**People Do a Great Job Interpreting Written Sarcasm: The Importance of Context in Evaluating Intent**

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### ABSTRACT

We investigated students’ perceptions of sarcasm in written scenarios. Students completed an online survey, rating scenarios based on different components of sarcasm and sincerity. Results showed that students perceived scenarios intended to be sarcastic as rude, negative, and humorous. Results also imply that, similar to findings on the use of vocal cues in spoken sarcasm, contextual cues are important to the evaluation of sarcasm.

### INTRODUCTION

The intended meaning of a sarcastic utterance is not always clear (Roberts and Kreuz, 1994). Context is often the only cue a listener has to determine if an utterance is intended as sarcastic or sincere. A listener must infer sarcastic intent by the tone of voice or facial expression of the speaker.

Recent studies (Dress et al., 2008; Ivanko, Pexman, & Olinek, 2004) have shown that people often define and interpret sarcasm in different ways and that there are regional variations in the use and understanding of sarcasm. Whereas many studies (e.g., Woodland & Voyer, 2011) focus on the context and tone of voice used for verbal sarcasm, the role of context is likely even more important for written sarcasm (cf., Whalen, Pexman, & Gill, 2009).

Thus, the purpose of this study was to improve our understanding of how individuals perceive and respond to written sarcasm.

### METHOD

**Participants**  
UWSP students (N = 100; 35 male; 64 female; 1 undisclosed; mean age = 19.25) participated in this online study. Sixty first year students, 25 sophomores, 11 juniors, and 4 seniors participated in the survey for PSYC 110 course credit.

**Procedure and Measures**  
Participants evaluated 12 sarcastic and 12 sincere written scenarios adapted from Woodland and Voyer (2011).

<table>
<thead>
<tr>
<th>Intended Interpretation</th>
<th>Sample Scenario with Reaction Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sincere</td>
<td>You’re working on a difficult problem for an assignment with a friend and you solve the problem. Your friend says… You’re so smart</td>
</tr>
<tr>
<td>Sarcastic</td>
<td>You’re working on an easy problem for an assignment with a friend and you solve the problem. Your friend says… You’re so smart</td>
</tr>
</tbody>
</table>

Participants rated the scenarios using a series of 5-point Likert-type scales to indicate the perceived levels of sarcasm, humor, rudeness, negativity, positivity, and mocking tone.

### RESULTS

**Scenario Ratings**  
A series of paired samples t-tests showed significant differences between students’ responses to the written sarcastic and sincere scenarios across the mean of the six scales (see Table 1 below). Participants rated the sarcastic scenarios as being more sarcastic, more humorous, more negative (less positive), more mocking, and less polite than the sincere scenarios.

**Correlations**  
For the sarcastic scenarios, judgments of politeness and positivity were negatively correlated with perceived sarcasm (r = -.33 & -.32); judgments of negativity and mocking were positively correlated with perceived sarcasm (r = .55 & .60). The converse was true and stronger for the sincere scenarios.

Interestingly, when evaluating the sarcastic scenarios, judgments of sarcasm and humor were mildly correlated (r = .15). But for sincere scenarios, these judgments were positively correlated (r = .70).

### TABLE 1: MEAN RATINGS OF SCENARIOS

<table>
<thead>
<tr>
<th>Rated Variables</th>
<th>Sarcasm Scenario</th>
<th>Sincere Scenarios</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarcasm</td>
<td>3.752 (SD = .517)</td>
<td>1.364 (SD = .570)</td>
<td>31.717</td>
<td>97</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Humor</td>
<td>2.585 (SD = .702)</td>
<td>1.359 (SD = .506)</td>
<td>15.227</td>
<td>96</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Negative</td>
<td>2.995 (SD = .714)</td>
<td>1.156 (SD = .307)</td>
<td>21.822</td>
<td>96</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Mocking Tone</td>
<td>3.333 (SD = .742)</td>
<td>1.258 (SD = .410)</td>
<td>23.103</td>
<td>93</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Politeness</td>
<td>1.768 (SD = .530)</td>
<td>3.713 (SD = .701)</td>
<td>-22.918</td>
<td>94</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Positive</td>
<td>1.643 (SD = .590)</td>
<td>3.924 (SD = .617)</td>
<td>-24.699</td>
<td>92</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

### DISCUSSION

In general, the data shows the importance of context for understanding written language. This task required the participant to interpret the context correctly in order to correctly identify sarcasm.

The results imply that, similarly to contextual vocal cues in spoken conversation, context determines the level of perceived sarcasm versus perceived sincerity in written ambiguous response statements. Given that tone of voice is one of the main identifiers of spoken sarcasm, the parallel of context in written conversation makes sense.

Given the current findings on the perception of written sarcasm, future research will help to further develop and strengthen the literature within this subject. Specifically, using this study as a model and adding a verbal component would allow us to compare perceived written sarcasm with verbal sarcasm. This would provide us with a greater understanding of verbal versus written contexts and which, if either, has a greater effect on sarcasm perception.

### REFERENCES


