



valid through 03/2025

Degree Reduplication in Mandarin

Florence Zhang-Yukun¹ Dingfan Lin²

Yale University¹ University of Macau²

Yale
um 澳大

Overview

Contrast between mono-/di-syllabic degree words.^a

- empirically observed (ZHAO 2008) but left unexplained.

- (1) John {fēicháng fēicháng / *hěn hěn} xǐhuān tā. Mandarin
very very very very like it
'John likes it very very much.'
- (2) a. ✓ **Doubling**: fēicháng, tèbié, chāojí, jíqí, ...
b. ✗ **Doubling**: hěn, tè, chāo, jí, tài, ...

More Data

More empirical data. The reduplicant:

- has a minimal length requirement (3-4);
- need not correspond to a syntactic constituent (3);
- excludes elements external to the degree construction (5).^b

- (3) John [hěn *(xǐhuān (tā))] _ℝ [hěn xǐhuān tā] _ℬ.
very like it very like it
i.e. ✗ [hěn] _ℝ but ✓ [hěn xǐhuān] _ℝ or ✓ [hěn xǐhuān tā] _ℝ
- (4) some other ways to realise the reduplicant
John [{hěn hěn (hěn × *n*) / ?hěn ya}] _ℝ [hěn xǐhuān tā] _ℬ.
very very very very PRT very like it
- (5) Certain degree words co-occur with particular sentence final particles (see SOH 2009, XIONG & HSIEH 2021).
These SFP's cliticise into the base, but never into the reduplicant.
a Zhè dào wèntí [tài nán -le] _ω!
this CLF problem too difficult -PFV
'This problem is too difficult.'
b Zhè dào wèntí [tài nán (*-le)] _ω [tài nán -le] _ω!
this CLF problem too difficult -PFV too difficult -PFV
'The problem is too too difficult!'

- so long as the requirements above are met, the asymmetry between monosyllabic and disyllabic degree words disappears (6).

- (6) John [fēicháng (xǐhuān (tā))] _ℝ [fēicháng xǐhuān tā] _ℬ.
John [hěn *(xǐhuān (tā))] _ℝ [hěn xǐhuān tā] _ℬ.
very like it very like it

Other (minor) points:

- whether the gradable predicate is AP or *v*P is irrelevant;
- no categorical limit on the reduplicant's length, though total reduplication gets deviant as the base becomes longer (7);
- semantically, degree reduplication yields a truth conditional difference.

- (7)[?] John [hěn xǐhuān hē hēi kāfēi] _ℝ [hěn xǐhuān hē hēi kāfēi] _ℬ.
very like drink black coffee very like drink black coffee
'John likes drinking black coffee very very much.'

Abbreviations: CLF = classifier, PFV = perfective, PRT = particle. Notations: ℬ = base, ℝ = reduplicant.

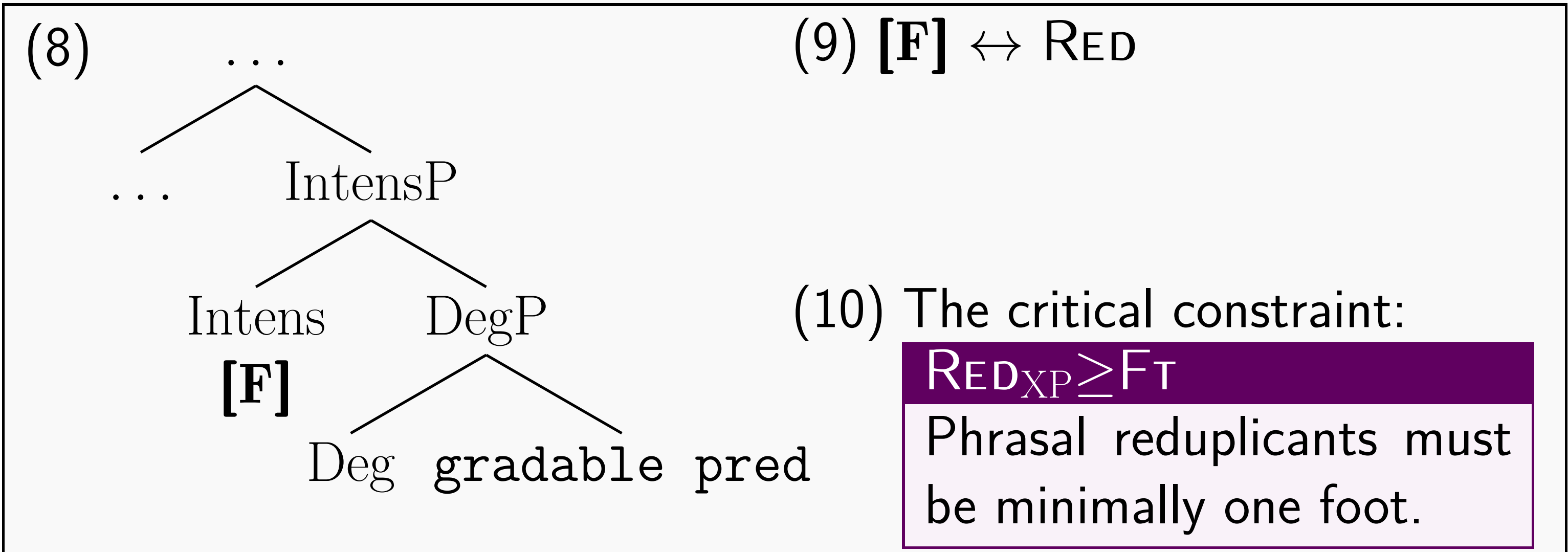
^aDegree words refer to elements that fulfil the degree-argument of gradable predicates (KENNEDY 1999), but excluding superlatives and composite expressions like 'a bit'.

^bThe form (5b) may be a felicitous instance of repetition *i.e.* 'too difficult! too difficult!', which is NOT degree reduplication of interest.

Analysis

We adopt the syntactic structure in (8).

- the gradable predicate (AP or *v*P) is headed by Deg^o (see ABNEY 1987, KENNEDY 1999);
- Intens^o (same as F_{RE}^o in WANG 2023) merges with DegP;
- Intens^o carries a feature [F] phonologically interpreted RED (9).



The degree reduplicant must meet a syntax-phonology interface condition.

- [F] ↔ RED is subject to a minimality constraint (10);
- the constraint is not morpheme-specific: no phrasal reduplicants can underlength a foot (11);
- notice that the phrasal base in (12) is itself monosyllabic.
- morpheme- (or word-) level reduplicants (see LEE-KIM 2016 for examples) are exempt from this constraint.

- (11) reduplication of *v*P ⇝ iterative reading
Zhěngtiān dòu zài {dǎyóuxì dǎyóuxì / xīxì xīxì / *wán wán}.
day.long all PROG play.game play.game play play play play
'He is {playing video games/ playing/ playing} all day long.'
- (12) Zhěngtiān dòu zài [{wán wán / wán ya}] _ℝ [_vwán] _ℬ.
day.long all PROG play play play PRT play
- (13) **RED_{XP} ≥ FT** >> {**DEP(B-R)**, *σ}

Implications

Several implications *beyond* degree reduplication:

- Mandarin-internally, phrasal reduplicants behave similarly under the same minimality requirement, no matter whether it is a DegP;
- in reduplication, phonology must be sensitive to the syntactic status (*i.e.* whether it is an XP) of the base;
- calling for further crosslinguistic observations.

Conclusion

We provide a syntax-phonology interface analysis to account for the asymmetry between monosyllabic and disyllabic degree words. Phrasal reduplicants are minimally a foot.

References

- ABNEY Steven P. 1987. *The english noun phrase in its sentential aspect*. cambridge: Massachusetts Institute of Technology dissertation.
- KENNEDY Christopher. 1999. *Projecting the adjective: The syntax and semantics of gradability and comparison*. New York: Routledge.
- LEE-KIM Sang-lm. 2016. Syntax-based phonological asymmetries: the case of adjective reduplication in Mandarin Chinese. *Lingua* 179, 1–23.
- SOH Hooi Ling. 2009. Speaker presupposition and Mandarin Chinese sentence-final -le: a unified analysis of the “change of state” and the “contrary to expectation” reading. *Natural Language & Linguistic Theory* 27(3), 623–657.
- WANG Chen. 2023. A syntactic derivation of the reduplication patterns and their interpretation in Mandarin. *Natural Language & Linguistic Theory* 41(2), 847–877.
- XIONG Jiajuan, HSIEH Feng-fan. 2021. Degree Intensification and Sentential Functions in Chengdu Chinese. In Meichun Liu, Chunyu Kit, Qi Su (eds.), *Chinese Lexical Semantics* (Lecture Notes in Computer Science 12278), 74–86. Cham: Springer.
- ZHAO Fang. 2008. *A study of Modern Chinese adverb reduplication*. Shanghai Normal University MA thesis.

We thank profusely Natalie Weber & Jim Wood for their advice, and Olabode Adedeji, Manasvi Chaturvedi, Yuyang Liu, Richard Luo, Yitong Luo, Minghui Qiu, Jason Shaw, Squid Tamar-Mattis, Ka-Fai Yip and Linmin Zhang for their feedback.