

Summary

Language Left Behind on social media Exposes the Emotional and Cognitive Costs of a Romantic Breakup

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The paper explores how different elements in language used on social media can reveal the emotional, analytical and cognitive effects on the individuals.

It examines posts of reddit users on different reddit groups (r/breakups, r/Divorce, r/offmychest, r/cooking) to evaluate the hypotheses that there are different stages and transitions that people go through before and after a breakup. These transitions can involve the internal decision-making stage to the stage where such concerns are communicated to the other person in the relationship and to finally the breakup stage.

Tools like LIWC are used to evaluate Analytic thinking, cognitive thinking, self-focus and collective focus. The idea behind all these parameters is that, after a breakup people usually look inwards to gain a deeper understanding of the situation and this can be monitored by the I-words used by a person. High rates of I-words are associated with modest increases in reports of depression, suicidal ideation, emotional upheavals etc. whereas collective focus or using we-words are linked with people's intent to continue the relationship and problem-solving behaviors. Multiple other studies point out the cognitive thinking analysis, like the study that shows that twitter posts of mothers that are going to develop postpartum depression give indications of such an event even before the baby is born, and about analytical thinking and how it is impacted by depression or uncertain events in a person's life.

The hypotheses that the paper evaluates are on the increase in usage of words related to cognitive processing around breakup time, language becoming less analytical, usage of more I-words and finally, the usage of collective focus words around breakups would first increase and then ultimately decrease.

The results corroborate with the hypotheses initially set out. There were 5000-7000 users selected on the reddit forums who were monitored for a year. The baselines were set using r/Breakups posts and r/Divorce posts separately and posts on other forums were used to analyze how the users wrote about things when they were not talking about their relationship. The graphical trends for analytical thinking showed a massive drop during the breakup time, while there was a spike in the cognitive processes around that time.

This study was repeated for multiple other reddit forums to establish much concrete trends. While the activity of the user showed no particular interesting features on posts made on r/Cooking, their analytical and cognitive thinking skills were shown to be badly impacted as per their posts on r/Divorce, r/offmychest etc.

This study was conducted with a scientific approach, but whether the users had their first language or native language as English was not considered as this would greatly impact the kind of narrative they build. Also, the majority of subjects were male, which may make the

approach a little biased or skewed towards a particular mindset and may not include data diversity.

In conclusion, the study highlights the potential of social media as a tool for identifying individuals who may be experiencing emotional distress following a romantic breakup. The analysis of language use on social media can provide valuable insights into an individual's emotional and cognitive state, allowing for early intervention and targeted support. The study's findings suggest that individuals may experience negative emotional and cognitive effects following a breakup, which may have long-term consequences.

References

- 1) Seraj, S., Blackburn, K. G., & Pennebaker, J. W. (2021). Language Left Behind on Social Media Exposes the Emotional and Cognitive Costs of a Romantic Breakup. *Proceedings of the National Academy of Sciences of the United States of America*, 118(7), e20171544118.