## "I think your going to like me": Typographical & grammatical errors influence our assessment of the message & the writer.

Julie Boland (*University of Michigan*) and Robin Queen (*University of Michigan*)

Successful language comprehension includes updating one's beliefs, and this process is influenced by how a message is written. For example, demand for a product increases when informal internet reviews are well-written and free of spelling errors (Li, Ghose, & Ipeirotis, 2011; Ghose & Ipeirotis, 2011). In this study, we hypothesize that the impact of an error in informal written communication depends upon the type of error, characteristics of the reader, the reader's standard language attitudes, and how much in common the reader feels he/she has with the writer.

We investigated typographical errors and two types of grammatical errors. 19 Participants imagined that they were evaluating email responses to an ad for a housemate. After reading each email, they evaluated the emails/authors on 12 Likert Scales (e.g., readability, similar to me, housemate-worthiness). In each of two experiments, there were 3 versions of each email presented to different participants: error-free (Experiments 1 and 2), homophonous grammatical errors like *your/you're* (Experiments 1 and 2), typos that resulted in a non-word (Experiment 1) or hypercorrections like ... asked John and I to... (Experiment 2). In addition to the Likert judgments, we collected questionnaire data on demographics (age, sex), literacy behaviors (How much do you text?), and attitudes (How important is good grammar?). In a second round of data collection, from 61 additional participants, we also collected data concerning personality ratings based on the "Big Five" personality traits.

We calculated how errors influenced the judgments relative to the error-free condition (error cost), as a function of error type, noticeability and participant characteristics. Readability was influenced by both typos and homophonous grammatical errors ("grammos"), but crucially not by hypercorrections ("hypos"). Costs for all three error types were influenced by participant characteristics (e.g., grammar attitude, texting and facebook behaviors) for certain Likert judgments. Typo costs were consistently higher than costs for hypos and grammos, but grammo costs were more likely tied to participant characteristics, especially grammar attitudes and some literacy behaviors. People who ranked higher on the "agreeable" scale were less likely to assign high grammo costs. Similarly, those who rated higher on the "conscientious" scale were more likely to assign high typo costs.

As expected, similarity judgments also modulated error costs. For example, readers who felt a writer was dissimilar did not want to hang out and did not find the email fun to read, regardless of whether there were errors in the email. In contrast, readers who felt similar to the authors wanted to hang out with them and found their email fun to read, but less so if the email contained errors.

In sum, grammos and typos carry greater costs and are more connected to reader characteristics than are hypos. We discuss these findings in the context of how we represent grammatical knowledge, notions of a grammatical standard, and links between non-standard grammar and social evaluation.

## References

- Ghose, A. & Ipeirotis, P. (2011). Estimating the Helpfulness and Economic Impact of Product Reviews: Mining Text and Reviewer Characteristics, IEEE Transactions on Knowledge and Data Engineering (TKDE).
- Li, B., Ghose, A. & Ipeirotis, P. (2011). Towards a Theory Model for Product Search, B. Li, A. Ghose, and P. Ipeirotis, Proceedings on the 20th International World-Wide Web Conference (WWW 2011).