Focus Sensitive Intensifiers in Slavic: *Aż*/*Čak* in Contrast to *Even* and *Only*[1]

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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 adverbs *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* / *daž*e s Mary. *Bulgarian*
    I.talked *čak* / *even* with Mary
    'I talked even to Mary.'
(2) Rozmawiałem *aż* / *nawet* z Marią. *Polish*
    I.talked *aż* / *even* with Mary
    'I talked even to Mary.'

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(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 *aż*/*čak* as well as the counterparts of *even*.

However, the following examples illustrate that *aż*/*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) *aż*/*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 abova gain *aż*/*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 *aż*/*čak* should be seen as a scalar opposite of scalar *only*/*merely*, rather than a sub-species of *even* (Section

4).

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 *aż / 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... *aż* [$_{IP}$ głowa boli] myśleć. *Polish*
      picnic   with Czechs soon *aż*   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.'

Russian

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$_F$] rozmawiał (#*aż*) z rektorem. *Polish*
       only Janek t alked   *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[2]):

(13) a. Na koniec *aż* [$_{DP}$ 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 *aż* [$_{IP}$ [$_{VP}$ 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) Ze toonden Piet en mij de Amazone, maar *alleen* mij (*me) toonden
     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.'

  c. Na koniec *aż* mu [_DP_ gębę] obili.

     in end   *aż*   him   face   punch

     'In the end, they punched him even in the face.'

    #'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]_F.

    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 <u>Maria</u>.
           Janek talked to Ellen.
           Janek talked to Anna.
           Janek talked to <u>Magda</u>.

    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.   *Polish*
     Janek not   talked   even with chancellor
    ⤳ (a) Janek did not talk to the chancellor.
    ⤳ (b) Janek's talking to the chancellor is likely/insignificant.
        [presupposition]
    ⤳ (c) 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 19 69, 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
    ⤳ (a) Did Janek talk to the chancellor?
    ⤳ (b) Janek's talking to the chancellor is unlikely/significant.
            [presupposition]
    ⤳ (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

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[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' (orginated 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.

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[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*.

(20) 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.

(21) 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.

(22) 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   nottalked   *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 to somebody 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]

The two presupposed components of *zaledwie*/*merely* in (24)b-c are also the scalar opposites of (19)b-c. With *zaledwie*/*merely* a scale of people more important than the chancellor is under consideration, (24)b-c, while with *aż/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, *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 *only* as "*contra* expectation, nothing stronger holds" (p. 279). The scalar reversal of each of the meaning components of *only*, yields the interpretation for *aż/čak* that can be described as: *contra* expectation, something stronger holds. In the next section I demonstrate that with *aż/čak* the scale what is more/less expected is follows from the context (just as with *only*/*merely*) but need not coincide with likelihood (unlike with *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]$_F$ aktora.   *Polish*
      we.will.hire even / *aż*   average   actor
      'We will hire even an average actor.'
(28) Zatrudnimy *nawet* / *aż* [światowej sławy]$_F$ aktora.
       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.

(29) Zatrudnimy *zaledwie* [przeciętnego]$_F$/#[światowej sławy]$_F$ aktora.
       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
    Maria never   not eats.up all dinner, but today she
    s"ela *daže/#až* kartošku.   *Russian*
    ate   even/#*aż* 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, *aż/čak* are infelicitous.[5] In contrast to *nawet/even*, the scalar contribution of *aż/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 *aż/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.

Aż/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*. *Aż/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.[6]

Only/merely (i) assert that no higher alternative to the prejacent is

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[5] 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.
[6] Some cross-Slavic differences in the use of *aż/čak* are discussed in Tomaszewicz (2013).

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 *EVEN*s: 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 *EVEN*s and a family of exclusives.

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