

Class 4: Additive *od* (/more_{add}) – A degree-based analysis

(Based on Greenberg 2010, 2012, 2013, Thomas 2010, 2018)

And a comparison with the discourse-based analysis of *noch*

(Based on e.g. Umbach 2010, Grubich 2018)

Introduction:

- In class 1 we gave an introduction to additive particles (*also / auch*), a scalar particle (*only*) and two types of particles which were called in the literature scalar additive particles (*even* and *noch / od / more_{add}*)
- In class 2 we spoke about *even* and discussed its (non-existing) additivity and its scalarity
- In class 3: Carla Umbach presented a discourse-management approach of *noch*
- Today (class 4): we want to do two main things:
 - First, to present a degree-based approach to *od / more_{add}* (Based on Greenberg 2010, 2012, 2013, Thomas 2010, 2018)
 - Second, to make some comparison between this approach with the discourse-management approach presented in class # 3

Additive *od* (/more_{add}) – A degree-based analysis

• Roadmap:

- Part 1: Some basic data
- Part 2: Some interesting constraints on *od / more_{add}*
(compared to *gam / also / too*)
- Part 3: The proposal: A degree-based analysis of *od / more_{add}*
- Part 4: How the degree-based analysis accounts for the constraints on *od / more_{add}*
- Part 5: Conclusion: What the analysis can tell us about
 - the difference between *od / more_{add}* vs. *gam / also / too*,
 - and vs. comparative *more*

Part 1: Some basic facts about *od / more_{add}*

Some basic facts about additive *od*

- Hebrew *od* can function as the temporal *still*-like particle
 - Alongside the unmarked particle *adayin*:
 - (1) *Dani adayin / od yashen*
"Danny is still asleep"
- But, unlike *adayin* it also has an additive use, similar to additive *noch*:
 - (2) *dani axal shlosa tapuxim. Axar kax hu axal od shney tapuxim*
"Danny ate three apples. Later on he ate **another two / two more** apples"

I will translate Hebrew additive *od* into English as additive *more* - *more_{add}*:

- Notice: Theories investigating *more* usually focus on its comparative use:
 - (1) a. *John is (3cm) taller_{comp} than Bill*
b. *John ate now (3) more_{comp} apples than (the two) he ate before*
(= John ate now 5 apples. Today he ate 7)
- But – the additive use of *more* - *more_{add}* - has been much less investigated (Greenberg 2009, 2010, 2013, Thomas 2010, 2018):
 - (2) *John ate 2 apples in the morning. Now he ate (3) more_{Add} apples.*
(=John ate now 3 apples. Today he ate 5)

Od as additive *more*



- This type of *more* is what Oliver Twist used (in Chalse Dickens's novel):
- "...he was desperate with hunger, and reckless with misery. He rose from the table; and advancing to the master, basin and spoon in hand, said: somewhat alarmed at his own temerity:
"Please, sir, I want some **more**."

So, Hebrew *od* can be translated as *more_{add}*

- Hebrew is not alone: In many other languages *more_{add}* is lexicalized as a *still*-like particle:
 - Chinese,
 - Spanish,
 - French,
 - Slovenian,
 - Russian,
 - German
 -
- But... does additive *od* (and its cross linguistic correlates) really have the same semantics as additive *more*?
 - This is a question we will hope to discuss ☺

Additive *od* can have both a ‘nominal’, as well as an adverbial uses:

• ‘Nominal’ uses:

(1) dani axal 3 tapuxim / shata 3 liter mayim. Axar kax hu axal shata **od** (2)
“Danny ate 3 apples / drank 3 liters of water. Later he ate / drank 2 more / some more”

• ‘Adverbial’ uses:

(2) dani rac 3 sha’ot /kilometer /pe’amim. axar kax hu rac od (2 kilometer /shaot /pe’amim)
“Danny ran for 3 hours / 3 kilometers / 3times. Later he ran for 2 more (hours / kilometers / 3 more times / some more”

• Both uses are subject to interesting constraints

• We will compare these to what happens with *gam / too / also*

Part 2: Constraints on *od* */more_{add}*

(compared to *gam / also too*)

Constraint # 1: Distinct / non-overlapping sets:

• With ‘nominal’ additive *od / more_{add}* sets of individuals in the denotation of the asserted and presupposed nouns must be distinct:

(1) haboker higiu 3 studentim. ba-caharyim higiu **od** 3 studentim
“3 students arrived in the morning. 3 more arrived at noon”
(morning students \cap noon students = \emptyset .- 6 students altogether)

• In contrast, with *gam* (‘too’) the sets can overlap:

(2) haboker higiu 3 studentim. **gam** ba-caharyim higiu 3 studentim
“3 students arrived in the morning. At noon 3 students arrived too”
(morning students \cap noon students $\neq \emptyset$. Perhaps less than 6 students altogether)

Constraint # 2: Type of measure phrases:

• Nominal *more_{add}* can be modified by by measure phrases like *2 liters, 2 kilos*, but not by measure phrases like *12 carat, 10 degrees*:

• *Also / too* is not subject to this constraint:

- (1) a. John drank 2 liters of water, and then 2 liters **more_{add}**.
b. I've already bought 3 kilos of potatoes. I will buy 3 kilos **more_{add}** later on.
- (2) a. Yesterday John bought 10 carat gold. #Today he bought 10 carat gold **more_{add}**
(cf. Today he **also** bought 10 carat gold)
b. 30 degree Celsius water was spilled on the carpet. #30 degree Celsius **more_{add}** was spilled on the bed
(cf. 30 degree Celsius water were **also** spilled on the bed)

- Notice: this constraint is syntactically inapplicable to Hebrew *more_{add}*

Constraint # 3: With *od / more_{add}* it is easier to add 'forward' than 'backward'.

- This holds mainly for 'adverbial' uses:

- (1) a. Ha-boker dani saxa 3 shaot. Axar ha-caharayim hu saxa **od** (3 shaot) / **gam** (3 shatot)
"This morning Dany swam for 3 hours. In the afternoon he swam 3 hours / some **more_{add}** / he **also** swam (3 hours)"
- b. Axar ha-caharayim dani saxa 3 sha'ot. Ha-boker hu saxa **od** (3 shaot) / **gam** (3 shaot)
"In the afternoon Dany swam for 3 hours. This morning he swam 3 hours / some **more_{add}** / He **also** swam"

- But to some extent also with the nominal use:

- (2) a. etmol dani raa tankim . hayom hu raa **od** tankim/ hayom hu **gam** raa tankim.
"Yesterday Danny saw tanks . Today he saw (some) **more_{add}** tanks/ Today he **also** saw tanks
- b. Hayom dani raa tankim . Etmol hu raa **od** tankim/ etmol hu **gam** raa tankim.
"Today Danny saw tanks . Yesterday he saw (some) **more_{add}** tanks/ Yesterday he **also** saw tanks

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Constraint # 4: Constrained variability between the anaphor and the 'prejacent':

- The agents in the prejacent and the anaphor can easily differ

- (1) Dani afa et ha-uga be-meshex shaa. rina afta ota **od** kcat
"Danny cooked the cake for an hour. Rina cooked it a bit **more_{add}**".
- (2) Dani riayen 3 studentim. Rina riayna **od** 2
"Danny interviewed 3 students. Rina interviewed 2 **more_{add}**".

Constraint # 4: Constrained variability between the anaphor and the 'prejacent':

- But crucially, not anything goes:

- (1) a. rina yashna 3 sha'ot. #Sara yashana **od** 3 sha'ot
"Rina slept for 3 hours. # Sara slept for 3 **more_{add}** hours"
- b. rina yalda 3 pe'amim. # Sara yalda **od** 3 pe'amim
"Rina gave birth three times. # Sara gave birth three **more_{add}** times".
- c. (Context: Danny and Rina are dating. Danny tells Rina he has 3 white cats):
Rina: eize me'anyen. #Li yesh od 3 xatulim levanim!
Oh! How interesting! #I have 3 **more_{add}** white cats!

Constraint # 4: Constrained variability between the anaphor and the 'prejacent':

- In contrast to *od / more_{add}, gam / also / too* is perfectly OK with such variations:

- (1) a. rina yashna 3 sha'ot. Sara **gam** yashana 3 sha'ot
"Rina slept for 3 hours. Sara **also** slept for 3 hours"
- b. rina yalda 3 pe'amim. Sara **gam** yalda 3pe'amim
"Rina gave birth three times . Sara **also gave** birth three times".
- c. (Context: Danny and Rina are dating. Danny tells Rina he has 3 white cats):
Rina: eize me'anyen. **gam** l i yesh 3 xatulim levanim!
Oh! How interesting ! I have 3 white cats **too!**

- Why? Why does it easy to 'add' here hours, times, white cats with **gam / too / also** but not with **od / more_{add}**?

➤ See suggested answer below!

Constraint # 4: Constrained variability between the anaphor and the ‘prejacent’:

- Notice: The constraint concerns also variations between predicates:
- In some cases predicates can vary with *od* / *more_{add}*:
 - (1) a. Dani *halax* be-meshex sha'a. axar kax hu *rac* **od** 30 dakot
"Danny *walked* for an hour. Then he *ran* for 30 more minutes".
 - b. Dani *kana* 3 ugot la-mesiba. axar kax hu *afa* **od** 2 ugot
"Danny bought 3 cakes for the party. Later on he baked 2 more cakes"
- But in other cases such variations make *od* / *more_{add}* is bizarre:
 - (2) a. rina *yashna* 3 sha'ot. # Axar kax hi *raca* **od** 3 sha'ot
"Rina slept for 3 hours. # Then she ran for 3 *more_{add}* hours"
 - b. Dani *kana* 3 ugot la-mesiba. # axar kax hu *axal* **od** 2 ugot
"Danny bought 3 cakes for the party. # Later on he ate 2 *more_{add}* cakes"

Constraint # 4: Constrained variability between the anaphor and the ‘prejacent’:

- **How can we characterize this constraints?**
 - In all the cases above it seems that we are trying to add events which are – in some sense – **unrelated** to each other :
 - Two events of sleeping for 3 hours / giving birth 3 times by different people
 - Two states of having 3 white cats
 - Events of sleeping and of running for 3 hours
 - Baking 3 cakes cake and eating them
 - Etc.
 - Perhaps the events in the anaphor are simply not ‘relevant’ enough to go into the set C of alternatives to the prejacent? (Cf. Thomas 2010)
 - No – various focus sensitive particles can work with such ‘unrelated’ events:
 - E.g. *also* / *too* (see examples above), as well as *only*:
 - (1) Rina gave birth 3 times. Sara gave birth only 2 times

Constraint # 4: Constrained variability between the anaphor and the ‘prejacent’:

- A suggestion: The anaphoric event should be contextually ‘summable’ with the asserted one
- ‘Contextually summable’: Summing up the two eventualities should ‘matter’ for an increase of another salient measurement
- As a support, compare (1) and (2):

- (1) (Context: Taking about friends in the academia, who are busy writing papers)
dani katav 3 ma'amarim. #Rina katva **od** 3 ma'amarim (cf. Rina **gam** katva 3 ma'amarim)
"Danny wrote 3 papers. #Rina wrote 3 *more_{add}* papers" (cf. Rina wrote 3 papers **too**)
- (2) (Context: John and Mary work in the same research project, and they are supposed to write the annual report.
dani katav 3 ma'amarim. Rina katva **od** 3 ma'amarim
"Danny wrote 3 papers. Rina wrote 3 *more_{add}* papers"

Constraint # 4: Constrained variability between the anaphor and the ‘prejacent’:

- A similar thing happens in the following examples:
 - (1) Afiti 7 ugot le-mesiba shel ha-ben sheli. #Isha she-ani makira be-Paris afta **od** 7 ugot la-mesiba shel ha-ben shela (cf..... **gam** afta 7 ugot la-esiba shel ha-ben shela)
"I baked 7 cakes for my son's party. #A woman I know in Paris baked 7 *more_{add}* (cakes) for her son's party" (cf. A woman I know in Paris **also** baked 7 cakes for her son's party)
 - (2) (Context: Some rich man suggests donating a certain sum of money for poor children for every birthday cake baked in the world)
Afiti 7 ugot le-mesiba shel ha-ben sheli. Isha she-ani makira be-Paris afta **od** 7 ugot la-mesiba shel ha-ben shela
"I baked 7 cakes for my son's party. A woman I know in Paris baked 7 *more_{add}* (cakes) for her son's party"

Constraint # 4: Constrained variability between the anaphor and the ‘prejacnet’:

- In both these cases the contexts which lead to the improvement license a comparative-correlative construction:
 - (1) The more papers are written (for the research project), the more funding we get / the better the Dean thinks of the projects, etc.
 - (2) The more cakes are baked, the more money we have for poor children.
- In contrast, without such contexts, we cannot form a good comparative correlative
 - And the same holds for the rest of the odd examples with *od / more_{add}*
 - Again: Notice that *gam / also / too* is not subject to this constraint:
 - It does not have to do with summing measurements of events
 - But in saying that there is another event, similar / parallel enough to the one denoted by the prejacnet.

Questions? / Comments?



Part 3: The proposal: A degree-based analysis of *od / more_{add}*

The basic intuition about additive *od / more_{add}*

- Additive *od / more_{add}* lexicalize an **additive measure function on eventualities**:
- Intuitively, a sentence with additive *od / more_{add}* asserts the existence of an eventuality (called e_1), which **enlarges** a presupposed anaphoric eventuality (called e_2^c) in an additive way:
 - so that the degree measuring the summed eventuality $e_1 \oplus e_2$ equals the sum of the degrees measuring each of the subevents (e_1 and e_2)
- The ‘enlargement’ can be made on various dimensions measuring the events:
 - enlarging the temporal length, as in e.g. *I ran for 3 more hours*
 - enlarging the spatial length, as in e.g. *I ran for 3 more kilometers*
 - Enlarging the cardinality, as in e.g. *I ran for 3 more times*
 - Enlarging the set of e.g. agents of the event, as in e.g. *3 more people spoke with John*

For example:

(1) ba-boker dani rac 3 sha'ot. Ba-cohorayim hu rac od (2 shaot)

in-the morning Danny ran 3 hours. At-noon he ran more 2 hours

"In the morning Danny ran for 3 hours. At noon he ran for 2 more hours"

- Asserted eventuality - e_1 : At noon Danny ran for 2 hours
- Presupposed anaphoric eventuality - e_2 : *In the morning Danny ran for 3 hours*
- The use of *more_{add}* conveys that the asserted eventuality, e_1 'enlarges' a presupposed eventuality, e_2 , in an additive way:
- In this case this is done by enlarging the **length of the run time** of the events:
 - The temporal length of e_1 - the noon-running (2 hours) is summed with the temporal length of morning running (3 hours)
 - so the temporal length of the summed eventuality - $e_1 \oplus e_2$ - is 3+2 hours = 5 hours.

More precisely: A lexical entry to *od* / *more_{add}*

$$(1) \quad ||od||^{B,C} = ||more_{add}||^{B,C} =$$

$$\lambda d_1. \lambda \mu_{\langle d, \langle vt \rangle \rangle}. \lambda P_1 \langle vt \rangle. \lambda e_1. \exists P_2, d_2 P(e_2^c) \wedge \mu(e_2^c) = \langle d_2, units \rangle:$$

$$(P_1)(e_1) \wedge \mu(e_1) = \langle d_1, units \rangle \wedge \mu(e_1 \oplus e_2^c) = \langle d_1 + d_2, units \rangle$$

- In prose:
- *more_{add}* combines with a degree, d_1 , a measure function on eventualities, μ , a predicate of eventualities, P_1 and an eventuality e_1 .
- There is one presupposition:
 - A contextually supplied eventuality (the anaphor) e_2^c , is in the extension of some predicate P_2 , and the measurement of this anaphor eventuality whose measurement is d_2 units.
- There are two assertions:
 - (a) the measurement of e_1 (which is in P_1) is d_1 units,
 - (b) The measurement of the sum of eventualities $e_1 \oplus e_2^c$ equals the sum of the measurements of each of these eventualities, i.e. it equals $d_1 + d_2$

An illustration:

(1) dani rac **od** 3 kilometer – Danny ran 3 **more_{add}** kilometers

(2) [Danny [ran [[od 3] kilometers]]] [Danny [ran [[3 more] kilometers]]]

- Here the measure function (μ) measures spatial length of the spatial path of events:

$$\exists d_2 P(e_2^c) \wedge \mu_{\text{spatial length}}(h_{\text{spatial path}}(e_2^c)) = \langle d_2, kilometers \rangle:$$

$$\exists e_1 \text{Ran}(e_1) \wedge \text{Agent}(e) = j \wedge \mu_{\text{spatial length}}(h_{\text{spatial path}}(e_1)) = \langle 3 \text{ kilometers} \rangle \wedge$$

$$\mu_{\text{spatial length}}(h_{\text{spatial path}}(e_1 \oplus e_2^c)) = \langle 3 + d_2, kilometers \rangle$$

- In prose: (1) presupposes The measurement of the spatial length of the spatial path of a contextually given event e_2^c is some d_2 kilometers.
- It asserts that (a) The measurement of the spatial length of the spatial path of e_1 (the preadjacent event) is 3 kilometers. And (b) The measurement of the 'superevent', which is made of the sum of e_1 and e_2^c is $\langle 3 + d_2, kilometers \rangle$

Part 4:

How the proposal can account for the data

And what it tells us about the difference between

od / *more_{add}* and *gam* / *also* / *too*

Accounting for the data 1: The constraint on non-overlapping sets

- (1) [haboker](#) [higiu](#) 3 studentim. [ba-caharyim](#) [higiu](#) **od** 3 studentim
“3 students arrived in the morning. 3 more arrived at noon”
(morning students \cap noon students = \emptyset . - 6 students altogether)
- This follows from the requirement that $\mu(e_1 \oplus e_2^c) = \langle d_1 + d_2, \text{units} \rangle$
 - if even one of the students that arrived this morning is also a student that arrived this evening, then the number of students participating in e_3 is not $3+3=6$. I.e. the additivity assertion fails.

Accounting for the data 2: The constraint on measure phrases

- (1) John drank 2 liters of water, and then 2 liters **more_{add}**.
(2) 30 degree Celsius water was spilled on the carpet. **#30** degree Celsius **more_{add}** was spilled on the bed
- [Krifka \(1998\)](#) and [Schwarzschild \(2002, 2006\)](#):
 - *degrees Celsius* is nonadditive, since 3 degrees water + 10 degrees water \neq 13 degrees water. In contrast, *liters* is additive since 3 liters of water + 2 liters of water = 5 liters of water.
 - The distinction was observed to affect the felicity of ‘pseudo partitives’:
- (3) a. 3 liters of water / 3 kilos of potatoes
b. **#30** degree Celsius of water / **# 12** carat of gold
- It can now also explain the contrast in (1) and (2): The additive requirement on the summed eventuality can only be met with e.g. *liters* but not with *degrees Celsius*

Accounting for the data 3: The constraint on adding forward

- (1) a. [Ha-boker](#) dani saxa 3 shaot. [Axar ha-caharayim](#) hu saxa **od**
“This morning Dany swam for 3 hours. In the afternoon he swam **some more_{add}**”
b. [Axar ha-caharayim](#) dani saxa 3 sha’ot. [Ha-boker](#) hu saxa **od**
“In the afternoon Dany swam for 3 hours. [This morning](#) he swam **some more_{add}**”
- **A suggestion:** The operation of *od / more_{add}* leads to a higher degree on the relevant scale (of temporal length / spatial length / cardinality of events / cardinality of participants in the event) than any of its sub-events.
 - cf. [Thomas 2018](#) ‘rising scale segments’ idea
 - Following ideas in [Krifka 2000](#), [Umbach 2009, 2012](#): This rise of the degree on the scale tends to naturally be aligned with the time scale:
 - So the ‘enlargement’ indicated by *od / more_{add}* is more natural with moving forward on the time scale.
 - But – this is just a tendency, which can be rather easily overridden.
 - E.g. when we explicitly ask in advance: “How much did you swim today?”

Accounting for the data 4: The constraint on variability of presupposed and asserted eventualities

- Remember the infelicity of *od / more_{add}* in (1), where the asserted and presupposed events felt too ‘unrelated’:
- (1) a. [rina](#) yashna 3 sha’ot. **#Sara** yashana **od** 3 sha’ot
“[Rina](#) slept for 3 hours. **# Sara** slept for 3 **more_{add}** hours”
b. [rina](#) yalda 3 pe’amim. **# Sara** yalda **od** 3 pe’amim
“[Rina](#) gave birth three times. **# Sara** gave birth three **more_{add}** times”.
c. (Context: Danny and Rina are dating. Danny tells Rina he has 3 white cats):
[Rina](#): eize me’anyen. **#Li** yesh **od** 3 xatulim levanim!
Oh! How interesting! **#I** have 3 **more_{add}** white cats!

Accounting for the data 4: The constraints on variability of presupposed and asserted eventualities

- We suggested that Summing up the two eventualities should ‘matter’ for an increase of another salient measurement:
 - (1) (Context: Taking about friends in the academia, who are busy writing papers)
dani katav 3 ma’amarim. #Rina katva **od** 3 ma’amarim
“Danny wrote 3 papers. #Rina wrote 3 **more_{add}** papers”
 - (2) (Context: John and Mary work in the same research project, and they are supposed to write the annual report.
dani katav 3 ma’amarim. Rina katva **od** 3 ma’amarim
“Danny wrote 3 papers. Rina wrote 3 **more_{add}** papers”
- We also suggested that the felicity of *od / more_{add}* here correlates with the felicity of a **comparative correlative**:
- (3) The more papers are written (for the research project), the more funding we get / the better the Dean thinks of the projects, etc.

Part 5: Conclusion

Accounting for the data 4: The constraints on variability of presupposed and asserted eventualities

- A suggestion: We can try and derive this constraint from the requirement for a non-vacuous operation of *od / more_{add}* (cf. Crnic 2011 for the general need of such a constraint):
- Summing eventualities and measuring the summed eventuality is easy: It can be done with practically any two events (which can be measured by the same measure function), even clearly 'unconnected' ones.
- But then, the use of *od / more_{add}*, whose main operation is to additively measure the sum of an asserted and presupposed eventuality, can be seen as vacuous or trivial.
- Thus, the presence of *od / more_{add}* is only felicitous when the additive measurement can be taken to be nonvacuous or not trivial,
- This happens when the rising of degrees in the measurement scale correlates with a rise on another salient measurement in the context.
 - (Cf. Greenberg 2015, 2018 on similar modal mapping between scales in the scalar presupposition of *even*)

Part 5: Conclusion

- We looked at Hebrew additive *od* and English *more_{add}* and at a number of constraints it obeys, compared to the additive *gam / too*
- We argued that all of these constraints can be derived from the fact that the basic operation of *od / more_{add}* is to lead to an enlargement of an anaphoric eventuality
- This is done by **summing up** the ‘prejacent’ / asserted eventuality with the anaphoric one
- and moreover – by **adding up their measurements**, so we end up not only a pluralized eventuality, but one with a higher degree on a relevant scale measuring the eventuality.

Part 5: Conclusion

- Thus we always end up with an eventuality which is ‘larger’
- This can be in virtue of
 - Being temporally longer (*I ran 30 minutes more*)
 - Being spatially longer (*I ran 3 kilometers more*)
 - having a higher cardinality (*I ran 3 times more*)
 - having a higher cardinality of participants
 - With agents (*3 more students arrived*) / With themes (*I ate 3 more apples*), etc.

Part 5: Conclusion

- Importantly: in many cases *od / more_{add}* can appear with no overt degree expression, and no indication of the dimension of measurement:

(1) *...ha-yom racti od*

“...Today I ran some more “

(2) *...shatiti od bira*

I drank (some) more beer

- But crucially, even in such cases *od / more_{add}* have a degree argument:
 - This degree is existentially quantified,
- In (1) the dimension of the scale / measurement is left unspecified:
 - Can be temporal length / spatial length / cardinality of events
- With (2) – the dimension is unspecified as well
 - Can be glasses of beer / liters of beer / etc.

Part 5: Conclusion

- Importantly- This means that *od / more_{add}* **always operate on degrees along scales**, and measures eventualities in terms of these degrees and scales
 - Crucially – even when we don’t see any such degree or measurement expression
- This claim can now help us understand the difference between the type of additivity expressed by *od / more_{add}* and that of *gam / too / also*:
 - *od / more_{add}* ‘**add**’ in the sense of ‘adding up to a larger whole’ (cf/ König (1991) on *noch*), so we end up with an increase on the scale
 - *Gam / also / too* ‘**add**’ in the sense of pointing out that there is another – parallel / similar enough alternative which is true
 - Hence – it is not subject to all the constraints on summing up and on measurement

Part 5: Conclusion

- In this sense, calling both types of expressions ‘additive’ is not finely grained enough:
- Better names?
 - *Od / more_{add}* - **incremental additive** operators (cf. Thomas 2010)
 - *Gam / also / too*: **existential** additive operators
 - Notice: *Even*-like particles with an ‘additive’ presupposition are ‘existential additives’
 - So – ‘**scalar additive**’ is not finely grained enough either

Part 5: Conclusion

- **This also means that for *od* / *more_{add}* the additivity and scalarity are not independent of each other** (cf. Miashkur & Greenberg 2019)
 - The very ‘incremental additive’ operation **adds** (sums) –
 - and by doing that time it leads at the same to ‘enlargement’ on a dimension – i.e. to an increase on the **scale**
- **In contrast for *even*-like operators which are ‘additive’ – additivity and scalarity are independent of each other:**
 - Their scalarity does not concern truth
 - Their additivity is ‘existential’ and not inherently scalar
 - Indeed – as we showed earlier, there are many *even*-like operators are unspecified for additivity or are even exclusive (cf. Miashkur 2018, Miashkur & Greenberg 2019)

A question: Is *od* indeed the same as *more_{add}*?
And what about comparative *more*?

- Remember that *od* is basically / originally / also a *still*-like operator (*dani od yashen* – *Danny is still asleep*)
- If so, how is it connected to *more_{add}*? And how are the two related to comparative *more*?
 - This is especially worrying if *od* / *still* is analyzed as a focus sensitive particle. Clearly comparative *more* as well as additive *more* are not focus sensitive.
 - **But – it may be better to think about *still* not as focus sensitive, but as alternative sensitive due to its triggering a scale (Beck 2019)**
 - **The very triggering of a scale leads to triggering alternatives to the preajcent**
 - (cf. also Chierchia 2013 on alternative sensitive expressions)

A question: Is *od* indeed the same as *more_{add}*?
And what about comparative *more*?

- More empirically:
- - Greenberg 2010 / Thomas 2028: In English too *more* can be used to express a *still*-like reading under negation: *I didn't sleep anymore*
- Thomas 2018: A cross linguistic study on languages using / not using the same lexical items to encode:
 - Continuation (*John is still asleep*)
 - Additivity: (*John slept some more*)
 - Comparison: (*John slept more than Bill*)
- Thomas's suggestion: What all three operations share is expressing a rising scale segment

Questions? / Comments?

