HOW SENTIMENTAL ARE QUOTATION EXPRESSIONS?

A SENTIMENT ANALYSIS

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DEFINITION

Quotation expressions are expressions which refer to a direct or indirect speech representation (e.g. the verb says in She says: “I am happy.”).

GOAL

Find out how much information is stored in a quotation expression → Which role do quotation expressions (QE) play in understanding the sentiment of a direct/indirect speech representation (DISR)?

APPROACH

Data basis:
1,864 QEs and DISR from the Redewiedergabe-Korpus [1]

1) OpenNLPTokenizer [2]
2) MateLemmatizer [3]
3) Sentiment values from EmoLex (adjusted) [4]

RESULTS

<table>
<thead>
<tr>
<th>QE</th>
<th>DISR Neutral</th>
<th>Positive</th>
<th>Neutral</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td></td>
<td>5 %</td>
<td>95 %</td>
<td>0 %</td>
</tr>
<tr>
<td>Neutral</td>
<td></td>
<td>5 %</td>
<td>91 %</td>
<td>4 %</td>
</tr>
<tr>
<td>Negative</td>
<td></td>
<td>0 %</td>
<td>93 %</td>
<td>7 %</td>
</tr>
</tbody>
</table>

Examples:

<table>
<thead>
<tr>
<th>QE</th>
<th>DISR</th>
<th>Sentiment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Neutral</td>
</tr>
<tr>
<td>Positive</td>
<td>Der andere lachte: ›Nur ein gustus, Edmund!‹</td>
<td>&quot;The other one laughed: Only one gustus, Edmund!&quot; (from Theodor Storm: John Riew)</td>
</tr>
<tr>
<td>Neutral</td>
<td>Ich sage dir, du bist volle gesund.</td>
<td>&quot;I am telling you, you are totally fine.&quot; (from Aino Holz: Papa Hamlet)</td>
</tr>
<tr>
<td>Negative</td>
<td>»Was hast du mit dem Gelde gemacht?« fuhr ihn der Teufel an. &quot;What have you done with the money?&quot; the devil snubbed.</td>
<td>(from Georg Schambach: Das Schauteufelskreuz)</td>
</tr>
</tbody>
</table>

CONCLUSION

• QEs are indeed important to understand the sentiment of a DISR because it is most commonly used to mark a neutral DISR as positive/negative
• for the most part …
  ... positive QEs describe structural elements of a dialog (e.g. Anfrage (‘inquiry’), fortfahren (‘continue’), übereinkommen (‘bargain’))
  ... neutral QEs are verba dicendi erzählen (‘tell’), mitteilen (‘inform’), sagen (‘say’)
  ... negative QEs describe emotional aspects of a DISR (jammern (‘wail’), schluchzen (‘sob’), weigern (‘refuse’) )

RESOURCES