

# Digital Immigrants Evaluate Text Messages Differently Than Digital Natives

Roger J. Kreuz  
University of Memphis

Alyssa N. Blair  
University of Memphis

Monica A. Riordan  
Chatham University



## Introduction

Punctuation and line breaks may be a marker of hostility in text messages. (Crair, 2013)

In text messaging, people have limited options for expressing affect, leading to the adoption and use of alternative linguistic cues. (Riordan & Kreuz, 2010a, 2010b)

It has been claimed that older users, or “digital immigrants,” may differ in their interpretation of these cues compared to younger users, “digital natives,” who are more accustomed to technology. (Prensky, 2001; Selwyn, 2009)

**Hypothesis:** Native users will interpret text messages differently than immigrant users.

## Method

142 participants (70 male, M age = 33) were recruited via Amazon Mechanical Turk to complete ratings of 16 scenarios using Qualtrics.

Each scenario was followed by one of four response conditions. Each participant saw equal numbers of each response condition:

Example: After a first date with someone you felt you got along well with you send the following message:

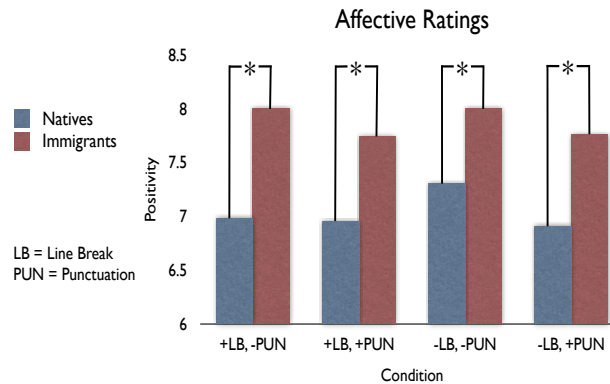
thanks for tonight i had a good time.

One of four responses presented:

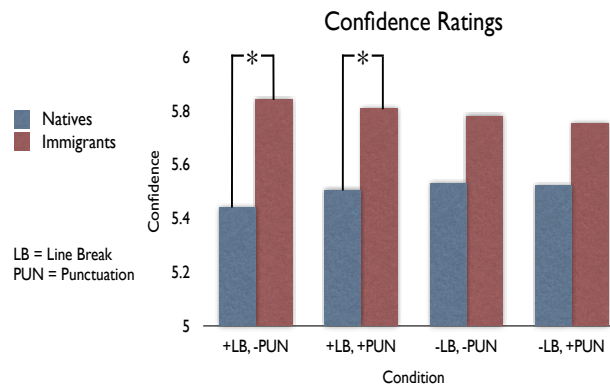
	Punctuation	No Punctuation
Line Break	yeah. me too.	yeah me too
No Line Break	yeah. me too.	yeah me too

Participants provided affective ratings of the responses from 1 (very negative) to 12 (very positive), and an indication of their confidence ranging from 1 (not confident at all) to 7 (very confident).

Participants were asked about their text messaging habits and some participants were asked to identify common text abbreviations.



**Figure 1: Natives interpret text message responses less positively than immigrants,  $*p < .05$ .**



**Figure 2: Natives are less confident in their affective ratings than immigrants,  $*p < .05$ .**

## Results

A linear mixed effect model found no main effects for line break or punctuation across conditions.

A median split separated individuals into either digital native or digital immigrant, resulting in 84 immigrants (born before 1984) and 58 natives (born after 1984).

A comparison of means revealed significant differences between age groups for affect in all conditions (Figure 1), and for confidence ratings in the line break conditions (Figure 2).

No difference was found between natives and immigrants in overall frequency of text messaging or in the frequency that they reported using text abbreviations.

## Discussion

Our hypothesis was partially supported: Immigrants rated responses more positively than natives and were more confident in those ratings for line break conditions.

Results suggest a possible difference in individual’s awareness or interpretation of cues based on age.

Interestingly, these effects occur despite a lack of difference in the frequency of text messaging between natives and immigrants.

In addition, natives were much better at recognizing common texting abbreviations (e.g. l8r, wyd, omw) than immigrants.

As a whole, these results represent one of the first quantitative explorations of the digital native/immigrant debate.

## References

- Crair, B. (2013, November 25). The period is pissed: When did our plainest punctuation mark become so aggressive? *The New Republic*. Retrieved July 21, 2014 from <http://www.newrepublic.com/article/115726/period-our-simplest-punctuation-mark-has-become-sign-anger>.
- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9, 1-6.
- Riordan, M. A., & Kreuz, R. J. (2010a). Cues in computer-mediated communication: A corpus analysis. *Computers in Human Behavior*, 26, 1806-1817.
- Riordan, M. A., & Kreuz, R. J. (2010b). Emotion encoding and interpretation in computer-mediated communication: Reasons for use. *Computers in Human Behavior*, 26, 1667-1673.
- Selwyn, N. (2009, July). The digital native – myth and reality. In *Aslib Proceedings*, 61, 364-379.