Introduction

In order to process language in real time, it has been proposed that the language processing mechanism
• strives to maintain the arguments of the verb distinct [1], and
• uses several cues with language-specific weightings [2].

Mechanisms to distinguish the arguments, such as case-marking, may indicate several roles for the argument depending upon the verb. For instance, a Tamil dative noun can signify, among others:
• an indirect object : John gave a book to Mary
• a subject : John likes Mary
• a destination or goal : John is going to a shop

Tamil verbs that require a dative subject:
• are statives, expressing states of affairs rather than active events
• do not agree with the subject, i.e., default agreement (3-sg-Neut)
• have a non-stative literal meaning (nom. subj. with agreement)

We investigated the processing of Tamil dative-stative verbs and default-agreement in an auditory ERP study.

Methods

Participants:
• 24 (6 female) right-handed Indian native speakers of Tamil
• Mean age: 25.47 years; Age-range: 21 – 35 years

EEG Data:
• Recorded using Easy Cap fixed at the scalp; 25 AgAgCl electrodes
• Ground: AFZ; Reference: Left-mastoid
• Re-referenced to linked mastoids; Offline filter: 0.3 – 20 Hz bandpass

Procedure:
• Auditory presentation of context question + stimulus pair
• Task 1: Context + stimulus combination like-dislike judgement task
• Task 2: Comprehension task

Materials:
• Two sentence-types: Dative-stative & Ditransitive clause-final verbs
• Two word-orders: Dative NP1 – Accusative NP2 and view-versa
• Four preceding context questions, to prime the structure of stimuli

Results

ERPs at the position of the clause-final verb

Dative Stative

<table>
<thead>
<tr>
<th>Difference: CQ-NQ</th>
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<tr>
<td>500 – 700 ms</td>
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<tr>
<td>N = 34</td>
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Ditransitive

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Effects common to both sentence-types: E1
• Early positivity for the Correct context
• Late positivity for the Verb-class and Wrong-verb contexts

Effects specific to DS sentences in the Correct context: E2
• A negativity and a late positivity

Discussion

The effects in E1 could be plausibly interpreted as reflecting stimulus categorisation: early & late peaks correspond to matching & violating expectations respectively[3,4]. We argue that the effects in E2 could be an initial indication of how default-agreement is processed.

• A bottom-up agreement mechanism strives to identify an agreeing (nominative) argument, which is not found.

• This leads to abandoning the literal meaning of the verb and deriving the stative meaning via an enrichment process [5,6].