

# Semantic patterns underlying syntactic alternations cross- linguistically

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# Possibilities for investigation: cluster phenomenon A by phenomenon B

	Languages	Verbal concepts	Coding frames	Micro-roles	Alternations
Languages	X				
Verbal concepts		X			
Coding frames			X		
Micro-roles				X	
Alternations					X

# Possibilities for investigation: cluster phenomenon A by phenomenon B

	Languages	Verbal concepts	Coding frames	Micro-roles	Alternations
Languages	X				
Verbal concepts		X			✓
Coding frames			X		
Micro-roles				X	
Alternations		✓			X

# No meaningful results for classifying alternations through the verbal concepts that they apply to

	Languages	Verbal concepts	Coding frames	Micro-roles	Alternations
Languages	X				
Verbal concepts		X			(✓)
Coding frames			X		
Micro-roles				X	
Alternations		✓			X

# Meaningful results for classifying verbal concepts according to alternations that they occur in

	Languages	Verbal concepts	Coding frames	Micro-roles	Alternations
Languages	X				
Verbal concepts		X			(✓)
Coding frames			X		
Micro-roles				X	
Alternations		✓			X

# Data

## SUFFICIENT ATTESTATIONS:

- 87 verbal concepts
- 143 alternations
- 12 languages: Ainu, Arabic, Bezhta, Bora, Chintang, Hocank, Icelandic, Italian, Jakarta Indonesian, Mandinka, N|u, Zenzontepec Chatino

## Distance-based clustering

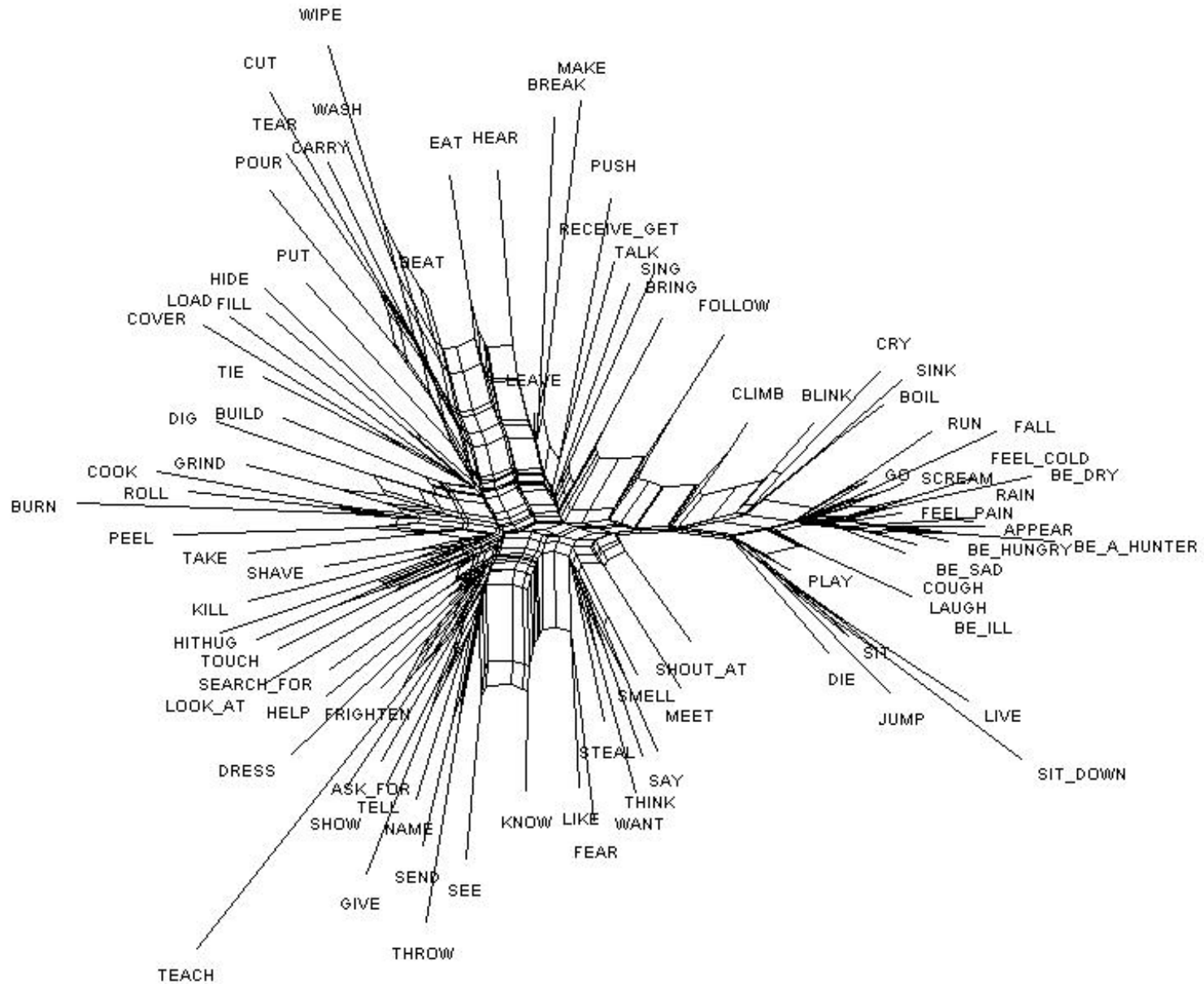
	be ill	break	eat
Ainu Subject-Oriented Reciprocal	1	1	3
Chintang Benefactive	1	3	3
Italian Reciprocal Reflexive	1	3	1

## Distance-based clustering

DISTANCES	be ill	break	eat
be ill			
break	66%		
eat	66%	66%	

# NeighborNet of concepts by alternations

0.01









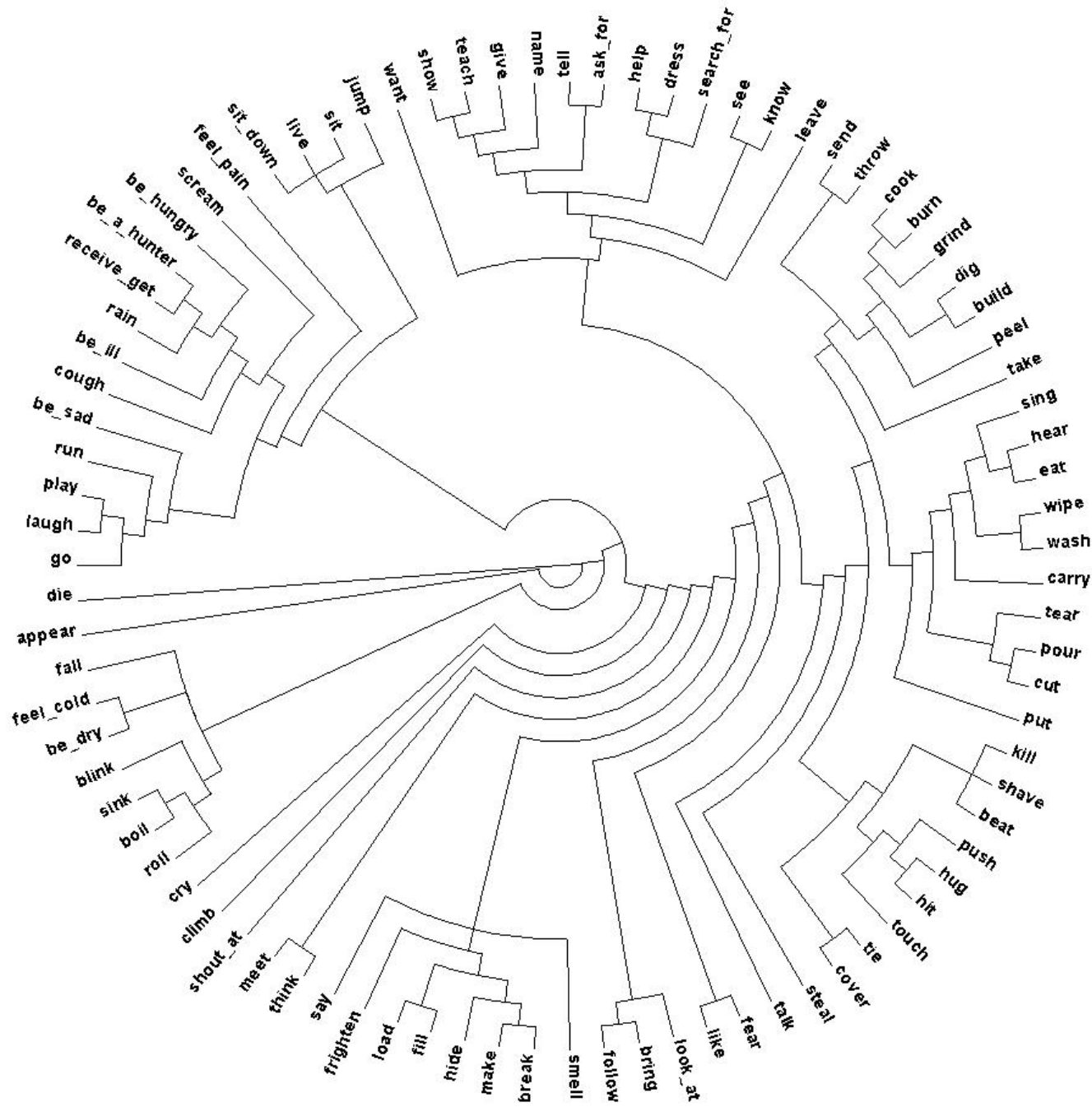
## A character-based method seems preferable

	be ill	break	eat
Ainu Subject-Oriented Reciprocal	1	1	3
Chintang Benefactive	1	3	3
Italian Reciprocal Reflexive	1	3	1

# ,Wagner parsimony‘

- Treats characters (here verbal concepts) as if they evolve within a phylogeny
- Reconstructs the tree (or several trees) that most parsimoniously account for the changes observed

# Results for Wagner parsimony



# The way forward

- Classify concepts by the constructions they occur in cross-linguistically
- Identify clusters
- List semantic parameters that are responsible for clusters
- Replicate the main features of the classification

# Examples of possible semantic features

- (potentially) uncontrolled movement
- temperature involved
- (potentially) controlled movement whole
- internally induced emotion
- sufferance
- controlled non-movement
- animate R
- mildly impacted animate P/R, no contact
- apprehension
- cause inanimate to move
- cause inanimate to change state
- involves sound
- surface-manipulation
- manipulation by instrument
- highly impacted animate undergoer
- physical contact with animate undergoer
- act of constraint
- externally induced emotion
- animate undergoer no physical contact
- two inanimate undergoers
- .....

appear	00100000..
ask_for	00000011..
beat	00000000..
be_a_hunter	00000000..
be_dry	01001000..
be_hungry	00001000..
be_ill	00001000..
be_sad	00011000..
blink	10000000..
....	.....

Columns:

1. (potentially) uncontrolled movement
2. temperature involved
3. (potentially) controlled movement whole
4. internally induced emotion
5. sufferance
6. controlled non-movement
7. animate R
8. mildly impacted animate P/R, no contact
- ....

# Now replicate the main features of the observed classification

- The claim can then be made that the semantic features identified have some cross-linguistic validity and that such features underlie syntactic alternations cross-linguistically

# Conclusions

- No meaningful patterns are observed when alternations are classified according to the types of verbs that apply to them
- Meaningful semantic patterns are observed in the opposite situation, where verb types (concepts) are classified according to the alternations (constructions) that they appear in
- The semantic patterns are most clearly discerned through a character-based than a distance-based method
- The procedure confirms Levin's assumption that verbal semantic classes underlie syntactic alternations
- But note that Levin's verb classes don't follow in a systematic way from the alternations that she studied (they form two unconnected chapters in her book)
- Making a claim that highly specific semantic classes underlie alternation types probably only possible using cross-linguistic data
- Hope that we can discern some maximally salient semantic features