Alternative types and the semantics of exclusive intensifiers

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Exclusive Intensifiers in many languages possess multiple semantic functions in their adverbial uses. For example, Mandarin exclusive adverbial *ziji* 'self' can convey the three meanings below:

(1) A: Did Lisi send the letter for Zhangsan?
    B: Meiyou,   Zhangsan **ziji** ji-le xin   non-delegation reading
        No,   Zhangsan ZIJI send-PERF letter
        'No, Zhangsan sent the letter himself.'

(2) A: All the team members wrote the team assignments together.
    B: Cai bu-shi,   Zhangsan changchang   **ziji** xie   xiaozu
        zuoye   *alone*-like reading
        CAI not-true,   Zhangsan often   ZIJI   write   team
        assignment
        'It's not true. Zhangsan often wrote team assignments alone.'

(3) Meiyou-ren re,   Zhangsan momingqimiaodi   **ziji**   ku
        le   anti-causative reading
    No-one provoke,   Zhangsan inexplicably   ZIJI   cry
        PERF
    'No one provoked him. Inexplicably, Zhangsan cried by himself.'

In addition to Mandarin *ziji*, the Hungarian reflexive marker *magá* 'self' and Indonesia *sendiri* 'self' also have the above three different uses, as pointed in Liao (2018) and Sipayung (2019) respectively. Furthermore, some intensifiers such as English *x-self* and German *selbst* 'self' are also used to convey all the readings, except that they have to take a preposition, forming *by x-self* and *von selbst* respectively, for the anti-causative reading.

While these intensifiers manifest striking cross-linguistic similarities in the range of meanings they may express, they do vary. For example, for the *alone*-like uses,

Mandarin *ziji* can convey the anti-collective reading (as in (2)) or the anti-companion reading (as in (4)), but English *x-self* and Dutch *zelf* cannot have the latter use, illustrated in (5).

(4) A: What is Zhangsan doing?   anti-companion reading
   B: Zhangsan   **ziji** zai   da   dian-wan
      Zhangsan   ZIJI PROG   play   electronic-game
   'Zhangsan is playing video games alone.'

(5) #Jan speelt **zelf**.
   John plays self   (Tellings 2019: 185)

On the other hand, Mandarin *ziji* lacks the *only*-like reading and the superlative reading of Indonesia *sendiri* 'self', namely the two readings presented in (6) and (7) (Sipayung 2019: 4-5).

(6) **Sendiri** John memenangkan   loteri   *only*-like reading
   Sendiri John win   lottery
   'Only John won the lottery.'

(7) John bahagia **sendiri**   superlative reading
   John happy   sendiri
   'John is the happiest one.'

As argued in Liao (2018; 2021), the cross-linguistic similarities observed in the uses of intensifiers cannot be accidental. There must exist some mechanism working to derive the various surface meaning, while systematically allowing some variation among the intensifiers. The mechanism is unlikely to be the one suggested in Tellings (2019), which extends Moltmann's (2004) part-structure analysis of adverbial *alone* to exclusive intensifiers, and makes exclusive intensifiers take events with no subparts. Nevertheless, this minimal integrated whole analysis has no room for the non-delegation reading shown in (1), a meaning widely discussed for exclusive intensifiers (cf. Siemund (2000), among many others), let alone the other semantic functions observed above. Thus, to pursue a universal mechanism, the study will base its analysis on the simple semantic account in Liao (2018), where by variations in context and syntax, an alternatives-and-exhaustification mechanism works to derive the

various surface meanings from one single core meaning of adverbial intensifiers: the focused identify function (cf. Eckart (2001), Hole (2002; 2008), and Gast (2006) for such an approach for the semantics of intensifiers). But the study will revise Liao's analysis because of its big shortcoming. Liao's analysis empowers contexts to determine the reading of an intensifier, but it also stipulates that Mandarin *ziji* rejects the *only*-like reading. The shortcoming also emerges when one considers the syntax-semantics correlation of Indonesia *sendiri*, which conveys an *only*-like reading in the sentence-initial position, but an *alone*-like reading in the post-VP position, and an anti-causative reading in the postverbal position. Apparently, contexts play a role weaker than Liao (2018) has claimed. So, to better account for the cross-linguistic facts, the study will revise Liao's analysis by decreasing the role of contexts as follows.

Specifically, the study will argue that lexical properties of intensifiers determine what sorts of alternatives are activated, as illustrated in (8):

(8) Suppose that A is the prejacent, and B and C are contextually relevant individuals. The alternatives activated are:
    a. **Mandarin *ziji***: {A, B, C, A⊕B, B⊕C, A⊕C, A⊕B⊕C}
    b. **English *x-self*/Dutch *zelf***: {A, B, C, ↑(A⊕B), ↑(B⊕C), ↑(A⊕C), ↑(A⊕B⊕C)}
    c. **Indonesia *sendiri***: two possible sorts of activation {A, B, C} or {A, B, C, A⊕B, B⊕C, A⊕C, A⊕B⊕C}

Explication: Mandarin *ziji* activates relevant singular individuals and their pluralities as alternatives; English *x-self* and Dutch *zelf* activate relevant singular individuals and their groups (cf. Link 1983; 1984 for pluralities and groups); Indonesia *sendiri* activates relevant singular individuals with or without their pluralities, and it uses syntax to signal what sort of alternatives is activated.

Then by applying a covert *only*-like exhaustification operator (namely O) over alternatives (cf. Chierchia 2004), as in (9a), Mandarin *ziji* not only excludes someone else as the agent but also rules out any cumulative agent, exemplified in (9b):

(9) Assuming that the relevant domain contains Zhangan and Bill
    a. **O** ∃e[*do homework(e) ∧ ***Agent(e, Zhangsan)**]
    b. ∃e[*do homework(e) ∧ *Agent(e, Zhangsan)] ∧

$$\neg\exists e[*\text{do homework}(e) \wedge *\text{Agent}(e, \text{Bill})] \wedge$$
$$\neg\exists e[*\text{do homework}(e) \wedge *\text{Agent}(e, \text{Zhangsan}\oplus\text{Bill})]$$

Crucially, the exclusion of cumulative alternatives may derive the anti-collective meaning or the anti-companion reading, depending on what sorts of integrated wholes are perceived by the lexical properties of VPs (cf. Moltmann 2004 for integrated wholes), but the exclusion of group alternatives like $\uparrow(A\oplus B)$ or $\uparrow(B\oplus C)$ necessarily derive the anti-collective reading, which explains the lack of anti- companion reading for English *x-self* and Dutch *zelf*. Furthermore, since Indonesia *sendiri* may activate only singular alternatives, two important consequences emerge. First, it becomes possible for predicates of personal properties, like *be handsome*, to take Indonesia *sendiri* but not the other intensifiers as a modifier to express the *only*-like reading. Second, it is also possible for such an intensifier to evaluate alternatives in terms of degrees of personal properties. For example, for the proposition "John is tall", Indonesia *sendiri* may come in to express that there is a degree of height, d, higher than the contextual threshold, and John's degree in height is bigger than d, and no other people in the context have such a degree in height, as illustrated in (10) (cf. Kennedy and McNally (2005) for the contextual threshold degree for implicit comparatives). This is the superlative meaning that John is the tallest.

(10)
    a. **O** $\exists d[d > s_G \wedge \text{height}(\text{John}) \geq d]$
    b. $\exists d[d > s_G \wedge \text{height}(\text{John}) \geq d] \wedge$
          $\neg\exists d[d > s_G \wedge \text{height}(\text{Bill}) \geq d] \wedge$
          $\neg\exists d[d > s_G \wedge \text{height}(\text{Harry}) \geq d] \wedge$
          …….

The study will also argue that the above mechanism with global exhaustification derives the correct semantics for the anti-companion reading, and thus a mechanism with local exhaustification as claimed in Gast (2006) cannot hold (cf. Chierchia (2004; 2006) for the two modes of exhaustification).

To sum up, the study accounts for complicated cross-linguistic data of exclusive intensifiers in a simple mechanism. It shall bring to us a clearer picture of how a universal semantic mechanism operates for the semantics of intensifiers.

References:

Chierchia, Gennaro. 2004. Scalar implicatures, polarity phenomena, and the syntax/pragmatics interface. In Adriana Belletti (ed.), Structures and beyond. Oxford: Oxford University Press.

Chierchia, Gennaro. 2006. Implicatures of domain widening. Linguistic Inquiry 37(4). 535–590.

Eckardt, Robert. 2001. Reanalysing *selbst*. Natural Language Semantics 9(4). 371–412.

Gast, Volker. 2006. The grammar of identity. Intensifiers and reflexives in Germanic languages. New York: Routledge.

Hole, Daniel. 2002. Agentive *selbst* in German. In G. Katz, S. Reinhard & P. Reuter (eds.), Sinn und Bedeutung VI: Proceedings of the 6th Annual Meeting of the Gesellschaftfar Semantik, 133–150. Osnabriick: Institute of Cognitive Science.

Hole, Daniel. 2008. Focus on identity: The dark side of *ziji*. Linguistic Review 26. 267–295.

Kennedy, Christopher & Louise McNally. 2005. Scale structure, degree modification and the semantics of gradable predicates. *Language* 81(2). 345–381. http://dx.doi.org/10.1353/lan.2005.0071.

Liao, Hsiu-Chen Daphne. 2018. Domains and CauseP in a unified semantics of Chinese adverb *ziji* 'self'. Acta Linguistica Academica 65(4). 1-54.

Liao, Hsiu-Chen Daphne. 2021. A unified semantic analysis of Chinese adverbial *ziji*. Language and Linguistics. *Language and Linguistics* 22.4: 513-557

Link, G. 1983. The logical analysis of plurals and mass terms: A lattice- theoretical approach. In R. Bau erle, C. Schwarze, and A. von Stechow (eds.), *Meaning, Use and Interpretation*, 303–323. Berlin, New York: de Gruyter.

Link. G. 1984. Hydras: on the logical of relative clause constructions with multiple heads. In F.

Landman and f. Veltman (eds.), *Varietives of Formal Semantics*, Vol 3, 245-257. Dordrrecht, Netherlands: Foris.

Moltmann, Friederike. 2004. The semantics of together. Natural Language Semantics 12. 289–318. Siemund, Peter. 2000. Intensifiers in English and German: A comparison. New York & London: Routledge.

Sipayung, Elisabet. 2019. The semantics of *sendiri* in Standard Indonesian in its adverbial uses. Master thesis, National Chiao Tung University.

Tellings, Jos. 2019. Emphatic reflexives as part-structure modifiers. Linguistics in the Netherlands 36. 176–191.