

# The impact of aspectual categories on the construal of motion events: The case of Tunisian Arabic and Modern Standard Arabic

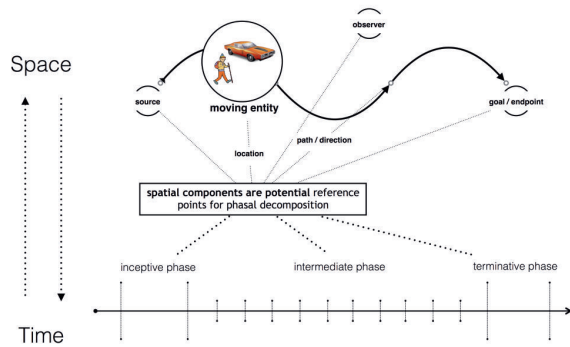
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## Background

A motion event can be described by specifying the place at which the figure in motion starts to move (source), the place it is heading for (goal), and the path traced. In the original typology developed by Talmy, two types were distinguished: satellite / verb framed. Given the empirical diversity this basic categorisation has been repeatedly revised (c.f., Slobin 2004, Beavers et al. 2010).

- since motion events are fundamentally anchored in the temporal domain, we assume an interaction between grammaticalized temporal categories (aspect, tense, Aktionsart) and spatial categories in the expression of motion events (c.f. v. Stutterheim et al. 2012, in press)
- conceptual categories encoded in the grammar of a language play an active role as a cognitive filter set up in processes of attention allocation and information selection when talking about motion events (v. Stutterheim et al. 2012)



## Modern Standard Arabic (MSA) and Tunisian Arabic (TA)

	Time - aspectual categories				Space - motion verbs		
TA	imperfective	periphrastic form	participle active	perfective	path verbs but no V for directed motion!	neutral verb	manner verbs
MSA	imperfective			perfective	path verbs	neutral verb	manner verbs

## The present study

### Design

- unscripted event description task: "Describe the video by answering, 'what happened?', start as soon as you can."

### Materials and participants

- 20 video clips showing a moving entity underway to a potential endpoint, 40 filler items (video clips showing states, causative events)
- 18 speakers of TA, 18 speakers of MSA (Tunisia, Syria, Egypt, Saudi-Arabia); recorded in Heidelberg and Göttingen (Germany)

### Analyses

- **Linguistic data:** (1) aspect marking, (2) verb type used, (3) adjunct type
- **Eye tracking data:** attention allocation on moving entity and endpoint region, time-locked to stimulus onset

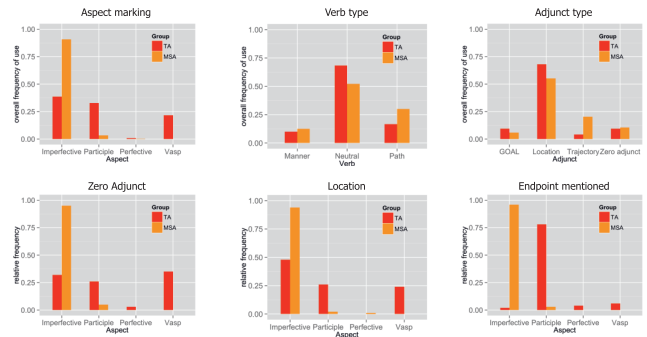
### Hypotheses

1. Motion events are expressed differently in TA and MSA, given the typological differences in the spatial and temporal domain.
2. Attention allocation mirrors information extraction necessary for verb choice (lexical content and morphological marking).

## References

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- v. Stutterheim et al. (2012). How grammaticalized concepts shape event conceptualization in language production: Insights from linguistic analysis, eye tracking data, and memory performance. *Linguistics*, 50, 833-867.
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## Results



- **Verb type:** in MSA, a variety of PATH verbs is used: dahaba '(to go away)', ittağaha '(to direct yourself)', ibta'ada '(to depart)', abara '(to cross)', inṭalaqa '(to leave)', iqtaraba '(to approach)'; in TA, only one path verb is used: the undirected verb t'adda '(to pass)'

## Visual attention on endpoints



- in TA, visual attention patterns correlate with the selection of aspect: if imperfective aspect or the periphrastic form is used, attention on endpoints drops after a peak is reached, indicating that reference to endpoints is grammatically excluded by the aspectual forms selected
- in MSA, the attention patterns reflect that there is no endpoint constraint

## Discussion

- In TA, locomotion is expressed via assigning a succession of states to a moving entity on the way moving towards some goal or away from some source place (phasal decomposition). Translational motion is expressed at the lexical AND grammatical level
- In MSA, temporal information does not contribute to profiling locomotion. It is the verb and the adjuncts which provide spatial information about the route, the orientation and the direction of the moving entity
- ET data raise the question as to the temporal sequence of processing semantic content and temporal perspective-taking during conceptualization

## Conclusion

- The absence of path verbs for expressing directed motion is 'compensated' for by the temporal aspect of progression -> TIME structures SPACE
- Visual attention indicates that verb choice and aspect marking depends on the extraction of information about a potential endpoint -> seeing for speaking