

A method for detecting superlative interpretations of positive adjectives

Pamela Sugrue and Elizabeth Coppock

Initial Data

Storyboard for eliciting superlatives



Joseph proposes to have a contest and see who can climb **the tallest** cacao tree.

Storyboard for eliciting superlatives



Among the three children, Joseph was the one who climbed **the tallest** tree.

Superlative → Positive + ALL

En: Among the three children, Joseph was the one who climbed **the tallest tree**.

Sw: Kati ya watoto, hawa watatu Joseph ndiye aliyepanda **m-ti m-refu kuliko y-ote**.

tree agr-tall above agr-all

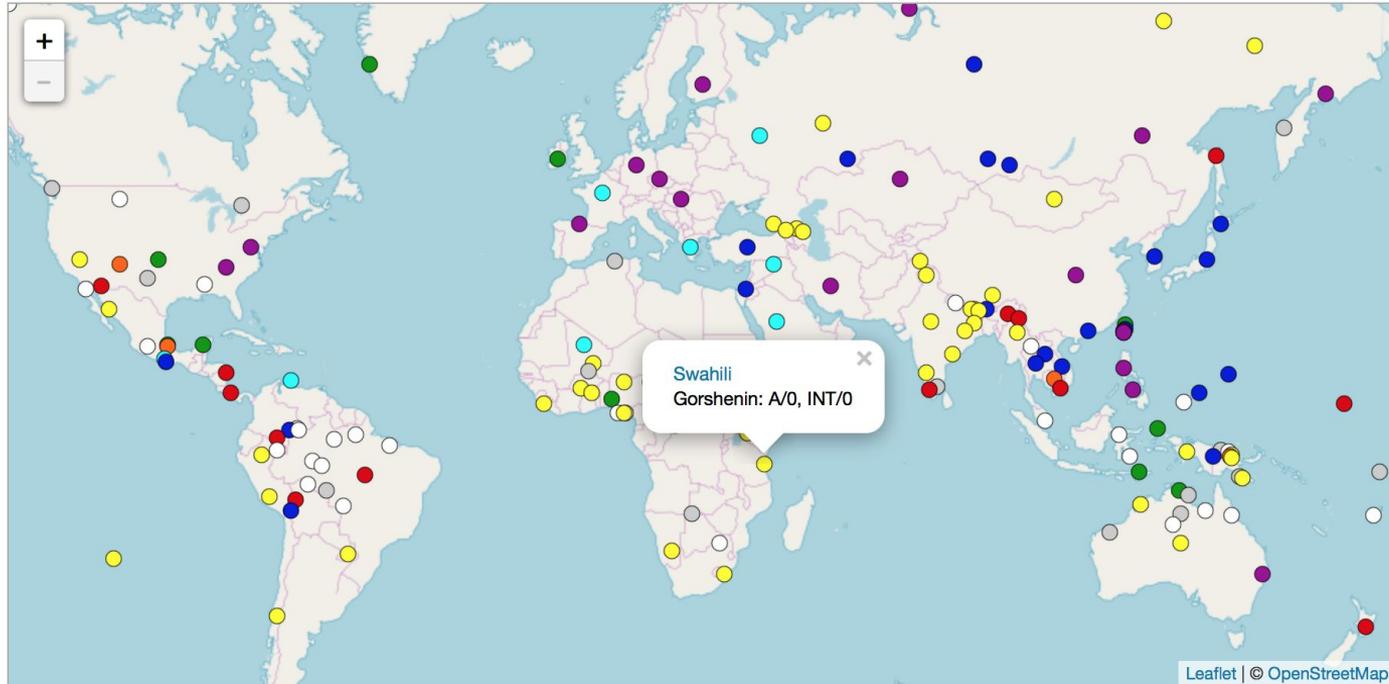
Typology of superlative constructions

- M: morphological superlative marker
(e.g. *tall-est*)
- PERIPH: periphrastic superlative marker, in some cases optional
(e.g. Turkish *en leziz* `most delicious')
- DEF: superlative indicated via definiteness alone
(e.g. French *la plus belle* `the more beautiful')
- CMPR: no formal distinction between comparative and superlative
(e.g. as in Irish)
- ALL: superlative indicated with "of/than all"
(e.g. Russian *vyš-e vse-x* `tall-er all-of')
- ANY: superlative indicated with "of/than some/any"
(e.g. Khmer *klang ciang kee*: `strong exceed someone')
- VERY or ABS: intensifiers are used, or there is only an 'absolute' (i.e. 'relative') superlative
(e.g. Maori *teitei rawa atu* `tall indeed away')

Swahili is classified as an ALL language

Typological database of superlative constructions

Elizabeth Coppock · October 2016



Superlative → Positive

En: Joseph proposes to have a contest and see who can climb **the tallest cacao tree**.

Sw: Joseph akapendekeza kua na mashindano kuona nani anaweza kupanda **mti m-refu wa kokoa**.
agr-tall

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agr-tall

Consultant: “m-refu can mean *tallest* in Swahili.”

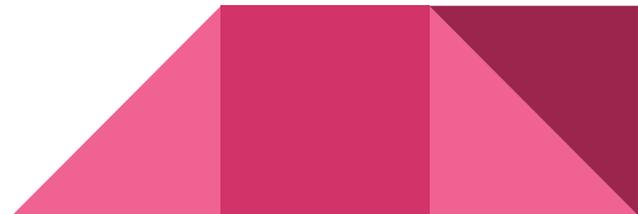
Observation

English superlatives can be translated to Swahili as positive-form adjectives.



Research Question

What kind(s) of meanings do unmarked forms of Swahili adjectives have?



Hypotheses

Hypotheses

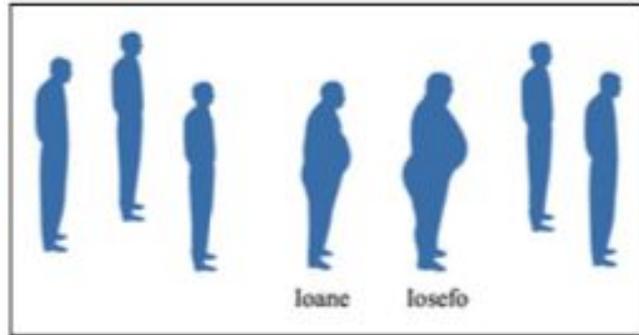
1. The bare form adjective only has a superlative interpretation.
2. The bare form adjective is ambiguous between a superlative meaning and a positive meaning.
3. The bare form adjective only has a positive meaning.

Bare forms as superlatives: Samoan

Hohaus (2015) demonstrates that bare forms mean only *superlative* in Samoan.

losefo is fat.

#loane is fat.



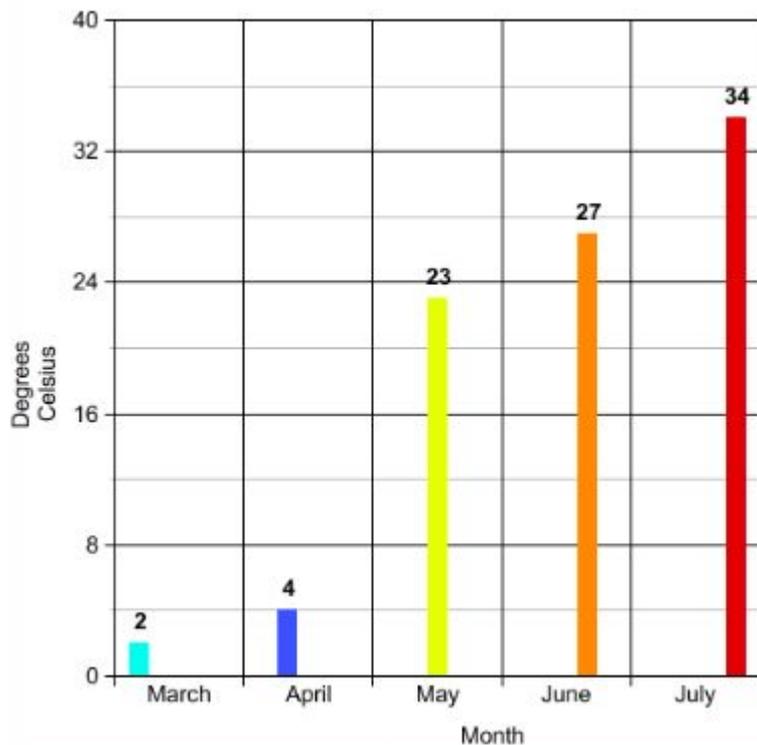
Bare forms as superlatives: Samoan

In a context where Mary is 190 cm tall and Temukisa is 185 cm tall:

#Mary is taller than Temukisa, but Temukisa is also tall.



Bare forms as superlatives: Samoan



#June is hot.

Prediction

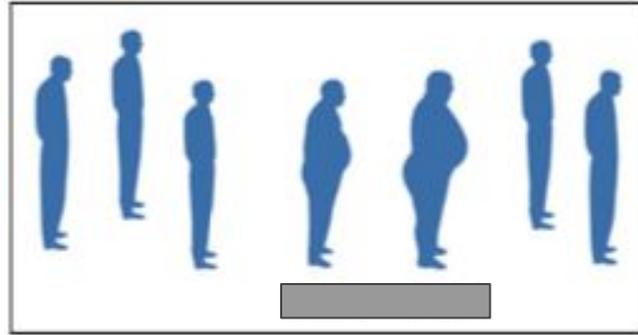
If Swahili adjectives are unambiguously superlative as in Samoan, speakers should reject application of a gradable predicate to a non-maximal entity.



Displays



Height



Weight

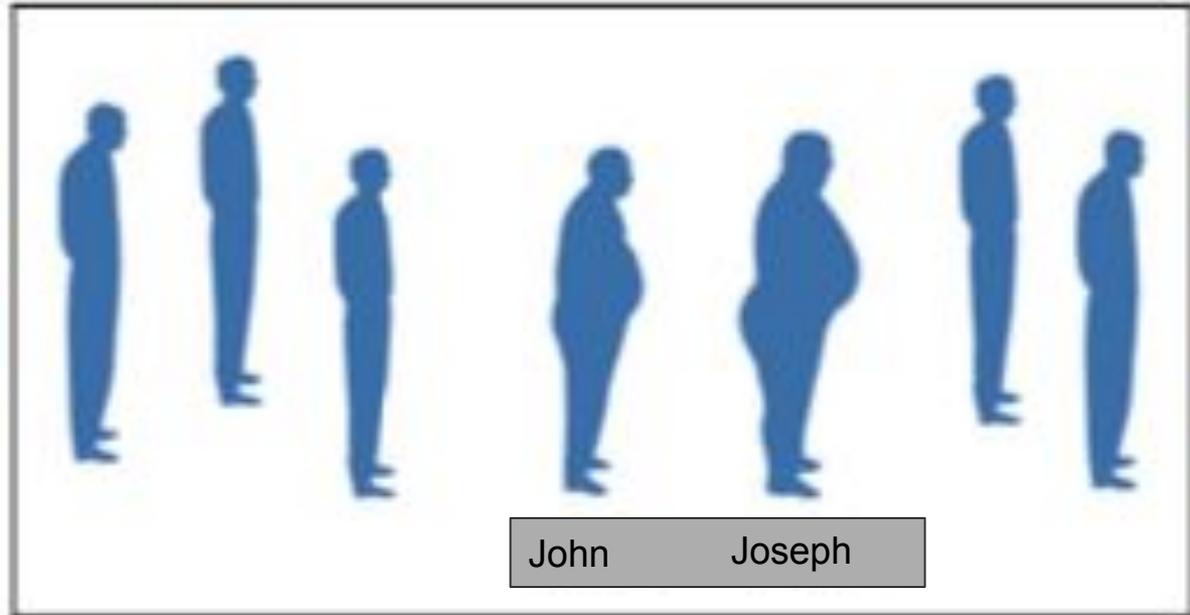
Dar es Salaam	4,364,000
Mwanza	2,773,000
Dodoma	2,084,000
Mafinga	34,958

Population

Results

John ni **mnene**.
'John is **fat**.'

Accepted

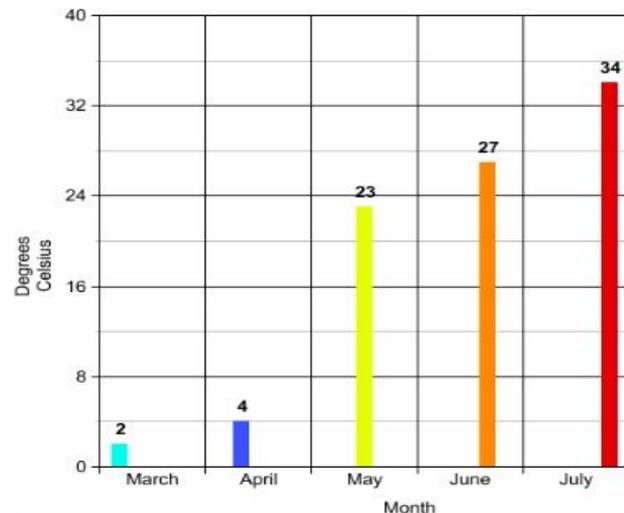


Results

Mwezi wa saba ni **joto** kuliko mwezi wa sita lakini mwezi wa sita pia ni **joto**.

‘July is hotter than June, but June is also **hot**.’

Accepted



Results

Sio **watu** wengi wanaishi Dodoma.
'Not **a lot** of people live in Dodoma.'

Rejected

Dar es Salaam	4,364,000
Mwanza	2,773,000
Dodoma	2,084,000
Mafinga	34,958

Hypotheses

- ~~1. The bare form adjective only has a superlative interpretation.~~
2. The bare form adjective is ambiguous between a superlative meaning and a positive meaning.
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Creating a field test for ambiguity

Under what circumstances would a superlative adjective be true/felicitous and positive form false/infelicitous?



Creating a field test for ambiguity

Under what circumstances would a superlative adjective be true/felicitous and positive form false/infelicitous?

Maximum-standard adjectives!



Types of adjectives

Relative: *tall, fat, hot....*

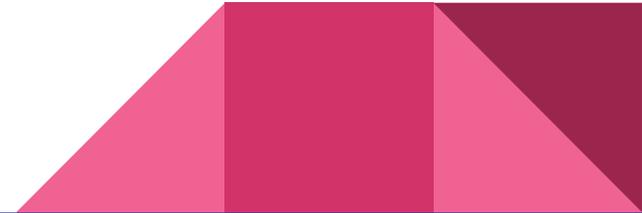
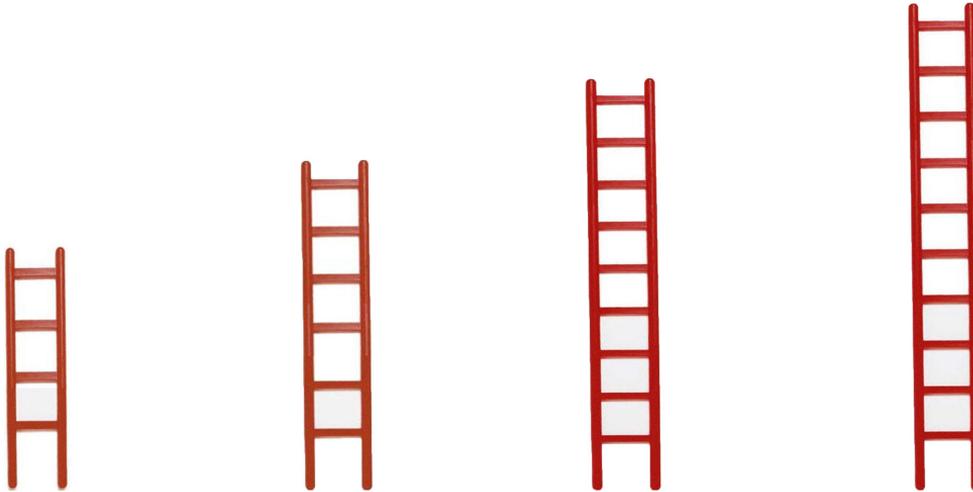
Absolute maximum-standard: *full, empty*

Absolute minimum-standard: *open, wet*



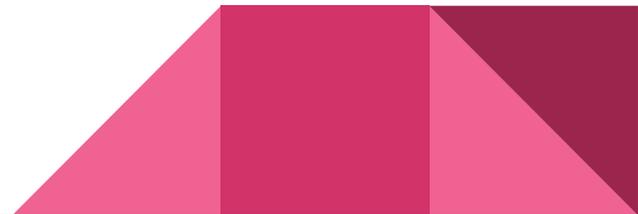
Relative adjectives: Contextual standard

What counts as a tall ladder?



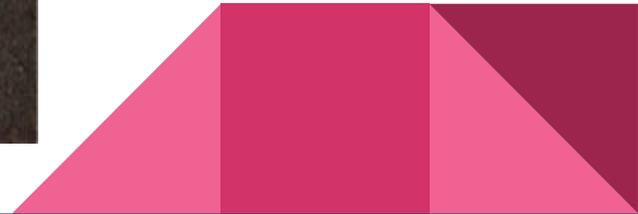
Relative adjectives: Contextual standard

What counts as a tall ladder?



Absolute adjectives: Maximum standard

What counts as an empty box?



Absolute adjectives: Maximum standard

What counts as an empty box?



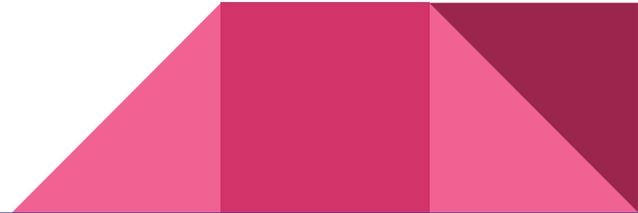
Absolute adjectives: Maximum standard

What counts as a full jar?



Absolute adjectives: Maximum standard

What counts as a full jar?



Absolute adjectives: Maximum standard

What counts as a full jar?

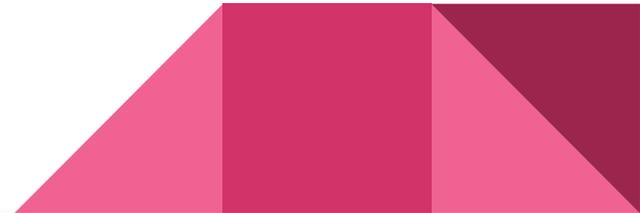


Fullest, but not full!

I.e. superlative but not positive.

Prediction

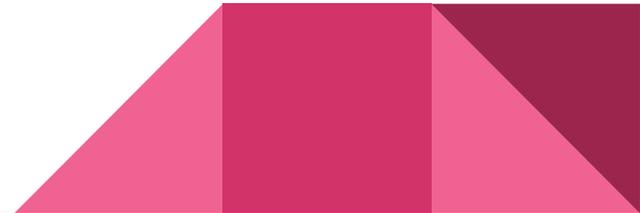
If bare form adjectives in Swahili have a superlative interpretation, then speakers should **accept** the application of a maximum standard adjective to non-maximal entities.



Caveat

There is vagueness about what counts as full enough to be 'full'.

Fact: Exposure to precise standards encourages precision.



Syrett et al. (2009): Presupposition Assessment Task

Point to the full jar. (**Infelicitous request**)



Rejection:
“Neither ONE is full!”

Syrett et al. (2009): Presupposition Assessment Task

Point to the full jar. (**Infelicitous request**)



Rejected by adults 88% of the time.
Rejected by kids 30-40% of the time.

Syrett et al. (2009): Presupposition Assessment Task

Point to the full jar. (**Felicitous request**)



Always accepted



Syrett et al. (2009): Effect of order



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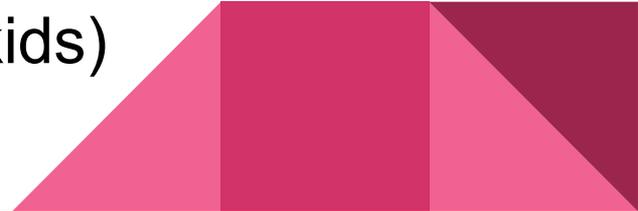
High rejection rate
(100% for adults,
67% kids)



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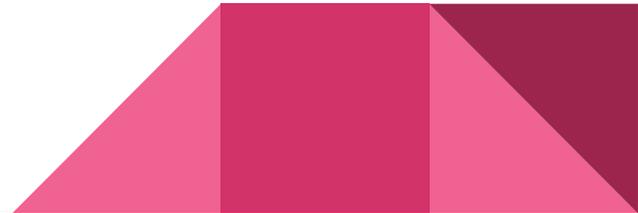


Lower rejection rate
(70-75% for adults,
0-18% kids)



Lesson

Prior exposure to precise maximal exemplars increases rejection rate for maximum standard adjectives applied to non-maximal entities.

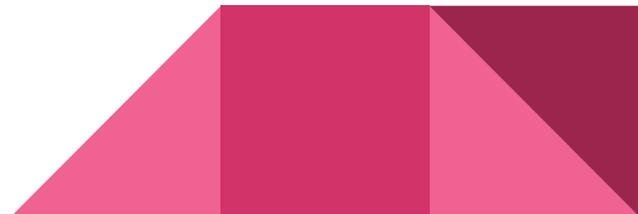


Survey procedure

Participants are asked to judge display-sentence pairs as true or false (*kweli* or *si kweli* in Swahili).

Phase I: Precise maximal settings

Phase II: Non-maximal settings



Example: acclamation

Boksi la upande wa kushoto ni tupu.

‘The box on the left is empty.’

Kweli/ si kweli?



More acclamation items



‘Closed’

Mfuko wa upande wa kulia umefungwa.



‘Transparent’

Dirisha la upande wa katikati ni angavu.

More acclamation items



‘Full’

Gudulia la upande wa kushoto limejaa.

‘Whole’

Duara la upande wa kushoto lipo kamili.



Example: Non-maximal context

Boksi la upande wa katikati ni tupu.

‘The box in the middle is empty.’

Kweli/si kweli?

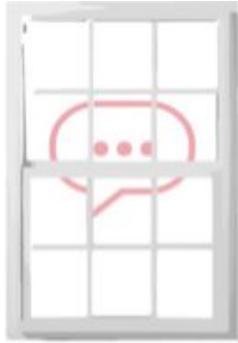


Elicitation materials

We apply this test with predicates including *empty, full, closed, whole, and clean*.

Because some English adjectives are translated as verbs in Swahili, we tested both verbal (e.g. *closed*) and adjectival (e.g. *empty*) maximum-standard predicates.

Stimuli



‘Clean’

Dirisha la upande wa kulia ni safi.



‘Closed’

Mfuko wa upande wa kulia umefungwa.

Stimuli, cont'd



'Full'

Chombo cha upande
wa kushoto kimejaa.

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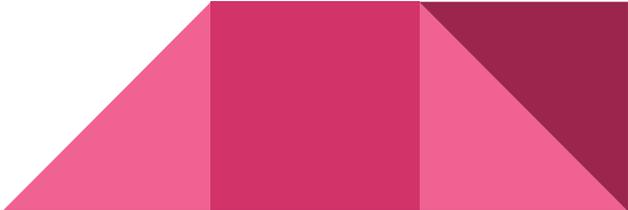


'Whole'

*Duara la upande wa
kushoto lipo kamili.*

Prediction (again)

If Swahili bare forms have a superlative meaning, a positive-form maximum standard adjective can be used to describe, for example, the most full box in a context where no boxes are full.



Prediction (again)

If Swahili bare forms only have a positive meaning, maximum-standard adjectives should be judged not to apply to objects that do not instantiate the maximum possible degree of a property.



Participants

- 1 native Swahili speaker in person in Boston
- 1 fluent Swahili speaker over email
- 2 native Swahili speakers over Prolific.ac



Results

Data

Mfuko wa upande wa kulia umefungwa.
'The bag on the right is closed.'



Rejected across the board

Conclusions

- ~~1. The bare form adjective only has a superlative interpretation.~~
- ~~2. The bare form adjective is ambiguous between a superlative meaning and a positive meaning.~~
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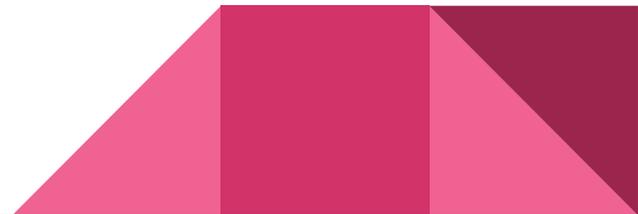
Further applications

A non-exhaustive list of languages to which our method could be applied:

Altaic	Azari
Dravidian	Kannada
	Malayalam
	Tamil
	Telugu
Eastern Sudanic	Kenuzi-Dongola
Gunwinyguan	Kunbarlang
Indo-European	Hindi
	Urdu
Kartvelian	Georgian
Khoe-Kwadi	Nama (Namibia)
Mande	Vai
Nakh-Daghestanian	Lezgian
Niger-Congo	Ga
	Kagulu
	Swahili
Oto-Manguean	Chinanteco (San Antonio Analco)
	Mixtec
Quechuan	Quechua (Cochabamba)
Sino-Tibetan	Dhimal
	Newar

Extensions?

What other tools for semantic fieldwork can we gain from the experimental literature?



References

Bobaljik, Jonathan. 2012. *Universals in Comparative Morphology*. Cambridge, MA: MIT Press.

Coppock, Elizabeth. 2016, Typological database of superlative constructions, doi:10.7910/DVN/71WHWY, Harvard Dataverse, V3.

Gorshenin, Maksym. 2012. The crosslinguistics of the superlative. In Cornelia Stroh (ed.), *Neues aus der Bremer Linguistikwerkstatt -- Aktuelle Themen und Projekte*, 55--159. Bremen: Brockmeyer.

Hohaus, Vera. 2015. Context and composition: How presuppositions restrict the interpretation of free variables: Tübingen dissertation.

Kennedy, Christopher and Louise McNally. 2005. Scale structure, degree modification, and the semantics of gradable predicates. *Language* 81(2): 345-381.

Kim, Christina, Andrea Beltrama, Kristen Syrett, Ming Xiang and Chris Kennedy. 2013. Sensitivity to local v. global discourse context in gradable adjectives. CUNY poster.

Syrett, Kristen and Christopher Kennedy and Jeffrey Lidz. 2009. Meaning and context in children's understanding of gradable adjectives. *Journal of Semantics* 7(1): 1--35.

Matters of perspective: bugs



Which window is the **cleanest**?

Can't a circle be **whole** without a filled-in center?

