancellor
¬ (a) Janek talked merely with chancellor.
¬ (b) Janek’s talking to the chancellor is insignificant.
[presupposition]
¬ (c) Janek talked to somebody at least as important as the chancellor. [presupposition]
The two presupposed components of \textit{zaledwie/merely} in (24)b-c are also the scalar opposites of (19)b-c. With \textit{zaledwie/merely} a scale of people more important than the chancellor is under consideration, (24)b-c, while with \textit{až/čak} the relevant scale involves less important alternatives. Embedding in a question, (25), yields the same results.

(25) Czy Janek rozmawiał zaledwie z rektorem?
    whether Janek talked merely with chancellor
    ~ (a) Did Janek talk to anybody more important than the chancellor?
    ~ (b) Janek’s talking to the chancellor is insignificant. [presupposition]
    ~ (c) Janek talked to somebody at least as important as the chancellor. [presupposition]

Thus, \textit{zaledwie/merely} asserts that no alternative to the prejacent p that is higher on the contextual scale is true (exclusivity), (26)a. It also presupposes that p is low on the contextual scale, (26)b, and that alternatives at least as high as p are under consideration, (26)c, (Klinedienst 2005).

(26) Janek rozmawiał zaledwie z rektorem.
    Janek talked merely with chancellor
    ~ (a) Janek did not talk to anybody more important than the chancellor.
    ~ (b) Janek’s talking to the chancellor is insignificant. [presupposition]
    ~ (c) Janek talked to somebody at least as important as the chancellor. [presupposition]

Beaver & Clark (2008) sum up the contribution of \textit{only} as “\textit{contra} expectation, nothing stronger holds” (p. 279). The scalar reversal of each of the meaning components of \textit{only}, yields the interpretation for \textit{až/čak} that can be described as: \textit{contra} expectation, something stronger holds. In the next section I demonstrate that with \textit{až/čak} the scale what is more/less expected is follows from the context (just as with \textit{only/merely}) but need not coincide with likelihood (unlike with \textit{even}).
5. The dimension of the scale

The scale of importance evoked by aż/čak in the previous examples does not have to coincide with a scale of likelihood. With aż/čak, just like with only/merely, the scale is contextually defined, on the basis of the prejacent and the pragmatics of the discourse, while with even the scale can apparently always be related to likelihood.

In (27) even indicates that hiring an average actor is the least likely, yet we are planning to do just that. For aż/čak the salient scale needs to be specified on the basis of ‘actors that we are willing to hire’, but the prejacent ‘we will hire an average actor’ is pragmatically incompatible with being placed high on this scale. Thus, in (27) only even is felicitous. In (28) the context allows for both aż/čak and even, because ‘a famous actor’ is compatible with both a likelihood and a contextual scale.

(27) Zatrudnimy nawet /#aż [przeciętnego]ₖ aktora. Polish
we.will.hire even / aż average actor
‘We will hire even an average actor.’
we.will.hire even / aż world famous actor
‘We will hire even a world-famous actor.’

A parallel example containing zaledwie/merely requires that if the standard is to hire relatively well-known actors, the prejacent needs to be low on the scale with respect to that standard, (29). At the same time, the prejacent does not have to be the least likely thing we are willing to do.

we.will.hire merely average world famous actor
‘We will hire merely an average actor.’

The example in (30) further illustrates the point that the high/low position on the contextual scale is established with respect to some standard. If it is known that eating potatoes for dinner is standard, even it is an unlikely thing to do for Maria, aż is infelicitous because its presupposition that eating potatoes is the highest on the scale clashes
with the background knowledge.

(30) Maria nikogda ne doedaet ves’ obed, no segodnja ona_neva
Maria never not eats up all dinner, but today she
s’ela daže/#až kartošku. Russian
ate even/#až potatoes
‘Maria never eats all of her dinner, but today she even ate up the
potatoes.’

Thus, when our expectations are exceeded but a contextual standard
is not, až/čak are infelicitous.\footnote{In a similar way the English equative can contribute a reading that a contextual
standard is exceeded (Rett 2008). (i) She ate as many as one dozen eggs/(?two eggs) daily.} In contrast to nawet/even, the scalar
contribution of až/čak and only/merely cannot be generalized to
likelihood, which suggest that the (i) dimension of the scale, as well as
(ii) the position of the prejacent on the scale and (iii) the condition on the
alternatives (excluded or existentially presupposed) are independent
factors in the typology of scalar propositional operators.

6. Conclusion

I have shown that až/čak are focus associating adverbs like even and
only/merely, and can also be analyzed as taking propositional scope at
LF, where the set of propositional alternatives is established in
accordance with the focus-induced presupposition.

Až/čak contribute scalarity to the meaning of the prejacent by
operating both at the level of the assertion and at the level of
presupposition. Their three meaning components are exact scalar
opposites of the components contributed by only/merely. Až/čak (i) assert
that no lower alternative to the prejacent proposition is true, (ii)
presuppose that on the contextual scale of alternatives at most the
prejacent is true, and (iii) presuppose that the prejacent is high on the
scale.\footnote{Some cross-Slavic differences in the use of až/čak are discussed in Tomaszewicz
(2013).}

Only/merely (i) assert that no higher alternative to the prejacent is
true, (ii) presuppose that on the contextual scale at least the prejacent is true, and (iii) presuppose that the prejacent is low on the scale, (Klinedinst 2005).

The presupposition of aż/čak that the prejacent has a high position on the scale is similar to the scalar presupposition of even that places the prejacent low on the scale of likelihood, and hence high on the scale of noteworthiness, therefore in some contexts the two particles are interchangeable. However, aż/čak allow for scales of more specific, context dependent dimensions, and some of these scales are incompatible with even. Moreover, even, in contrast to aż/čak and only/merely contributes to the meaning of the prejacent solely at the level of presupposition.

Even presupposes (i) that the prejacent is low on the scale of likelihood, and (ii) that some alternative on the scale is true. The latter, so-called additive presupposition, contrasts with the exclusivity contributed by aż/čak, which, as I have shown, accounts for a range of contexts where the two are not interchangeable.

I conclude that aż/čak should be seen as scalar opposites of scalar only/merely, rather than a sub-species of even. Giannakidou (2007) identifies specific meaning components that classify the members of the family of EVENs: the scalar dimension (likelihood vs. contextual scale), scale structure (low vs. high position of the prejacent on the scale), conditions on alternatives (additivity vs. exclusion). My analysis of aż/čak suggests that cross-linguistically we can expect to find scalar adverbs that belong to both a family of EVENs and a family of exclusives.

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