Why People Post

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Summary

People post again sooner after receiving fewer likes for their posts. This is because likes change users' perceptions of their current status (CS) more than users' expectations (ES). Hence, platform designs where users receive few likes most of the time are optimal to sustain content production

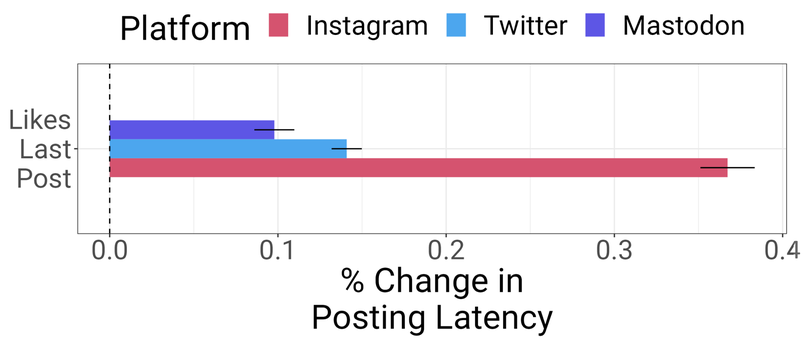
Motivation

- Theoretically, likes are conceptualized as platform rewards that reinforce posting (1, 2)
- However, most posts of users receive only few likes if any (Example: Median Tweet by Median User receives 0 Likes)
- RQs: Why do they still post? Why don't platforms change this?

Initial Finding

Empirically, how do users respond to receiving likes?

- **Data:** >1.2 Million Posts by 3.5k Users
- **Analysis:** Log-Log Fixed Effects Model
- **IV:** Likes for Last Post
- **DV:** Posting Latency (time until next post in seconds)



- **Result:** Users post again sooner after receiving fewer likes
- This cannot be explained by likes reinforcing users posting
- *Note:* we controlled for many potential confounders (incl. individual differences, time of posting, and more)

So, what can explain this reliable feature of posting?

Analytical Model

We propose a new behavioral model of reference-dependent valuation:

Users i sample opportunities to make their next post p+1. At each opportunity, they post if their expected subjective value of posting (ESV) is positive, which is given by the difference of current status perception (CS) and expectations (ES). Both are a function of likes received.

- $ESV(i,p) = ES(i,p) - CS(i,p)$
- $ES(i,p), CS(i,p) = \mathrm{f}(\mathrm{Likes(i,p)}, \dots)$

Assumption 1:
"Current status perception increase with likes received"

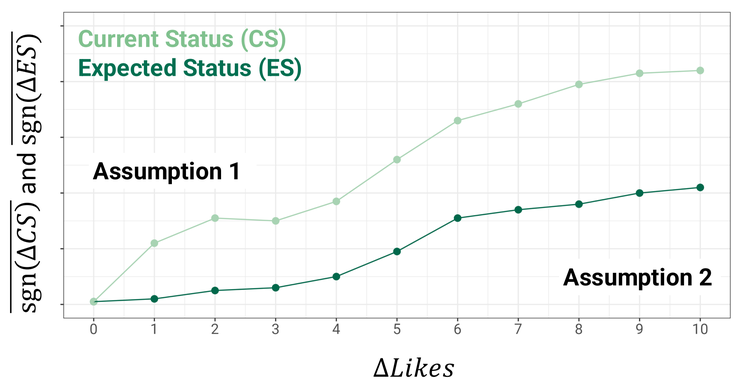
- $CS(i,p) > CS(i,q)\ \forall\ \mathrm{Likes(i,p)} > \mathrm{Likes(i},q)$

Assumption 2:
"Expectations increase less with likes received"

- $CS_{i,p} > CS_{i,q}\ \wedge ES_{i,p} - ES_{i,q} < CS_{i,p} - CS_{i,q}\ \forall\ \mathrm{Likes(i,p)} > \mathrm{Likes(i},q)$

Assumption Check

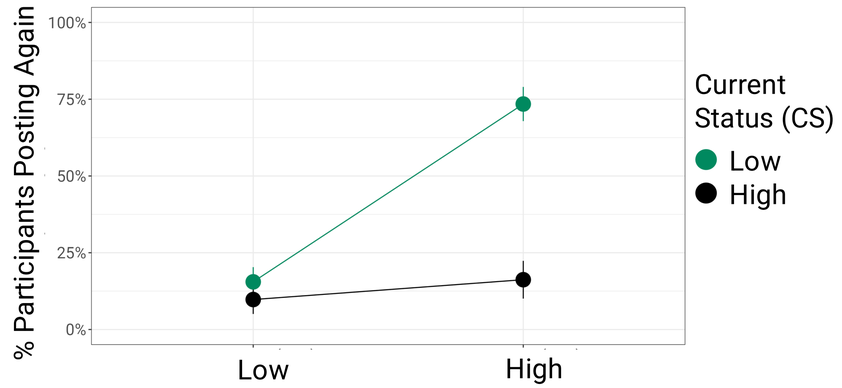
We verified these assumptions in a series of behavioral experiments (Interaction: b=.178, SE=.051, p<.001)



Experimental Test

Next, we experimentally tested the predictions of our model given that our assumptions held.

- **Data:** N=200 Social Media Users (Prolific)
- **Design:** 2 x 2 Between Subject
- **ES Manipulation:** Scrolling Newsfeed
- **CS Manipulation:** Likes for Last Post
- **DV:** Intent to Post Again (Incentivized)



- **Result:** Users post if they expect to improve their current status (Interaction: b=-2.129, SE=.829, p<.001). This was further corroborated by a mediation analysis (omitted here)

Implications

- Users who receive few likes have a low current status. They are most sensitive to positive expectations
- Platform designs where likes are rare but large maintain a low status and positive expecations for most users (we verify this in a model simulation, omitted here)
- However, such platform designs have been suggested to harm user mental wellbeing (3)

References: (1) Lindström et al. 2021, Nature Comm; (2) Da Silva Pinho et al. 2024, Sci Advances; (3) Nesi & Prinstein 2015, J Abn Child Psych

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