

2017

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## Recommended Citation

Carroll, Grace S., "The Anonymous Truth: Honesty and Hostility in Public and Private Online Settings" (2017). *Honors Theses*. Paper 853.

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The Anonymous Truth: Honesty and Hostility in Public and Private Online Settings

Grace S. Carroll

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### **Abstract**

Three studies were conducted to understand the relationship between honesty and hostility in public and private online settings. Study one analyzed a college's public and private online forums and examined post frequency. Related to study one, study two examined the usage of these forums, and current and past social and political issues. Study one found the public forum comprised of general announcements, while the private forum hosted random jokes/statements, negative posts targeting specific people, and personal reflections. Study two's results indicated the private forum was used more often than the public forum and race was the prevailing social and political issue across time. The third study was developed with a survey where participants had to label 30 statements about race as conservative, liberal, or unclear. Six statements emerged, three as liberal and three as conservative, and were implemented into study three. In study three, participants were told they would be partaking in a speech chat about race with another participant. The chat setting and political condition were manipulated. These results suggested participants were more agreeable in the liberal condition, more agreeable in the public condition, and more hostile in the private condition.

### **Honesty and Hostility in Public and Private Settings**

The purpose of this work was to explore the relationship of honest and hostile expressions in public or private settings. At present, research examining honesty and hostility in public and private settings online is both limited and inconsistent. This paper investigated these differences of hostile and honest expression in public and private settings online by analyzing post content on public and private online forums, and by conducting an experiment that examined participants' honesty and hostility in a public or private chat setting.

### **Public Settings and Conformity**

Early psychology research unveiled the power of conformity in public settings. In Asch's (1955) infamous line experiment, participants verbally stated answers to a matching line test alongside several confederates. These confederates all stated an incorrect answer, and, despite the answer was clearly wrong, most participants conformed and agreed with the confederates. This study showed a public setting's influence on expressivity, suggesting people conform to those around them. The ability to change in a public setting applies more to a line test; a public setting can also influence people's expression of beliefs. Scheier (1980) found when participants were told they would be sharing their views with another person, they were more likely to moderate their beliefs. These results added another component to public conformity, specifically that people may be more likely to tone down and alter their opinions in public settings. Perhaps this public conformity can be influenced by perceived normative behavior or beliefs. Peer normative contexts are the perceived normal behaviors and beliefs of people in a surrounding environment, including a college campus, neighbors, friends, and family. Dey (1997) found a relationship between students' peer normative context about politics and the change of political orientation of college students. Specifically, during college, students began to alter their political

beliefs to match their campus' perceived normative political beliefs. Therefore, public social contexts may not only influence expression, but also the beliefs itself.

### **Online Expression**

Another crucial, and new, component to students' lives is social media, which may also host a new space for these peer normative contexts. Approximately 90% of young adults report using social media (Perrin, 2015). Given social media's prevalence and format discrepancy, it is worthwhile to ask whether beliefs are expressed differently on social media than in-person interactions. Past research suggests whether someone is politically active predicted their political activity or conversation on social media (Hyun & Kim, 2015). Thus, when somebody is involved in an activity, like politics, they are more likely to post about it online. Most intriguing though was the relationship between posting political content and a concept called conflict avoidance, or the desire to reduce probable conflicts. Within this context, when somebody was low in conflict avoidance, or was unconcerned about causing conflict, he or she was more likely to state politically-related posts (Vraga, Thorson, Kligler-Vilenchik, & Gee, 2015). Thus, people who do not care to maintain a group harmony on social media are more apt to post political posts, and possibly cause conflict. This component circles back to peer normative contexts; when somebody wants to maintain the harmony, or is high in conflict avoidance, they may be more likely to avoid posting about political content that may disrupt their social media community norms. Another striking finding about posting beliefs online is the relationship between perceiving one's beliefs as a minority and willingness to speak out. Yun, Park, and Lee (2016) found those who perceived their beliefs to be in the minority, or underrepresented, were twice as likely to speak out online, compared to those who viewed themselves as in the majority. These results indicate posting online may serve as a vehicle for people who feel underrepresented to

express their beliefs online, but certain beliefs that may disrupt the perceived norms will be concealed by people wanting to avoid conflict. Therefore, online expression may be influenced by the desire, or lack of desire, in maintaining the group harmony, but may also serve as a space to share understated beliefs.

### **Honesty in Private Online Settings**

Research about online settings centralizes on public social media websites, but Yik Yak, an anonymous, peer-monitored, social media application geared at college students, adds a new perspective in social media research (Black, Mezzina, & Thompson, 2015). Established in 2013, Yik Yak is a space where individuals within a similar proximity can post brief texts, and in some cases pictures, on an anonymous forum. Black and colleagues (2015) investigated common posts across 42 American college campuses' Yik Yak pages. They found most (45.1%) of the posts were about campus life, announcements, and proclamations. Other frequent posts included profanity, rhetorical questions, and questions about dating, sex, and sexuality. Albeit the researchers encountered racist and offensive posts, they were not frequent; rather than fostering a negative culture, this study suggested that Yik Yak reflected the college campuses' perceived normative behaviors. Another study investigated how Yik Yak operates and found it served as a space where users can post about their sensitive and personal issues and/or questions (Heston & Birnholtz, 2016). With these varying data, it would be worthwhile to re-examine how Yik Yak, and privacy online, influences the ability to honestly express thoughts and opinions. Private online forums like Yik Yak could change how people interact online. Users of private social media do not have to fear about disrupting a group harmony, and this could allow people high in conflict avoidance to post beliefs not widely shared. Furthermore, it would be intriguing to compare private and public online spaces, as evidence suggests that private spaces naturally lend

themselves to more honest dialogue than public forums, where dominant discourses can silence minority views (Wyatt, Katz, & Kim, 2000).

### **Hostility in Private Settings**

Although research about private social media suggests it may foster a space for honest dialogue, the privacy may facilitate hostile behavior. Wright (2014) investigated the effects of anonymous social media on adolescents' cyber aggression, or online bullying-like behaviors (i.e., threats, insults, or hacking into accounts). The results suggested that heightened beliefs about anonymity and confidence of not getting caught predicted higher levels of cyber aggression on social media. Thus, private social networking platforms, and their implications, may encourage hostile behaviors, like cyber aggression. Furthermore, the relationship between hostile behaviors and privacy extends to in-person interactions. Ellison, Govern, Petri, and Figler (1995) examined honking behaviors of people in covered and uncovered cars. They found those in covered cars, who were slightly more concealed, honked more often, for longer, and quicker than those in uncovered cars. Therefore, whether online or in-person, privacy may allow for more hostile behaviors.

### **Present Research**

Past research suggests public and private settings influence people's honest and hostile expression, but given the rise of social media and online forums, it is worthwhile to explore whether this pattern is consistent online. Three studies were conducted to analyze honest and hostile expressions in online public and private forums. Study one focused on archived data from a college campus' private and public online forums. Following this study, experiment two was conducted to evaluate the prevalence and frequency students used the examined private and public forums, as well as examining students' past and current social and political concerns.

With the information gained from these two studies, a final experiment that evaluated honest and hostile expression in a public and private online discussion was developed and conducted.

For the first study, I predicted more honest and hostile posts on the private forum than the public forum. This is expected because users can post any text content on the private forum, and no name is associated with it. This would also support the patterns found with anonymity and cyber aggressive behaviors (Wright, 2014), as well as the past research that found Yik Yak served as a space where users discuss personal issues (Black, et al., 2015; Heston & Birnholtz, 2016). As for the second experiment, I hypothesized that the private forum was more commonly and frequently used among students than the public forum. The private forum measured was a social media application, and is likely more entertaining and intriguing for students than the analyzed public forum, a daily email. No specific hypotheses were developed for students' past and current social and political concerns. For the final experiment, I expected participants in the private setting to report being more honest, but also feel more hostile feelings towards their chatting partner, in comparison to the public condition.

### **Study 1 Method: Coding of Anonymous and Public Forums**

#### **Materials and Procedure**

To investigate how private and public social media affects political expression and hostility, all archived data were collected by a researcher who had access to private (Yik Yak posts) and public (college civil discourses) forums of a college. Both forums have the intentions of being spaces for discussing any topic that is not business-related (i.e., not about academic schedules or ride boards) and data were collected simultaneously, beginning in the spring semester of the 2015- 2016 academic year and continuing into the fall semester of the 2016-2017 academic year. The public forums were sent in their original format to the researcher's email

who saved them. In these emails, the date, time, poster, and content were present. Private forum data was collected through making an account online, copying, and saving the posts from the college's location every day. Only the date, content of posts, and any comments for it were recorded.

Private forums were Yik Yak posts in a college's location and public forums were this same college's civil digest emails. These civil digests were daily emails sent to a local college's student body, faculty, and staff. Individuals at this college can go to the college's website to submit a topic in this digest and choose which date for it to be sent out. When a post is submitted, the individual's name and college email are posted alongside the content. It is tradition to post written content only, and no pictures appear on posts.

As for the Yik Yak posts, this is a recently developed anonymous, location-based social network that provides an anonymous space to post anything. Posts are monitored by other participating users, who can up- and/or down-vote posts. If a post receives more than five down-votes, it is automatically removed, however an up-vote can remove a down-vote. In other words, if a post is down-voted three times, and another user up-votes it, it will then have two down-votes. Moreover, all posts have no name connected to them. Posts are short texts, restricted to 200 characters, or images. Any posted images are scanned by the application company, and according to their website they do not accept pictures of faces, anything relevant to bullying, nudity, or illegal activity. All data analyzed were posts before the Yik Yak update, which required its users to create profiles and nicknames.

### **Scheme Development**

Due to these public and private forums being representative of the local culture and encompassing location specific themes, two specific coding schemes were developed for the

forums. The process of developing schemes follows that of a previous study that created a Yik Yak scheme (Black, Mezzina, & Thompson, 2015). Specifically, the experimenter read each post in the private and public forums and defined its content with a couple of overarching terms. For example, a post in the private forum “I lost her” would be considered a personal reflection/thought, or a post in the public forum “Join fellow students (and two or three friendly professors) for pizza and conversation...” would be considered an event announcement, professor involvement, and dialogue. These overarching terms were categorized and simplified into 40 categories. Although the forums had 40 categories each, there were several categories that overlapped. Following scheme development, the experimenter used these 40 categories to label each post in the public and private forums. To avoid confirmation biases, two blind coders also labeled the posts and inter-rater reliabilities were examined.

### **Study 2 Method: Forum Usage and Social and Political Issues**

#### **Participants**

Participants were 37 college students (28 females;  $M$  age = 19.6,  $SD$  = .88; 28 white). Participants were recruited by posting the study link on an experiment testing website and word of mouth. Their participation lasted approximately 15 minutes and they could have been compensated with course credit.

#### **Materials and Procedure**

The experimenter posted the study’s link and a brief explanation that the study was examining the college’s past and present discourse usage on an experiment testing website. The study was only available for students who reported they were on campus for the 2015-2016 academic year. This exclusion was done because data from the private and public forums originated from this time frame. Upon opening this link, participants provided their consent,

were informed all responses were anonymous, read instructions for how to answer questions, and began the study.

Participants answered questions about current (2016 fall semester) and past (2016 spring semester) usage of the studied private and public forums. Specific questions regarding the private forum included whether Yik Yak was installed on their phone last year and currently, how often they checked Yik Yak last year and currently, and how often they posted on Yik Yak last year and currently. Specific questions regarding the public forum included how often they read the civil discourse emails last year and currently, and how often they posted in the civil discourse emails last year and currently. There were four short answer response questions about current and past social and political issues. At the end, participants answered standard demographic questions, including age, gender, and race, were directed to a debriefing statement, and received course credit.

## **Study 1 and 2 Results**

### **Study 1**

Only forum posts from the spring 2016 semester were analyzed. This was done because experiment two revealed low reported usage of the private forum during the 2016 fall semester and indicated this forum was no longer a representative space used by many students.

Additionally, it was important to have similar date ranges and ongoing influencers (i.e., major world news or campus events), so only posts from the 2016 spring semester were used for analyzing the public forum.

Post frequencies were computed for both public and private forums. There were 778 posts for the private forum and 71 posts for the public forum. All code categories, examples, and their frequencies are in Table 1 and Table 2. The three most prevalent categories were examined.

In the public forum, the most common category posts were event announcements (21.05%), inclusion (10.53%), and bettering the college community (8.42%) (see Figure 1). The most common categories in private forum were random jokes/statements (10.25%), posts negatively targeting specific people (8.98%), and personal reflections/thoughts (7.32%) (see Figure 2). Two blind coders also coded the public and private forums. The inter-rater reliability for the public forum was 77% and was 93% for the private forum. It is worthwhile to note the public forum is more centralized around a few categories, while the private forum is more dispersed across categories. Despite these variances in distribution, posts on the public forum suggested it served as a space for general announcements, while the private forum hosted more hostile, but also honest, responses.

## **Study 2**

Participants' private and public forum usage was analyzed by computing frequencies. The data revealed that 60% of participants reported using Yik Yak, the private forum, in the spring of 2016. This declined to 4% of Yik Yak usage in the fall of 2016. All participants received civil discourse emails, or the public forum, but only 7.6% of participants reported posting on the forum during the spring of 2016. During the spring of 2016, participants who used Yik Yak reported viewing it more than civil discourse emails, with 70% of participants stating they looked at it at least a couple times a week. On the other hand, only 46.1% of participants reported looking at civil discourse emails at least a couple times a week. These results indicated the public and private forums functioned differently. The private social media forum, Yik Yak, was used more frequently than the public forum, civil discourse emails. Most importantly, these results suggested that Yik Yak usage on the studied college campus declined sharply in the 2016 fall semester.

Participants' responses for current and past political and social issues were variable, however race was the most prevalent response across all answers. For current political issues, race was listed 37.84% of the time and for current social issues race was included by 54.05% of participants. As for past (the spring 2016 semester) political and social issues, race was listed 23.30% and 43.33% of the time, respectively. Responses about race included listing racial tensions, Black Lives Matter, racial discrimination, and diversity issues. This indicated that across time, race was the prevailing issue and that social and political issues are intertwined for college-aged students.

### **Study 3 Development Method**

#### **Participants**

Participants were 60 college students (44 females; 31 white). Participants were recruited by posting the study link on a research participation website and word of mouth. Their participation lasted approximately 15 minutes and they could have been compensated with course credit.

#### **Materials and Procedure**

The experimenter provided the study's link on an experiment testing website and distributed it on social media. Along with this link, there was a short text explaining the purpose of the study was to define statements about race. Upon opening the link, participants provided their consent, were informed all responses were anonymous, read instructions for how to answer the questions, and began the study.

Participants were presented with 30, randomly organized, statements that broadly talked about race. Ten were intended to describe a conservative (or a Republican's) perspective, ten were intended to encompass a liberal (or a Democrat's) perspective, and ten were intended to be

an ambiguous perspective (see Table 3 for all statements and pre-defined categories).

Participants had to label each statement as conservative, liberal, or ambiguous/unclear. After categorizing these 30 statements, participants answered demographic questions, including class year, political orientation, race, and gender. Following the demographic questions, participants were directed to a debriefing statement and could receive course credit.

### **Results**

To determine which statements about race to use as stimuli for experiment three, each statement's political categorization frequency was computed. Across the 30 statements about race, six emerged as having almost consistent agreement among participants. Three of these were most commonly listed as being a conservative perspective: "Conversations about race distract people from real issues", "Race is not an important topic to discuss", and "People think about race too much". In respective order, 82.8%, 84.4%, and 82.8% of participants categorized these as conservative. As for the other three statements, they were most often categorized as a liberal perspective: "It is important to call out racial microaggressions", "We need to change how white privilege affects our society", and "Race is a pressing issue that needs to be addressed". Respectively, 89.1%, 89.1%, and 85.9% participants categorized these statements as liberal. Ten statements were developed to create an ambiguous, or unclear perspective. However, out of these ten items, the highest total frequency of categorizing a statement as ambiguous/unclear was 51.6%. This indicated participants did not frequently agree on statements being ambiguous and, because of this, an ambiguous perspective was not used as a political condition for experiment three. However, the six statements, three conservative and three liberal, are consistently labeled across participants and were used in experiment three.

### **Study 3 Method: Honesty and Hostility in a Public and Private Online Discussion**

**Participants**

Participants were 80 students (58 females;  $M$  age = 20,  $SD$  = 1.40; 60 white; 46 Democratic) Participants were recruited by word of mouth and posting the study on a research participation website. Their participation lasted approximately 20 minutes and they could have received course credit.

**Procedure**

Participants signed up for a time and took the study in a lab setting. Upon arriving to the lab, the experimenter deceived each participant to believe the experiment's purpose was to investigate differences between online and in-person discussions, and that the participant would be partaking in an online speed discussion about race with another participant. Half of the participants were randomly assigned to be in the public condition. They were told their chatting partner's name was Ricki, intended to be a gender-neutral name, and that the participant's name would also be shown to "Ricki" on the online chat forum. The other half of participants were randomly assigned the private condition. They were told the speed discussion was private – the participant would not know their chatting partner's identity, and the chatting partner did not know the participant's identity. For both conditions, this information was bogus, as participants would be talking with a trained confederate who did not know the participant's identity, no matter the condition.

The speed discussion was set up using a secure online chat server, OfficeChat. The speed component for the discussion was that the confederate and participant could only send three messages each. This chat restriction was done to allow for better consistency across participants and conditions; having a shorter chat made it easier for participants to be exposed to roughly the same content. Race was chosen as the topic for discussion because according to study two, race

was the most commonly cited topic for both past and present political and social issues. This made race a versatile topic category, as race would likely remain a relevant topic participants had opinions on.

After receiving instructions about the experiment and being told that either the chat was public or private, participants read a consent form and agreed to participate. After agreeing to consent, the experimenter directed participants to the chat box. The experimenter explained that a coin was flipped to decide who began the conversation, but the confederate, “Ricki” or an unidentifiable person to participants, would always begin the conversation. The confederate randomly listed one of six pre-decided statements from the study three development. After sending this statement, participants could respond in any way. The confederate was trained to not elaborate on the statement he or she stated first, but to ask questions about the participant’s perspective and reaction (see Figures 3 and 4 for example chats). After the participant sent three messages, he or she was directed to fill out a survey, which measured participants’ honest expression, feelings of hostility, likeability, and agreeability. Participants also completed a demographics inventory, including questions about age, political orientation, race, and gender, and described what he or she believed the experiment was about. At the completion of the survey participants read a debriefing statement and the experimenter explained the study’s purpose, clarified deception, ensured all participants’ responses, in the chat forum and survey, were anonymous, and asked participants to not discuss the experiment to allow future participants to be deceived.

### Measures

**Honesty.** Three questions were asked to evaluate participants’ honest expression. The questions included: “My responses in this speed discussion are a reflection of my true beliefs”, “I was

honest in my responses to my chatting partner”, and “It was easy for me to be honest with my chatting partner”. All responses were on a 5-point Likert scale (one – disagree strongly and five – agree strongly). The three questions were reliable measures of honest expression, with a Cronbach  $\alpha$  coefficient of .743 in this sample.

**Hostility.** There were four questions to measure participants’ feelings of hostility. The questions included: “I felt my responses to my chatting partner may have been hostile”, “I felt negative feelings towards my partner”, “I felt hostility towards my chatting partner”, and “I liked my chatting partner”. All responses were on a 5-point Likert scale (one – disagree strongly and five – agree strongly), and the first three listed questions were reversed coded in analyses. These questions were reliable measures of participants’ hostile feelings, with the four questions having a Cronbach  $\alpha$  coefficient of .723 in this sample.

**Likeability.** Three questions analyzed participants’ degree of likeability, including “I enjoyed partaking in this speed chat”, “I wanted to chat longer with this person”, and “I wanted this conversation to end quickly”. All responses were on a 5-point Likert scale (one – disagree strongly and five – agree strongly). Likeability was analyzed to ensure the measured hostility differed from disliking the chat and chat partner. These questions were a reliable measure, with a Cronbach  $\alpha$  coefficient of .739 in this sample.

**Agreeability.** Four questions were asked to examine participants’ agreeability to the chat partner: “I felt I could relate to my chatting partner”, “I agreed with my chatting partner”, “My beliefs on race are similar to those of my chatting partner”, and “I understood my chatting partner’s perspective”. All responses were on a 5-point Likert scale (one – disagree strongly and five – agree strongly). Agreeability was examined to ensure the hostile measure was not dictated

by sheer disagreement, but rather represented participants' hostile, aggressive feelings. These questions were a reliable measure, with a Cronbach  $\alpha$  coefficient of .760 in this sample.

### Results

Four two-way between groups analysis of variances were conducted, all using the chat setting (public or private) and political condition (conservative or liberal) as between-subjects factors, and the dependent variables as the four analyzed factors: Likeability, agreeability, honesty, and hostility.

No significant interaction between chat setting and political condition for likeability was found,  $F(1, 76) = .057, p = .812$ . Moreover, there were no significant main effects for likeability in chat setting,  $F(1, 76) = .115, p = .736$ , and political condition  $F(1, 76) = .684, p = .411$ . These results suggested the chat setting and political condition did not influence participants' likeability towards their chatting partner.

There was also no significant interaction between chat setting and political condition for agreeability,  $F(1, 76) = .092, p = .762$ . However, main effects emerged for agreeability in both chat setting,  $F(1, 76) = 8.36, p = .005$ , and for political condition,  $F(1, 76) = 5.51, p = .022$ . The main effect in agreeability for political condition showed more agreeability in the liberal political condition ( $M = 2.78, SD = .71$ ) than the conservative political condition ( $M = 2.30, SD = .83$ ). This effect may be explained by the sample, which was predominately liberal (57.5% participants self-reported as Democratic). However, the main effect for chat setting suggested that participants were more agreeable when in a public setting ( $M = 2.83, SD = .80$ ) than the private setting ( $M = 2.27, SD = .72$ ), providing implications for differences in public and private online forums.

No statistically significant interaction was revealed for honesty with chat setting and political condition,  $F(1, 76) = .418, p = .520$ . Moreover, there were no main effects for honesty with chat setting,  $F(1, 76) = 1.25, p = .267$ , as well as political condition,  $F(1, 76) = .868, p = .355$ . These findings indicated the chat setting and political condition did not significantly affect participants' honesty.

Lastly, there was no significant interaction with hostility for chat setting and political condition,  $F(1, 76) = .073, p = .788$ . There was also no statistically significant main effect with hostility for political condition,  $F(1, 76) = 1.12, p = .292$ , but there was a significant main effect with hostility for chat setting,  $F(1, 76) = 4.58, p = .036$ . This difference showed participants reported higher levels of hostility when in the private condition ( $M = 3.09, SD = .75$ ), than in the public condition ( $M = 3.52, SD = .86$ ) (hostile responses were reverse coded, with lower numbers indicating higher hostile scores). These results suggested the privacy of the forum may have increased participants' feelings of hostility.

### **Discussion**

The discussed studies strived to investigate the influence of being in a public and private setting on honest and hostile expression. In study one, private and public forums were coded, and these data suggested the public forum served as a general announcement space, but the private forum was filled with random jokes/statements, posts negatively targeting people, and personal reflections. Study two evaluated the usage of these public and private forums, as well as current and past social and political issues. This revealed usage for the private forum was more prominent during the spring 2016 semester than the fall 2016 semester, and was viewed more often than the public forum. As for current and past social and political issues, race was the most commonly listed topic. With insight about how posts in online private forums may be more

honest, but also hostile, and race serving as a versatile issue for current college students, study three was developed. First, statements used for the experiment were produced, and six statements about race, three categorized as liberal and three as conservative, emerged. There was no consistent categorization of an ambiguous category, so experiment three did not include ambiguity as a political condition. Study three manipulated chat setting, public or private, and political condition, liberal or conservative, and measured their effects on likeability, agreeability, honesty and hostility. These results suggested participants in the liberal condition reported being more agreeable, which can be explained by the liberal-dominant sample. More intriguing was that participants reported being significantly more agreeable in the public condition. There were also significant differences in participants' feelings of hostility and chat setting, with participants in the private condition reporting higher levels of hostility.

I was correct in predicting that there would be more honest and hostile posts on the private forum than the public forum. This data supported past research that indicated private settings, especially online, served as a platform to express personal, honest thoughts, but also hostile ones (Wright, 2014; Black, et al., 2015; Heston & Birnholtz, 2016). I was also correct in predicting this private forum was used more often than the public forum. Intriguingly, race emerged as the most common social and political issue, both in the past and present. This indicated political and social issues may be intertwined, and race is a prevailing topic of interest for 18 to 22 year olds. For the final experiment, I correctly expected a relationship between chat setting and hostility, with higher levels of hostile feelings in the private condition. Unexpectedly, there were higher levels of agreement in the public setting. Contrary to my predictions, there was no relationship between political condition and chat setting for honest expression.

These studies' results supported past research about private online settings and their relationship with increasing hostile expression. However, what is the origin of this online private hostility? Rösner, Winter, and Krämer (2016) found exposure to hostile comments increased readers' feelings of hostility. Therefore, hostile statements online may be a self-feeding process, and people may mimic how other users are expressing themselves. This could justify the higher number of hostile posts in the analyzed private forum from study one, but unlikely explains the results in experiment three. Participants were not exposed to a hostile post, and even if the statement about race was perceived as hostile to participants, no relationship was found between political condition and hostility. Thus, there may be another explanation for the origin of this hostility in private, and future research should explore if it is the privacy itself that induces hostile feelings or if there are other underlying variables in play.

Although hostility may be perceived as a negative, Matthes (2013) found people's trust in the forum they were partaking in, and not the degree of hostility, influenced their political expression. These results suggested hostility, even if prevalent across a forum, did not influence people's expression of their beliefs. Rather, the degree of trust towards other online users impacted how much people express. Perhaps people feel more trust when in a private setting, and how much they express may be unaffected by surrounding hostile posts, likely prevalent in an online private forum. Therefore, hostility may be contagious online, but may not be responsible for influencing what people express. Online trust could be another realm for investigating how much people express online.

In addition to finding support for the relationship between people's feelings of hostility and being in private, study three revealed a relationship between being in public and being more agreeable. Although the agreeable measure was intended to ensure feelings of hostility differed

from disagreeing, there may be a possible relationship between agreeability and being in public. Perhaps believing one's identity is revealed encourages people to be more receptive to their chatting partner and consider their opinions more. Furthermore, this could relate to past research about public conformity, where being in public makes people more likely to conform to those around them (Asch, 1955). Seeing this possible pattern of public conformity, but online, would be striking. Given the prevalence of news online, as well as dominant usage across young adults (Perrin, 2015), examining whether there is an agreeability effect in online public spaces would be worthwhile.

Despite finding support for more hostile expression on private online settings and a possible relationship between being in public and being more agreeable, it is important to address the study's limitations. First, the study was conducted on a small college campus with most students self-identifying as liberal/Democratic. This limits the study's applicability to other individuals, specifically people self-identifying as conservative/Republican and people of differing age groups. Additionally, experiment three was conducted in a lab setting. Albeit this allows for more control, many participants believed they were talking to a "robot". Thus, the chat may have not replicated being publically and privately online and felt superficial to participants. The lab setting could also explain the lack of a relationship between chat setting and honest expression. The forum may have felt superficial and being in a lab setting may have made people feel uncomfortable expressing their beliefs. Fortunately, there is natural data from study one, so results from both can be looked in conjunction and each offer possible insight about the influences of public and private online forums on honest expression and hostile feelings.

Overall, this research examined the relationship between honest and hostility on public and private online forums. Study one revealed the most prevalent posts on a private forum

included posts negatively targeting specific people and personal reflections, both capturing an honest and hostile picture. Study two provided insight into forum usage, and indicated the private forum was used more often than the public forum. Moreover, it suggested race was a prevalent social and political issue across time. For study three's development, six statements about race were created. These statements were included in study three, which revealed participants were more agreeable in the public chat setting, the liberal political condition, but more hostile in the private chat setting.

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## Tables and Figures

Table 1  
*Frequencies and examples of private forum codes*

Code	Frequency N (%)	Example
Announcement	59 (5.76%)	Is Dana really closed right now?
Politics	8 (.78%)	You sound like Trump talking to himself in the mirror every morning
Comparing to other schools	39 (3.81%)	That young acceptance rate ☹️
Personal reflection/thought	75 (7.32%)	You matter you are worthy you are loved
Questioning other opinions	17 (1.66%)	You know it's wrong when it's the same thing trump supporters are doing. "they lit fires and threw bottles at police"
Sex and masturbation	44 (4.29%)	We made furtive eye contact along the course of a few hours, you tryna bang?
Activism	1 (.09%)	Colby Pride.. Not just this week but every day ❤️👏👏👏
Food	33 (3.22%)	How can I make Raman without a bowl
Race	6 (.58%)	Still not sure how this drunken brawl was racially motivated...?
Sexism	14 (1.34%)	No girls are robots
Be a mule/college morale	10 (.97%)	Good showing today seniors, dam proud to be a mule
Privilege	9 (.87%)	What's happening is that our privilege is being pointed out. That makes some people uncomfortable, but we need to accept that we are not the victims here
Campus facilities	34 (3.32%)	What exactly is so hard about turning off the shower/bathroom lights when you're done
Sports team	13 (1.27%)	Men's lacrosse need haircuts
Dorm damage	2 (.19%)	To the 5-6 guys that just giggled like school girls while smashing a glass outside AMS: ***** you
Underground frats	13 (1.27%)	Nothing says "I'm insecure and uncomfortable" better than hanging out with your buddies from high school and pretending you're in a "frat"
Sexual assault	9 (.87%)	A kid getting kicked out for violating sexual conduct and an arrest, men's hockey team will be walking on eggshells next year
Random joke/statement	105 (10.25%)	I found a bunny

Social media	23 (2.25%)	Reading period is the best time to yak since everyone is procrastinating and desperate to up vote anything remotely funny
Appreciation	42 (4.10%)	I love you Colby, thanks for giving me a home
Questions/seeking advice	49 (4.78%)	What do people do after the concert is over
Civil discourse	21 (2.05%)	Write these things on the civil discourse. Put your name on them.
Finances	4 (.39%)	I wish I could express how financially difficult apartments dorm damage is without being told I chose to live there
Academics	56 (5.47%)	What the *magnetic* flux is going on in PH145?
Gender norm	1 (.09%)	Dear conservatives: if gun laws won't stop criminals from getting guns, what makes you think bathroom laws will prevent people from going into bathrooms?
Isolation	0 (0%)	
Student behavior	10 (.97%)	Colby crush: the girl I made brief eye contact with on the stairway in Miller.
Drugs	30 (2.29%)	Anyone want to buy the rest of my stash
Room draw	12 (1.17%)	Friendly reminder to submit your finalized room pick by 5:00 pm so your room doesn't end up on the wait list
Campus event/tradition	33 (3.22%)	When midnight munchies ends 30 minutes before midnight
Mental health	13 (1.27%)	100% chance of me having a panic attack today.
Agenda pushing	2 (.19%)	Forget about the frats. Abolish the hockey team
Deliberately offending people	29 (2.83%)	Eat ***** frat boys
Negatively targeting specific people	92 (8.98%)	Frat boys and lax bros fucking SUCK
Student punishment	1 (.09%)	So were two kids ever actually arrested/summonsed for arson or was that just Waterville pd trying to look tough?
False accusations	11 (1.07%)	Both the FBI and the department of justice place the rate of false accusations for rape at 8-10%
Parties	37 (3.60%)	Grossman was bopping
Drinking culture	23 (2.25%)	I'm not "not drunk" in class today
Weather	16 (1.56%)	Senior spring... More like senior winter with this weather
Pop culture	28 (2.73%)	Time to defend the wall again #freebrady

Table 2  
*Frequencies and examples of public forum codes*

Code	Frequency N (%)	Example
Academics	3 (3.16%)	Are you interested in the history of fear from antiquity to 1900?
Professor involvement	6 (6.32%)	Join fellow students (and two or three friendly professors) for pizza and conversation in Miller 220 (5:30-6:45 p.m.) on alternating Wednesday evenings
Bettering community	8 (8.42%)	I'm sad, outraged and disappointed at what too often happens on this campus: violent acts of racism, classism, homophobia and more. As a community, we all must be better than that.
Art	0 (0%)	
Music	0 (0%)	
Politics	0 (0%)	
Activism	5 (5.26%)	This Wednesday, hmu in the spa, 9am-4pm, for a little bit of info and a lotta bit of material goods to help you subvert the male gaze. (including but not limited to: make-up, make-up remover, shades, nail polish, nail polish remover, razors, mustaches, iron-on t-shirts, axilla hair dying station, etc)
Environmental justice	4 (4.21%)	On Monday April 18th the Eco Reps weighed post consumer food waste in Foss at dinner! The total waste was 32 pounds!
Lost/found	1 (1.05%)	A gold ring was found this week in Miller 319.
Stolen items	1 (1.05%)	It's really disheartening to me that there are so many goddamn shampoo thieves on this campus.
Items for sale/for rent	0 (0%)	
Asking for services	0 (0%)	
Club involvement	5 (5.26%)	The purpose of the Colby Drone Club is to create an educational opportunity for students to venture into the world of engineering.
Personal beliefs	1 (1.05%)	I'm writing to express my profound disappointment with the spring issue of the Pequod.
Discourse/debate	6 (6.32%)	We want this to inspire deeper conversations about experiences on Colby's campus and in turn help change our culture.
Speakers	4 (4.21%)	Please join us for the Women in Leadership Trustee Panel on Friday, April 15 at 3:30 p.m. in Ostrove Auditorium.

Event announcements	20 (21.05%)	Are you a member of a Pugh Center club or organization and are a graduating senior? Please join us for the Annual Pugh Center Senior Recognition and End of the Year Program
Inclusion	10 (10.53%)	Miller Commons get-togethers are open to all years and majors, and are meant to be a welcoming occasion to take a break, have a snack, and chat with friends and professors in a low-key environment.
Religion	2 (2.1%)	Catholic Mass will take place at 5:00 pm in Lorimer Chapel this Sunday 4/17 to accommodate the welcome for admitted students.
Class projects/studies	0 (0%)	
Job openings	0 (0%)	
Campus announcements	0 (0%)	
Feminism	5 (5.26%)	What is hypermasculinity? How have you witnessed or experienced hypermasculinity at Colby?
Trans rights	0 (0%)	
Study break/help	2 (2.1%)	We invite you to drop the books and take a break and enjoy a treat. Join us in Pulver on Thursday, May 12 from 3-5 pm
Criticism	3 (3.16%)	I'm concerned that the editors of the magazine, in an effort to shape the magazine's image into a certain style, selected only the pieces which suited their personal artistic tastes.
Assaults	1 (1.05%)	During the early hours of Sunday March 6th, 2016, myself, and two female students were assaulted on a frat bus.
Privilege	0 (0%)	
Race	1 (1.05%)	Instead, they wanted to know why the black kid was screaming so loud.
Appreciation	0 (0%)	
Porn	1 (1.05%)	Do you enjoy lesbian porn?
Sexism	1 (1.05%)	Sexism in video games,
Colby traditions	1 (1.05%)	Like many of my fellow seniors who are preparing to graduate in few short weeks I was excited to celebrate with a bottle of champagne on the steps.
Dorm damage	1 (1.05%)	To the person who jumped on and broke the table: I realize you probably regretted this decision immediately after.
Campus events	0 (0%)	

Hypermasculinity	2 (2.1%)	Are there some spaces on campus where hypermasculinity and/or homophobia is more present? What can we do to push back against these?
Diversity	1 (1.05%)	Please join us to share your ideas and concerns, and to listen and to learn about how we can make diversity more meaningful in our lived experiences now and in the vision of inclusive community to which we aspire in the next decade and beyond.
Mental health	0 (0%)	
Underground frats	0 (0%)	

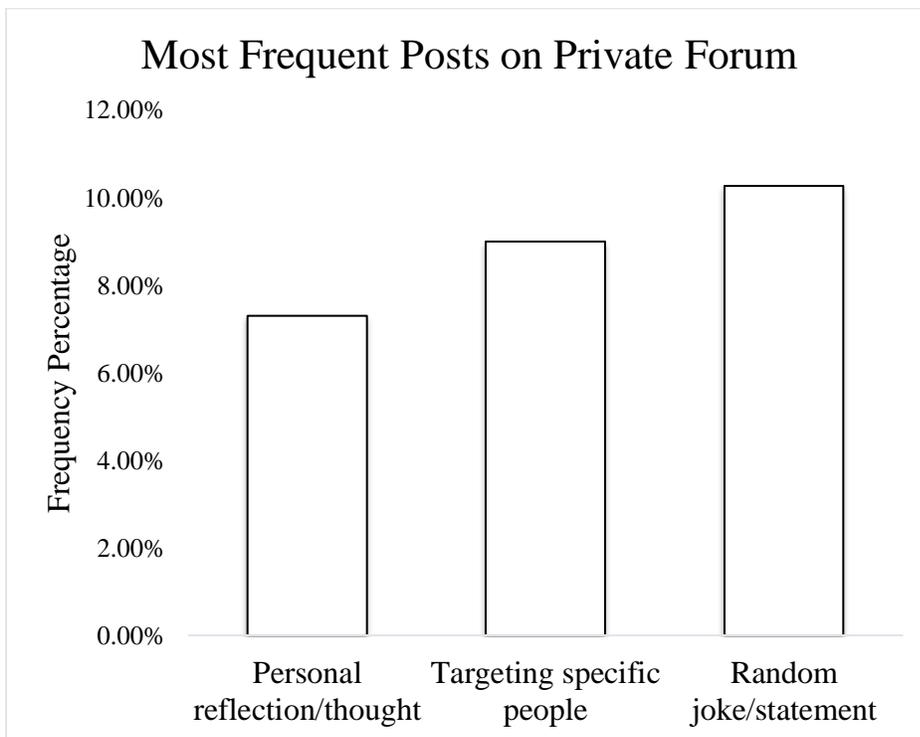


Figure 1. Three most frequent category of posts on the private forum, the social media application Yik Yak.

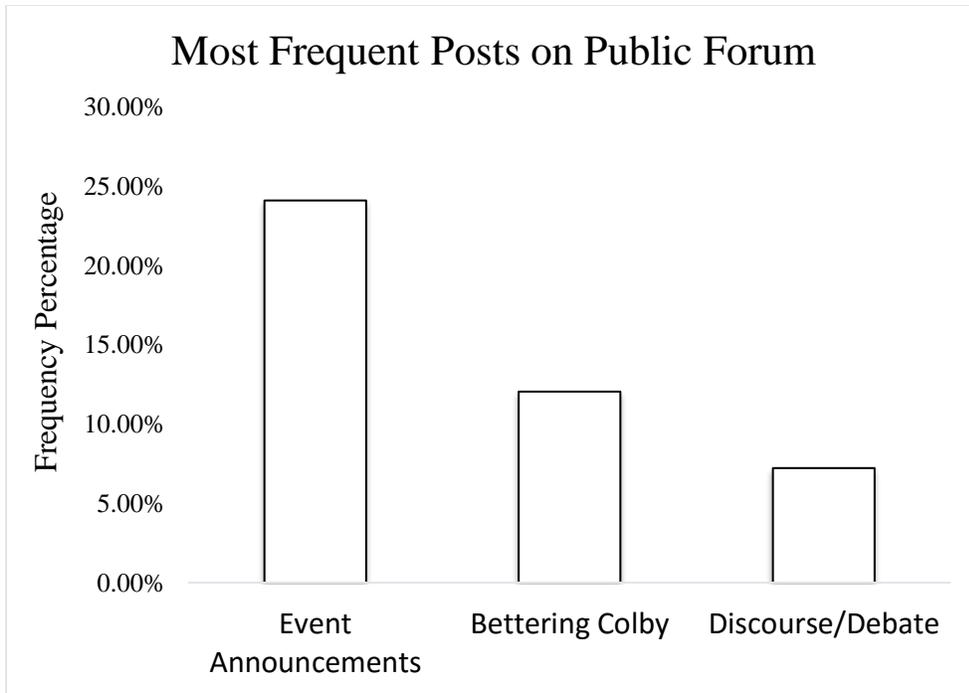


Figure 2. Three most frequent category of posts on the public forum, civil digest emails.

Table 3  
*Pre-defined statements about race for experiment three development*

Ambiguous	Conservative	Liberal
You cannot change your race	Some people reap benefits because of their race	Whiteness is the root of many problems in this country
Race seems to have many definitions	We live in a post-racial time	It is important to call out racial microaggressions
People know about their race at a young age	Somebody should not get advantages just because of their race	Opportunities in the United States are not on an equal playing field because of race
Race matters to many people	Conversations about race distract people from real issues	People of color cannot be racist
There may be many different concepts of race	Race is just a skin color	One's race can influence how they operate in the world
Many people have mixed feelings about what race they identify with	It is not effective to blame racial incidents on "whiteness"	We need to change how white privilege affects our society
Race is an interesting topic to talk about	Race is not an important topic to discuss. There are more pressing issues	Race is a pressing issue that needs to be addressed
There are many races in our world	People think about race too much	People of all races need to take immediate action on ongoing racism
People around the world view race differently	Race isn't that important for how a person operates in the world	It's healthy to talk about race
Race is part of somebody's identity	It's ok to date only people of your own race	Race is a constant unequalizer

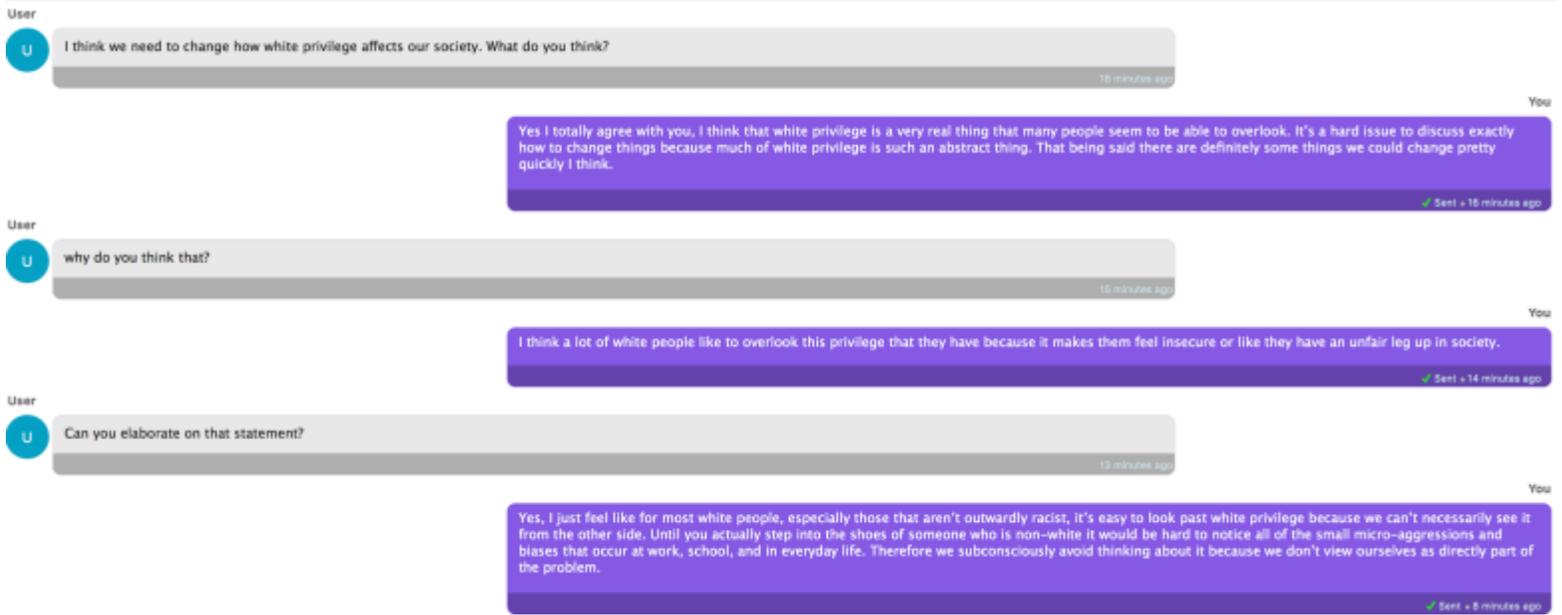


Figure 3. Example of a private setting, liberal political condition, chat in experiment three.

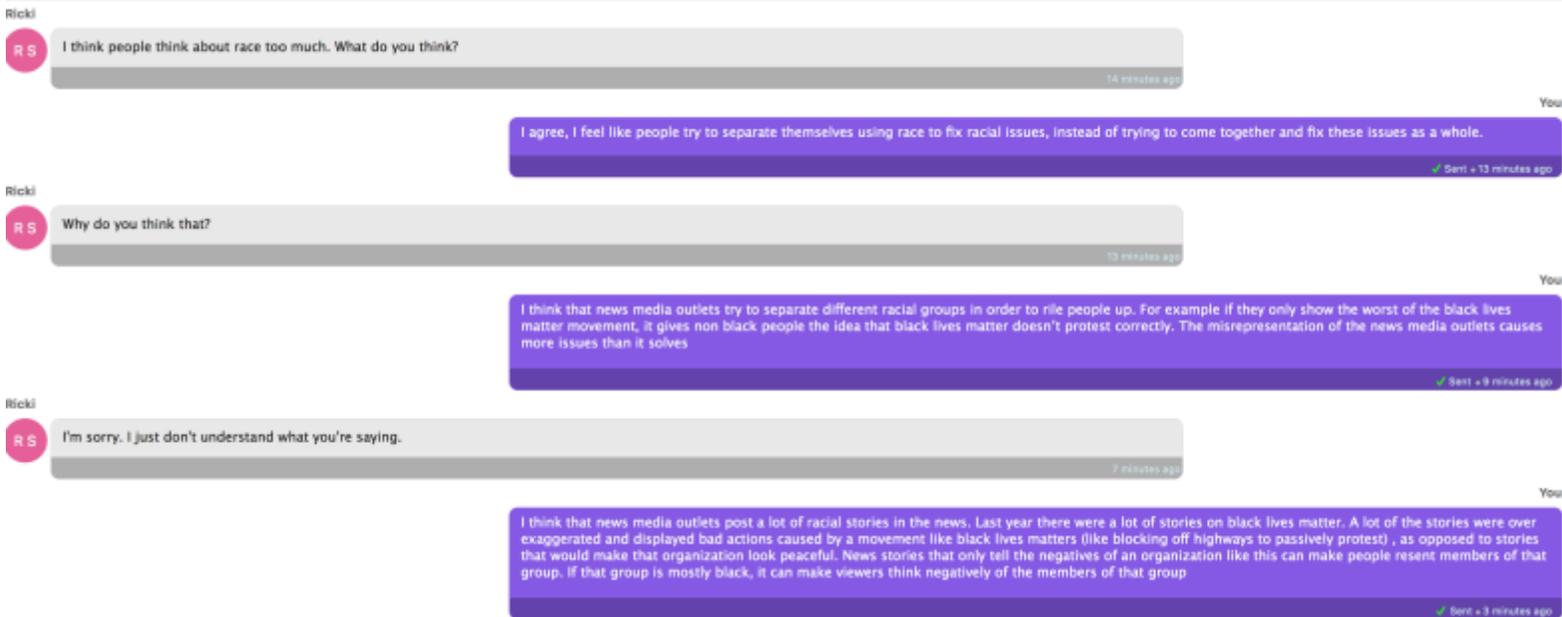


Figure 4. Example of public setting, conservative political condition, chat in experiment three.