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Talkin' Bout My Generation: Linguistic Differences Among Gen Z, Gen X, and Millennial Women on Instagram

Research Article

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Abstract

We examined language use in captions of public Instagram accounts of women of different generations and ethnicities to see whether use of selected pronouns (I, we) and language of clout, tone, authenticity, and analytical thought reflected generational-related differences in personal characteristics, interests, and social behavior. A total of 3605 Instagram captions from public accounts were captured across a 12-month period (March 2023 to March 2024), and each was subjected to analysis by the Linguistic Inquiry and Word Count [4]. Results showed that women of Gen Z captioned their posts differently than those from Generation X and Millennials, using fewer pronouns overall than Gen X and more "I" focused speech compared to Millennials. Gen Z women also focused on others less and had less clout (i.e., power, confidence) in their language, but were more authentic, than members of Gen X and Millennials; they also showed as much analytical language as Millennials. BIPOC women also used more pronouns, in particular "I," while focusing on emotional tone more than analytical language, effecting a more story-like style. These findings are linked to generational differences documented in other research (see [33]) that show that members of Gen Z are more self-focused and personal-brand oriented in comparison to other generations.

Keywords: Generations; Language; Instagram; Gen Z; Gen X; Millennials.

Introduction

"The young people of today think of nothing but themselves. They have no reverence for parents or old age. They are impatient of all restraint. They talk as if they alone knew everything and what passes for wisdom with us is foolishness with them" Peter the Hermit, 1274 [10].

"Hope I die before I get old" Peter Townsend, 1965.

Complaints about people of different generations is more than just fodder for chat among peers. Negative views of members of different generations lead to more than catch phrases ("Ok Boomer," "iPad kids," "Generation Slacker") and may create stereotypes that have serious negative effects in both interpersonal and work settings [28]. Yet, research has shown people born during different time periods are often similar along several dimensions, and at the same time systematically different from those before and after (see Twenge, 2023 [33] for a comprehensive review). The generations, or birth cohorts, are affected by societal change, major world events, and technological advancements ([36, 39]). That is, members of different generations have different personal characteristics, life goals/social values, levels of concern for others, engagement with community, reliance on technology, mental health, and well-being.

Members of "Gen X" (born 1965 to 1980, per Beresford Research, 2023) are often compared to "Baby Boomers," who are the generation immediately preceding them. According to [33] summary, members of Gen X are educated, adept with technology, and independent, having been the first real generation of "latchkey kids". They are more socially and ethnically diverse, and more liberal, compared to Boomers. They are motivated by status and material goods and seek jobs with financial security [37]; yet they are unlikely to derive meaning and purpose from work, focusing on a work-life balance. Their teenage years saw a marked increase in crime in the US, perhaps contributing to cynicism and distrust of institutions. While their teenaged years showed some instability, they have transitioned into mentally-healthy and some-

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what stable adults - resilient, even, during the pandemic [12]. Another Gen X characteristic is a tendency to be self-confident in their abilities, a confidence that may not actually be warranted [9].

Millennials (occasionally referred to as "Gen Y") were born between 1981 and 1996, typically to Boomer parents. Like those who will come after (Gen Z), they are extrinsically motivated by money and public image over work, and they show less interest in the community, charitable giving, government, and finding themselves [34]. They do not adhere to religious traditions, although they may claim a form of spirituality (Jackson et al., 2021); they show low civic engagement [34], although they are more likely to be liberal and embrace liberal causes. Like members of Gen Z, they are self-confident, perhaps brashly so, having been raised when they were told that feeling good about themselves and having self-esteem was paramount [11]. Sometimes Millennials are called "generation me" because of their tendency to think highly of themselves and because levels of narcissism increased as they came of age [11, 38]. They tend to be educated, but somewhat entitled, doing well financially but while claiming that they are not [33], a tendency likely exacerbated by comparisons on social media. While they have the largest college debt, they also have smaller families (and postponed having them), signaling a delay in adulthood overall [33]. They were the earliest adopters of the Internet and technology, having developed alongside the Internet's earliest developments. Unlike Gen X, they were happy and self-confident as teens but are less so as adults.

Members of "Gen Z" (b. 1997-2012) are sometimes labeled "iGen", because they were the first to be tethered constantly to media, family, friends by their Smart phones, and as teenagers they drive, date, and drink less than teens of previous generations [32][33]. They are committed to diversity and fairness and are more diverse than the generations before them. Yet, they are themselves easily offended by slights and tend to perceive the world as filled with discrimination. While they eschew the status quo and are less materialistic, they are still concerned about financial stability and have concerns and fears about the world and their future—concerns exacerbated by the pandemic [33]. Most notably, they are screen attached, which has reduced both physical activity and genuine social connections. Indeed, members of Gen Z are constantly connected but report being very lonely [35], and social media, particularly, has left more Gen Z members depressed, feeling as though they are left out, unsatisfied, and alone [36, 39]. Twenge [33] notes this trend has led to a "historic mental health crisis", including a doubling of depressive symptoms among teens just in the last 15 years, particularly among heavy "screen" users [21]. Like Millennials, Gen Z exhibited poor coping, more mental health issues, and an increase in substance use during the pandemic [12].

Differences in personality as a function of generation can be seen in many ways, including through tacit measures, such as language. For example, DeWall et al. (2011 [9])examined song lyrics in popular songs from 1980 to 2007, finding that lyrics paralleled personality changes by generation. Across the time period of study, the lyrics were more self- vs other focused, more negative or antisocial, and less positive and less focused on social interactions. DeWall et al., [9] used the Linguistic Inquiry and Word Count (LIWC; [4]) for their analysis. The LIWC is a closed language analysis program that distributes both the content of speech, as well as the manner of expression, into over 90 predetermined categories that capture over 80% of most text [4]. The Program is based on analysis of over 200 million words across many contexts, and robust psychometric properties have been established on a sample of 31 million words [4]. The Program's dictionary includes over 12,000 words and word stems which are used to analyze text of all sorts. The dictionaries were built from samples of spontaneous speech, articles, novels, plays, formal speeches, social media posts and/or captions, essays, and personal writing under many different circumstances. The LIWC can describe a writer or speaker's age, sex, happiness level, cognitive/analytical ability, emotional concerns, education, and even personality [8, 26].

Pronoun use, for example, provides a wealth of information about a speaker or writer; appropriate pronoun use helps people navigate the social milieu [26]. Using "I" may signal an introspective or self-focus, particularly if the self-focus is a concern [3][5] [23]. In contrast, using "we" can signal an interest in others and a desire to include them [18, 25, 26]. Using "I"can also reflect status [1, 17]; surprisingly, lower-status people use "I" more, perhaps in an effort to seem genuine [1], or because of self-focus. "I" is also more prevalent in language of women and younger adults [19].

Pronouns are not the only linguistic markers that are linked to personal states and traits. For example, thought, causality, and insight are seen in "analytical" language, used when people provide explanations or describe events. Analytical language is more common in men [7, 24] and among high-status persons on social media [7]. Paradoxically, it is not necessarily convincing or likable on social media [22], perhaps because people are increasingly using informal language, even in venues considered to be formal such as on the news and in speeches [16], leaving complex issues stripped down to small bullet points that lack logical connections. More simple language may thus be more acceptable, and used more often, among Gen Z. Language that is powerful, confident, and used by persons with status is characterized as high in "clout" (i.e., power and confidence; [40]). Emotions (positive, as well as multiple types of negative emotion) are easily located in language and are seen routinely on social media, particularly among women users [6, 19]. Finally, "authenticity" is marked by direct language that lacks hedging, is open, and shows sincerity [4].

In sum, language use among people differs systematically along several dimensions, and may therefore illuminate personality differences in members of various generations. Spontaneous text, such as is seen on social media, is an avenue to examine whether generational differences in personal concerns and language style manifest themselves in daily behavior. Instagram is a particularly popular social media platform. While Instagram focuses primarily on presentation of videos and photos, it also includes captioning of visual displays, and it is those captions that are the focus of our study. A simple Google search of "how to write a good Instagram caption" yields over 300 search pages, as well as links to AI platforms that will do it for you. Moreover, Instagram has over 200 billion monthly users (per backlinko.com), making it a good sample for us to examine persons of different generations. Our sample included only women for ease and also because 56% of Instagram users in the US are women (backlinko.com). Our purpose was to examine pronoun use, particularly "we" and "I," in order to see whether these pronouns differed predictably among generations. More specifically we predicted less "we" and more "I" among Gen Z. We also examined analytic language, authenticity, emotional tone, and clout, predicting that Gen Z Instagram

users, the youngest in the sample and those most likely to have shared their lives on social media, would be more likely to exhibit more tone and authenticity, but less clout and analytic language, than Millennials and members of Gen X.

Method

Sample

A total of 3605 posts from public Instagram accounts by woman of various generations were gathered during the spring and fall of 2023 and the spring of 2024. Per Beresford Research (2023), generations were defined as follows: Generation X 1965-1980, Millennials 1981-1996, and Generation Z 1997-2012. We further also categorized whether the women were BIPOC (Black, Indigenous, or of color) or not, using context cues and profile photo (and operating on the assumption that the profile photo was the user). Table 1 displays the number of posts in the sample for each target group.

For an account to be eligible, age had to be clearly defined somewhere in the profile, either stated clearly or determined via context (e.g., high school graduation date). Accounts also had to have fewer than 3,000 followers to avoid posts written by celebrities and influencers. Some accounts were also found using profile searchers online, where a following preference could be set to generate accounts with under 3,000 followers.

Posts were gathered by searching under the hashtags of the months (#January), year (#2022 or #2023), graduation dates (#classof1980), and holidays (e.g., #halloween, #christmas). Posts were also gathered through the following lists of accounts catered to certain generations, e.g., Gen Z could be found through pages such as "Gen Z Humor."Once an account met these requirements the user's last three post captions were copied and pasted-into separate word documents (one per caption) for analysis.

Dependent Measures

All linguistic measures were analyzed via the Linguistic Inquiry and Word Count (LIWC) program [4]. Our main focus was to examine function words, specifically pronouns, and also the variables termed summary variables by [4].

Pronouns. Function words include pronouns, as well as prepositions, articles, and adverbs. While there are many types of pronouns (including first, second, and third person singular and pluralpersonal pronouns), our focus was on total pronouns, as well as "I" and "we." The LIWC calculated these as a percentage of total words used.

Summary variables. While we could look at any number of linguistic variables, many would represent only a small percentage of language used. Yet, with a sample as large as ours differences that are statistically significant, yet somewhat meaningless (such as 1.2higher than 1.1), could be located. However, the summary variables comprised a larger percentage of use. per Boyd et al., 2022 [4] these are not mere mathematical summations of various subcategories, but percentiles generated from comparisons to standardized scores from the LIWC dictionary, thus providing a snapshot of linguistic behavior that is seen across contexts. These summary variables have been used in related research (see Wheeler et al., 2021 [40]) and were: Clout, Analytic Language, Authenticity, and Tone. Note that if no variables that contribute to any one of these (e.g., positive emotion would be a type of "tone") then that post was classified as missing that summary variable, rather than 0 (Boyd et al., 2022 [4]).

Results

Overview

Each variable of interest (pronouns, "I," "we" and the four summary variables) was entered separately into 2 x 3 (Race/Ethnicity x Generation) ANCOVAs, holding constant word count of the captions. Word count was used as a covariate as the word count differed as a function of both generation, $F(2, 3599) = 107.33$, $MSE = 1938.84$, $p < .001$, $\eta_p^2 = .06$, and race/ethnicity, $F(1, 3599) = 7.72$, $p = .005$, $\eta_p^2 = .002$. Post-hoc pairwise comparisons showed that caption length for Gen *Z* ($M = 11.29$, $SD = 26.04$) was considerably shorter than length for members of members of Gen *X* ($M = 36.89$, $SD = 55.02$) and Millennials ($M = 26.88$, $SD = 47.29$); Gen *X* and Millennials were also different, all *p*s < .001. Non-BIPOC women ($M = 26.86$, $SD = 47.81$) had a higher word count than BIPOC women ($M = 22.33$, $SD = 45.52$).

Pronouns

In order to examine generation and race/ethnicity differences in pronoun use, a 2 x 3 between-subjects ANCOVA (Race/Ethnicity x Generation), holding word count in the caption constant as a covariate. The means and standard deviations for pronoun uses of all types are located in Table 2. There was a main effect of generation, $F(2, 3598) = 6.10$, $MSE = 172.14$, $p = .002$, $\eta_p^2 = .003$. Post-hoc pair wise comparisons demonstrated that women of Gen *X* ($M = 14.83$, $SD = 11.49$) used more pronouns than did Millennials ($M = 12.80$, $SD = 12.62$, $p < .002$ and those from Gen *Z* ($M = 12.60$, $SD = 15.03$), $p < .004$. Millennials and Gen *Z* did not differ in their pronoun use, $p = .700$. There was also a significant main effect of race /ethnicity significant, $F(1, 3598) = 10.25$, $p = .001$, $\eta_p^2 = .003$ as BIPOC women ($M = 14.06$, $SD = 13.86$) more than non-BIPOC women ($M = 12.82$, $SD = 12.57$)

Table 1. Distribution of the Sample by Generation and Race.

	Gen X	Millennial	Gen Z	Total
Non-BiPOC	652	550	651	1853
BiPOC	578	522	652	1752
Total	1230	1072	1303	

Note. Gen X were born between 1965 and 1980; Millennials were born between 1981 and 1996; and Gen Z are those born after 1997 (to 2012 in our sample).

Table 2. Means and Standard Deviations for all Pronouns, I, and We in Instagram Captions According to Ethnicity/Race and Generation.

	Race/Ethnicity					
	Non-BIPOC			BIPOC		
	Generation					
	X	Millennials	Z	X	Millennials	Z
All Pronoun	14.72 (11.08)	11.94 (11.61)	11.67 (11.41)	14.96 (11.94)	13.71 (13.54)	13.54 (15.57)
I	5.13 (7.08)	4.62 (8.25)	5.33 (10.48)	5.85 (8.33)	5.12 (8.44)	6.16 (10.14)
We	1.21 (3.71)	1.17 (3.83)	0.79 (4.05)	1.17 (3.44)	1.32 (5.77)	0.29 (2.66)

Note. Numbers reflect the percentage of total language for each category.

Table 3. Means and Standard Deviations for Summary Variables (Analytical, Clout, Authenticity, and Tone) in Instagram Captions According to Ethnicity/Race and Generation.

	Race/Ethnicity					
	Non-BIPOC			BIPOC		
	Generation					
	X	Millennials	Z	X	Millennials	Z
Analytic	47.32 (35.75)	53.5 (37.05)	52.25 (41.09)	46.8 (36.77)	51.09 (37.83)	47.65 (41.14)
Clout	52.99 (40.32)	56.7 (40.95)	47.88 (43.48)	54.15 (41.11)	58.28 (41.52)	43.41 (43.94)
Authentic	66.28 (34.9)	67.09 (35.76)	75.73 (33.43)	62.89 (36.34)	66.66 (36.49)	72.09 (36.02)
Tone	77.72 (32.37)	80.24 (32.61)	84.09 (32.31)	80.84 (31.37)	87.65 (26.56)	85.82 (31.65)

used pronouns. The interaction was not significant, $F(2, 3598) = 1.34$, $p = .262$.

What sorts of pronouns were affected by race/ethnicity and generation? For "I" use, there was a main effect of generation $F(2, 3598) = 3.52$, $MSE = 74.27$, $p = .030$, $\eta_p^2 = .002$, with Gen Z ($M = 5.75$, $SD = 10.32$) higher than Millennials ($M = 4.86$, $SD = 8.34$), $p = .008$; neither Gen Z nor Millennials were different from Gen X ($M = 5.47$, $SD = 7.70$), $ps = .237$ and .140, respectively. Ethnicity/race also produced a main effect, $F(1, 3598) = 5.75$, $p = .017$, $\eta_p^2 = .002$. BIPOC women ($M = 5.75$, SD = 9.08) used more pronouns than non-BIPOC women ($M = 5.05$, $SD = 8.74$). The interaction was not significant, $F(2, 3598) = .08$, $p = .921$.

Means and standard deviations from the 2 x 3 (Race/Ethnicity x Generation) ANCOVA on use of "we" are located in Table 2. There was a main effect of generation, $F(2, 3598) = 10.79$, MSE = 15.68, $p < .001$, $\eta_p^2 = .006$. Members of Gen X ($M = 1.19$, SD = 3.58) used the first-person plural at the same rate as Millennials, ($M = 1.25$, $SD = 4.87$), $p = .665$, but used "we" considerably more than members of Generation Z ($M = 0.54$, $SD = 3.43$), both ps < .001. Neither the main effect of race/ethnicity, $F(1, 3598) = .91$, $p = .34$, nor the interaction, $F(2, 3598) = 2.26$, $p = .105$, was significant.

Summary Variables

Four separate 2 x 3 (BIPOC/non x Generation: X, Millennial, Z) ANCOVAs on the large language categories (analytic, clout, authentic, and tone), holding constant word count, were calculated. Means and standard deviations from these analyses are located in Table 3. As noted previously, not all members of the sample produced data in these categories; nonetheless, most captions in our sample are included in these categories. The *Ns* are as follows: Analytic = 3041, Clout = 2486, Authenticity = 2943, and Tone = 2156.

For analytic language, there was a main effect for generation, $F(2, 3034) = 3.92$, $MSE = 1459.42$, $p = .020$, $\eta_p^2 = .003$, and post-hoc pair wise comparisons showed that Millennials ($M = 52.33$, $SD = 37.43$) showed more analytical language in their captions when compared to Gen X women ($M = 47.08$, $SD = 36.21$), $p = .006$, but not when compared to captions of Gen Z ($M = 49.93$, $SD = 41.16$), $p = .377$. Gen X and Gen Z did not differ in analytic language, $p = .068$. Additionally, there was a small main effect for race/ethnicity, $F(1, 3034), = 3.87$, $p = .049$, $\eta_p^2 = .001$, as non-BIPOC women ($M = 50.78$, $SD = 37.99$) used more analytic language than BIPOC women ($M = 48.41$, $SD = 38.67$). The interaction was not significant, $F(2, 3034) = .68$, $p = .507$.

The analysis for the language of clout produced a main effect for generation, $F(2, 2479) = 17.87$, MSE = 1743.85, $p < .001$,

η_p^2 = .014. Post-hoc pair wise comparisons demonstrated that clout language was lowest among Gen Z (M = 45.52, SD = 43.75) compared to both Gen X (M = 53.54, SD = 40.68), p< .001, and Millennials (M = 57.47, SD = 41.21), p< .001. However, Gen X and Millennials did not differ in the percentage of their language concerned with Clout, p = .08. Clout was not affected by race/ethnicity, F(1, 2479) = .23, p = .631, and its interaction with generation was not significant, F(2, 2479) = 1.21, p = .299.

The 2 x 3 ANCOVA for authenticity showed a main effect of generation, F(2, 2936) = 14.93, MSE = 1256.97, p < .001, η_p^2 = .01. Post-hoc comparisons showed captions from Gen Z (M = 73.93, SD = 34.77) included more authentic language than those from members of Gen X (M = 64.71 SD = 35.60), p < .001, and from Millennials (M = 66.88, SD = 36.09), p < .001, although the latter two groups did not differ, p = .213. There was also a significant effect for race/ethnicity, F(1, 2936) = 3.96, p = .047, η_p^2 = .01, with more authentic language from non-BIPOC women (M = 69.49, SD = 34.95) than BIPOC women (M = 67.13, SD = 36.46). The interaction was not significant, F(2, 2936) = .58, p =.561.

The ANCOVA for tone, a measure of emotion contained in language, revealed no significant effect for generation, F(2, 2149) = 2.75, MSE = 951.81, p = .064; however, the main effect of race/ethnicity was significant, F(1, 2149) = 7.02, p = .008, η_p^2 = .003. BIPOC women (M = 84.45, SD = 30.12) showed more emotional tone in their captions than did non-BIPOC women (M = 80.27, SD = 32.51). The interaction was not significant, F(2, 2149) = 1.52, p = .219.

Discussion

Our results showed that Instagram captions from women of Generation Z (those in their 20s) were different from those from Generation X (women in their late 40s and 50s) and Millennials (in their 30s and early 40s), including fewer pronouns than those in Generation X, and more "I" use, than Millennials. The frequency of the use of the word "we" and language regarding clout were seen less in Gen Z compared to other generations. Members of Gen Z used less analytical language compared to those in Gen X, but not Millennials. However, women of Gen Z showed a higher use of authentic language than women of the other generations studied. Surprisingly, tone did not differ significantly according to generation. Gen Z captions were less wordy than those of Millennials and Gen X; the latter group had far longer captions than either of the other groups. Differences due to race/ethnicity paralleled some of the generational findings. Like women of Gen X, BIPOC women had shorter captions and used more pronouns, particularly the word "I." They also showed more emotion through tone, but their language included less analytic and authentic language.

For members of Gen Z, the use of "I" may have signaled introspective self-focus or self-concerns, as members of Gen Z express personal worries [3, 33]. Or"I" use may have reflected a personal, story-telling, narrative style, rather than an analytical explanatory one [8], confirming research [19] showing that younger adults use "I" on social media more than other adults. Neither of those reasons explain why Gen X also used more "I" language than Millennials, unless for Gen X the language reflected the confident self-focus that marks Gen X [9]. However, the tone or emotion of posts did not differ significantly among generations. Reflecting a shift away from communitarian values seen in Gen Z [34], they included and showed interest in others by using "we" far less often than did members of Gen X and Millennials. BIPOC women also used "I" more often, which (coupled with less analytic language) suggested that BIPOC women were likely using a more narrative, story-telling style (including emotional tone), which is actually preferred by most users on social media [22]. Using "I" signals status [17]; surprisingly, lower-status people use "I" more on social media, perhaps in an effort to appear genuine with personal information [1].

Members of Gen Z used more authentic language compared to Gen X and Millennial women, an unsurprising finding in given that authentic language is open and direct [4]. Moreover, recent research [29] has revealed that, among younger social media users, "being yourself" in public and showing self-focus is important to self-presentation and is away to distinguish yourself and curate your "brand" in contrast to others. For BIPOC women, hedging may have been a better strategy. Because they were being more personal as well as emotional (as seen through tone measures), they also may have needed to be more careful, although that was not a strategy seen among Gen Z women as a whole.

Analytical language and linguistic markers of clout were seen more in Millennials than in Gen Z, and (for analytical language) women of Gen X. It is not surprising that Gen Z members showed little clout, as they are younger and may therefore not use the language of power because they have less of it compared to older persons. Additionally, Gen Z were talking about themselves, authentically and informally, and so would be expected to have less analysis: explanation and justification may not be necessary when presenting the authentic self. Additionally, analytic language is complex and viewed as unlikable on social media [22] and does not reflect an increasing trend toward simple language [16]. Millennials (ages late 30s to early 40s) may have been more likely to be discussing work and discussing other people in addition to themselves; by their age they may have higher status, and analytic language in social media is seen in persons with high status [7]. BIPOC women, too, kept their captions personal ("I"), shorter, and emotional, but also careful, rather than explanatory.

Surprisingly, emotional tone was not significantly differentially present according to generations (p = .06), perhaps because all captions including a high percentage of emotion (M = 82.2%). More tone was expected among Gen Z captions, but not only were there no significant differences in tone according to generation, Gen Z captions included less tone overall. Gen Z were presenting themselves, authentically, as they are-but BIPOC women may have been saying how they felt about things.

We note that our data located significant differences that were generally predictable based on generational differences in personality and behavior, yet our effect sizes are small. However, the average caption length was 24.66 words (range 1 to 392), meaning that on a practical level that 15% of a caption (as pronouns were) can be very meaningful to overall communication. For example, Gen Z word count was just over 11, and thus even small percentages of words in language categories could carry significant weight in what was being said. Therefore, while these differences are small, they are not unimportant, particularly in the case of

pronoun use [26]. The summary variables also showed significant differences with small effect sizes in the captions yet captured a significant amount of the language in each (ranging from 43% to 87%).

Our sample was also limited by including only women, and not including members of other generations, particularly Baby Boomers (born 1946-1964; currently in their 60s and 70s). Boomers would be predicted to show more "we" language, and perhaps more analysis, reflecting their civic orientation and care for others [34]. Boomers were not included because Instagram is not a platform widely used by this group. Marketing research (see targetinternet.com) shows that the most popular social media platform for Gen Z is Instagram, followed by TikTok and SnapChat. Millennials use Facebook, Instagram, and SnapChat; members of Gen X use Facebook and Instagram. However, Boomers do not, for the most part, use Instagram, instead relying on Facebook. Thus, using one platform to capture more than three generations of users is probably impossible.

Our findings regarding differences between women we classified as BIPOC vs. non-BIPOC suggest that further systematic research on how women of different race and ethnicity may interact differently with social media, particularly among younger Americans. Both Hispanic and Black teens report being online more than White youth [13], and there is a complex relationship between social media use and mental health symptoms among members of minority communities.

Our research further demonstrates the utility of using spontaneous, natural social behavior to show real differences among people who are of different generations, and using social media as our sample increases the external validity of our findings. Moreover, we believe using social media to study social behavior is essential, considering the relationships between high social media use and a plethora of mental health challenges, including increased loneliness [31, 35], strained interpersonal relations [41]), and alexithymia, or inability to understand, monitor, and accurately express emotion [20]. Our data highlight the different experiences of women of different generations and help provide understanding of how communication and self-presentation change and evolve in social media.

Ethics Declarations

Conflict of interest statement: The authors declare no conflicts of interest, funding, or competing interests.

Ethical Approval: While the study drew on publicly-available Instagram accounts, we maintained privacy of those whose captions were used by omitting their handles/names and by not clipping the entire post, only the text in the captions.

Informed Consent: N/A

Data availability statement: Data are available from the Inter-university Consortium for Political and Social Research [distributor]https://doi.org/10.3886/E208863V1

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