Negative Appearance Comparison (NAC): People see more High-NAC content on Explore than in Feed

[redacted]

Summary

- In Feed, people choose who to follow and thus express how much content associated with higher negative appearance comparison ("High-NAC" content, such as beauty and fashion topics) they want to see. However, for many people, our algorithms show them far more of that content on Explore than they've chosen to see on Feed.
- 17% of people see substantially more (at least 20 percentage points) High-NAC content in Explore than in Feed. It's worse for women and teen girls.
- Reducing an individual's exposure to High-NAC content on recommendation surfaces such as Explore, even just to comparable levels in their Feed (i.e., recommending High-NAC content at a rate similar to the amount that they already choose to see), may reduce negative appearance comparison for a sizable fraction of people while minimizing unintended negative outcomes.

Seeing High-NAC content is associated with feeling worse about one's body or appearance, so one way that we might reduce negative appearance comparison on Instagram would be to reduce the amount of High-NAC content that people see.

However, many people are interested in that kind of content, which centers on beauty, makeup, and fashion, and choose to follow accounts that post it. As such, uniformly reducing High-NAC content for everyone may run counter to what some people choose to use Instagram for. How then might we reduce High-NAC exposure while minimizing such potential negative impact?

One way would be to "cap" the amount of High-NAC content we recommend based on how much High-NAC people already choose to see, with one implicit signal of a person's preferred amount of High-NAC content being the amount of High-NAC content that they see in their Feed – content produced by accounts they've chosen to follow. This way, our algorithms don't unintentionally worsen negative appearance comparison by showing people more than their individual cap. For example, if 20% of what a particular teen girl sees in her Feed is High-NAC content, we would want to ensure that no more than 20% of Explore is High-NAC.

For a sizable portion of people (about 17% of IG WAP), we recommend substantially more High-NAC content in Explore (20 percentage points more) than what people choose to see in their Feeds.

A significant fraction of people see more High-NAC content in Explore than in Feed. Examining a 1% sample of people in Australia, France, Japan, the UK, and the US during July 1-7, 2021, we find that half of people see proportionally more High-NAC content in Explore than in Feed, while 17% see at least 20 percentage points more High-NAC content in Explore. These rates were higher for women and teen girls, and lower for men and teen boys.

A sizable fraction of people see far more High-NAC content in Explore: 10% of people saw at least 32 percentage points more High-NAC content in Explore than in Feed. On average, 13% of content they saw in Feed was High-NAC, but 68% of the content they saw in Explore was High-NAC. A potential intervention that caps High-NAC content in Explore might benefit this group of people people the most.

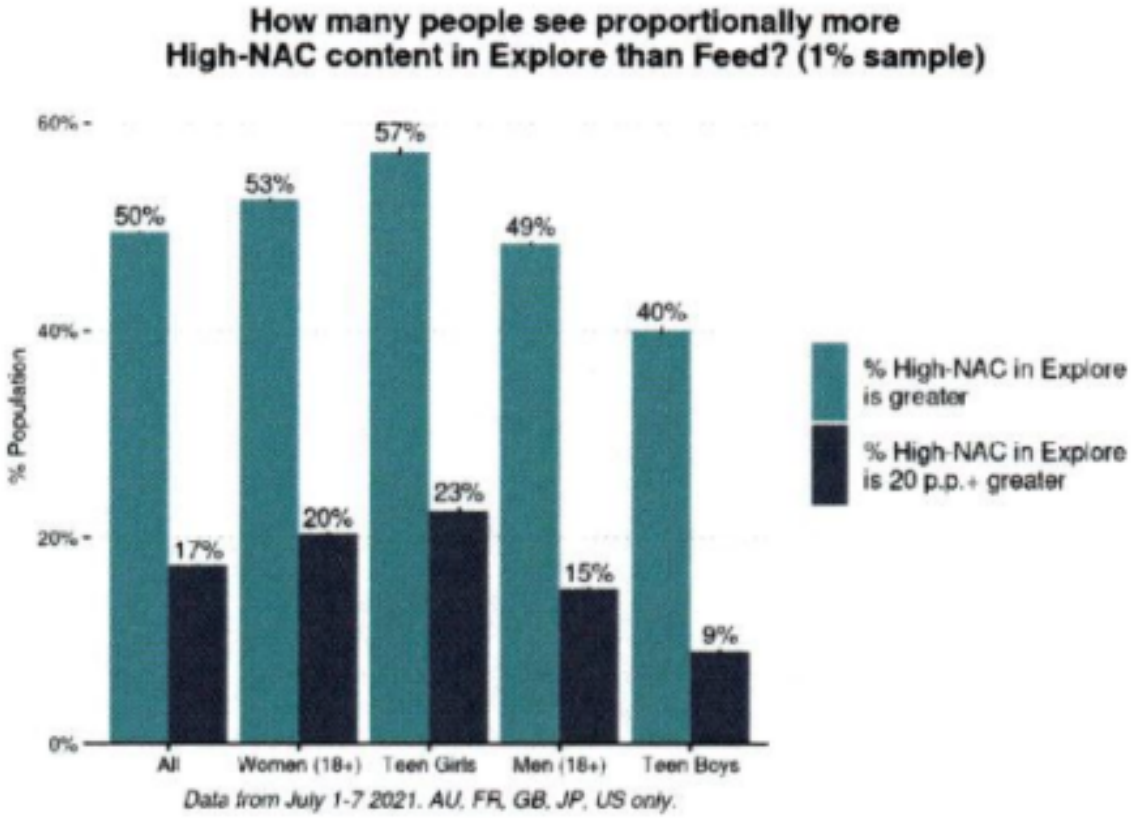
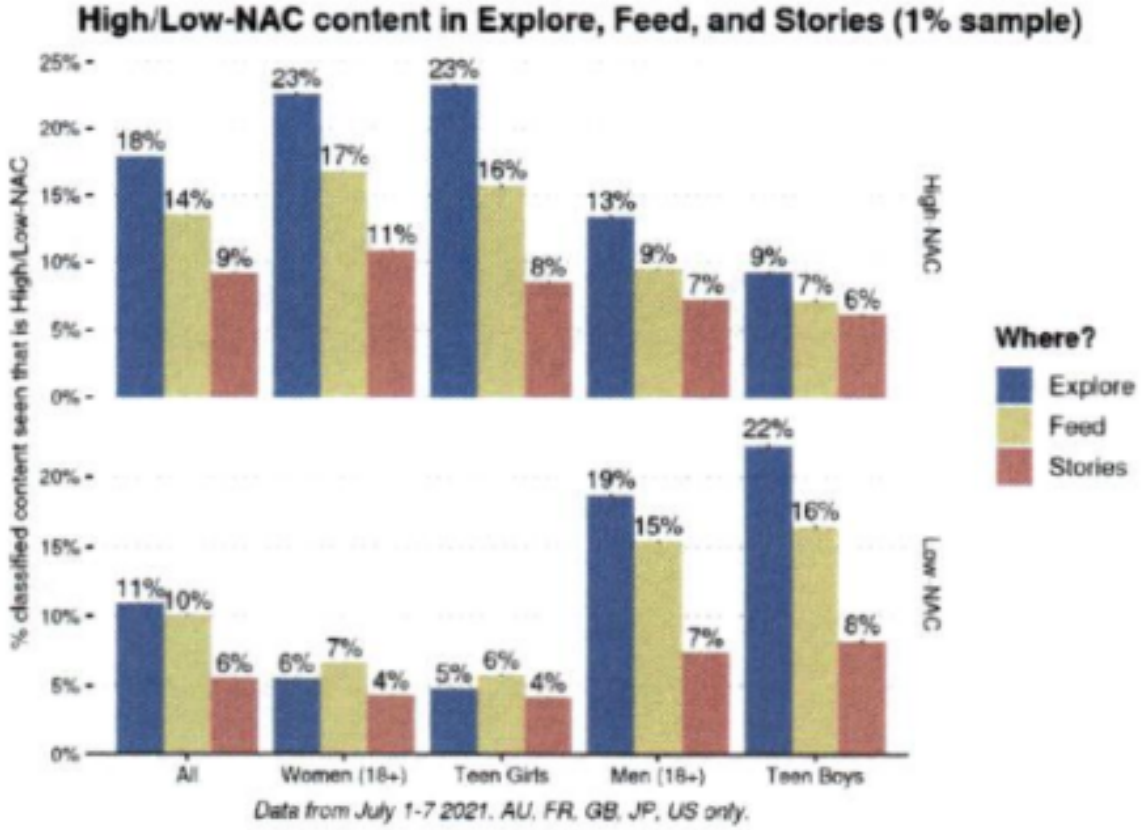


Figure 1. Half of IG users (50%, light green bars) see more negative appearance comparison content (High-NAC content) on Explore than in Feed. For 17% of IG users, they see substantially more (20 percentage points or more) in Explore than Feed (dark green bars). These differences affect a greater proportion of women and teen girls than men and teen boys.

High-NAC content is most prevalent in Explore. Across all users, 18% of views in Explore were of High-NAC content, compared to 14% in Feed and 9% in Stories. Again, these rates were higher for women and teen girls, and lower for men and teen boys (Figure 2).

Low-NAC content (content associated with lower levels of negative appearance comparison, such as outdoor activities, soccer, and art) appeared at roughly the same proportions in Explore and Feed (11% and 10%, respectively) and was less common in Stories (6%). While women and teen girls saw similar levels of Low-NAC content across all surfaces, men and teen boys saw proportionally more in Explore and Feed.



Top panel: Average levels of High-NAC content by surface. People see more High-NAC content on average on Explore (18% of views on Explore) than they see on Feed and Stories (14% and 9% respectively). These differences persist across demographic groups. Bottom panel: Average levels of Low-NAC content by surface. In general, people see about the same amounts of Low-NAC content on Explore and Feed, and slightly less in Stories.

Some people see far more High-NAC content in Explore than in Feed. At the beginning of this note, we picked a substantial difference (20 percentage points) between Explore and Feed. Many more people still experience more High-NAC content in Explore than Feed, but with smaller deltas between the surfaces. As Figure 3 shows, for example, about half of people on IG see more High-NAC content on Explore than Feed (by any threshold). (At the 50% mark on the y-axis, the point on the curve is 0, indicating that the proportions of High-NAC content in Explore and Feed are equal). More concerningly, about 10% of people see about 30 percentage points more High-NAC content on Explore than Feed (rightmost box in Figure 3, of 32.5 percentage points).

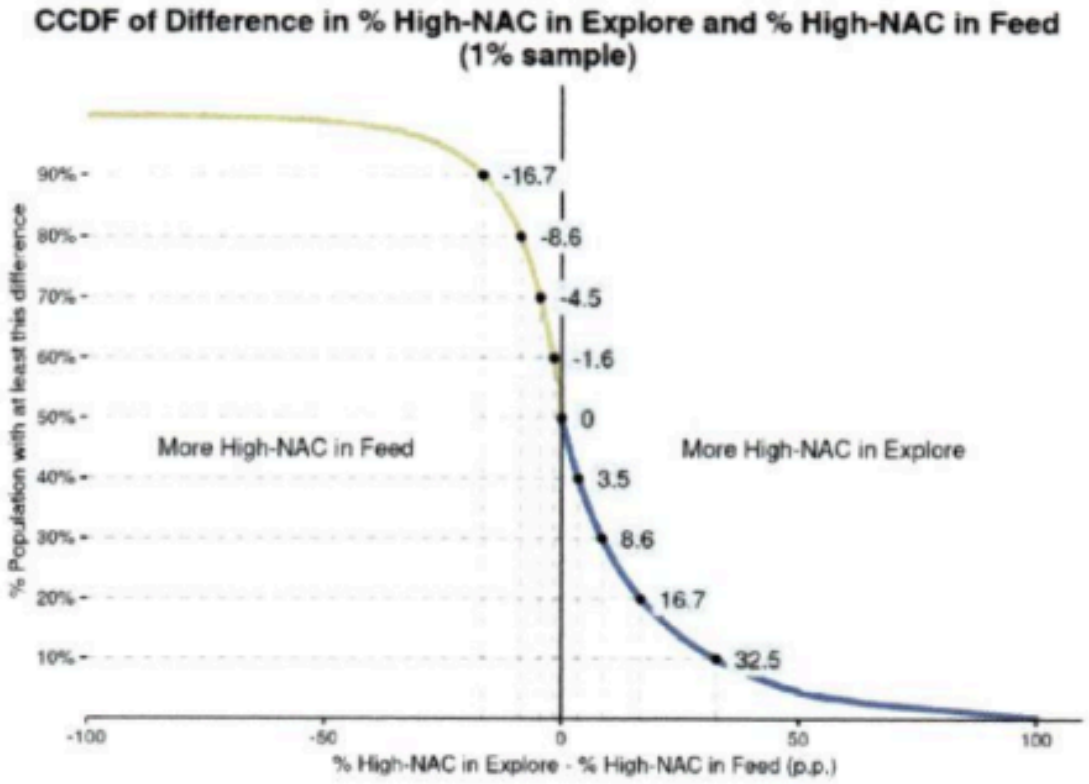


Figure 3. About half of IG users see more High-NAC content in Explore than Feed. About 10% of IG users see 33 percentage points more High-NAC content in Explore than Feed. Shaded boxes show the delta between Explore and Feed.

Why is High-NAC more prevalent in Explore? While one might expect top accounts to show up more often in Explore than in Feed, top accounts show up similarly often: 56% of viewed content in Explore was from top accounts, while 58% of viewed content in Feed was from top accounts (Figure 4). However, the proportion of High-NAC content from top accounts is higher in Explore than in Feed. 19% of content from top accounts was High-NAC in Explore, but only 13% of content from top accounts was High-NAC in Feed; High-NAC Content from non-top accounts was also higher in Explore than in Feed (16% vs. 12%).

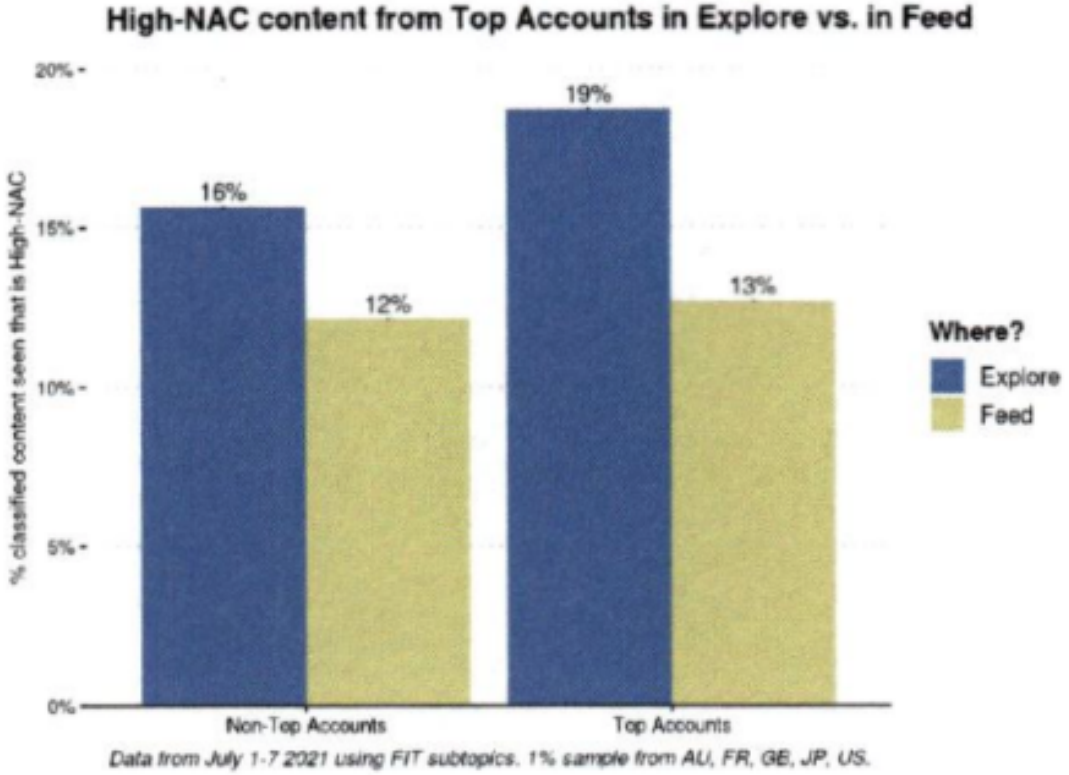


Figure 4. Content from top accounts seen in Explore is more likely to be High-NAC than content from top accounts seen in Feed (19% vs. 13%).

These data are not causal; we do not know whether exposure to High-NAC content causes negative appearance comparison and it likely varies between individuals. However, on average across large numbers of people, people who see more of it experience worse negative appearance comparison.

The findings suggest that **our algorithms may be increasing exposure to High-NAC content beyond the preferences that people have indicated by the choice of accounts they follow.** There may be an opportunity to "bug fix" the Explore algorithms to ensure that they are not inadvertently increasing negative appearance comparison.

And if the proportion of High-NAC content that people choose to see in Feed is a good indicator of their preference for such content, capping High-NAC in Explore may potentially result in increased engagement in Explore.

Notes

- The present analysis was limited to the above 5 FCI countries where the adult classifier has been validated. Findings were qualitatively similar using an independent sample of people who responded to the appearance comparison survey using December 2020 data.
- Borderline content, including adult nudity and sexual activity (AN&SA), suicide and self-injury (SSI) and soon eating disorder (ED) content is already being removed from recommendation surfaces (e.g., Explore) for all users (2).
- Code available in this ANP notebook.