3) Results & discussion

**GENERAL ASPECTS**

**CNV preceding fluent words:**

<table>
<thead>
<tr>
<th>Correlation with stuttering measures</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>% SS reading</td>
<td>0,58</td>
<td>0,001</td>
</tr>
<tr>
<td>% SS conversation</td>
<td>0,59</td>
<td>0,001</td>
</tr>
<tr>
<td>overall severity</td>
<td>0,58</td>
<td>0,001</td>
</tr>
</tbody>
</table>

The more a person stutters:
- The higher the CNV slope
- The higher the activation in the BGTC loop

~ confirmation of previous research

Increased BGTC activation **despite** fluent word production

Fluent word production **because of** increased BGTC activation

**CNV preceding stuttered words:**

CNV fluent words > CNV stutters
- Fluent word production because of increased BGTC activity
- Increase in motor preparation activity is (part of) successful compensation

**LEFT vs RIGHT HEMISPHERE**

**CNV preceding fluent words:**

Increase in AWS is more pronounced over the **right** hemisphere

**Successful compensation** depends on motor preparatory activity in **right** BGTC loop

No significant difference despite clear decrease in AWS, especially over **left** hemisphere

~ Suggestive for large variation

**CNV preceding stuttered words:**

The more a person stutters:
- The lower the **left** CNV slope
- The lower the activation in the **left** BGTC loop

~ suggestive for a link with stuttering pathology

<table>
<thead>
<tr>
<th>Correlation <strong>left</strong> CNV and stuttering measures</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>% SS reading</td>
<td>-0,96</td>
<td>0,001</td>
</tr>
<tr>
<td>% SS conversation</td>
<td>-0,72</td>
<td>0,034</td>
</tr>
<tr>
<td>overall severity</td>
<td>-0,71</td>
<td>0,036</td>
</tr>
</tbody>
</table>

**Motor preparatory activity in BGTC loop:**

**Increase in right hemi:**
- Successful compensation strategy

**Decrease in left hemi:**
- link with stuttering pathology