Previous work in variationist sociolinguistics has shown that high school is a rich environment for the construction of social and linguistic styles (e.g., Bucholtz 2011; Eckert 1989; Drager 2015; Wagner 2007). However, little work has directly compared the speech of students who attend different kinds of high schools (e.g., public school versus private school), except in cases where that difference was taken an index of socioeconomic status (e.g., Lawson, Scobbie, and Stuart-Smith 2011; Carmichael 2014). Might there be meaningful stylistic differences between schooling types that index meanings other than social class? We know that students within a single high school typically participate in different Communities of Practice, and that these often correlate with different linguistic styles (e.g., Eckert 2000; Drager 2015). We have also seen linguistic differences between high school Communities of Practice persevere into college (Wagner 2014), and we have seen linguistic differences between types of high schooling which persevere into later life, at least within a single geographical region (e.g., Moore and Carter 2015; Dickson and Hall-Lew 2017). But are linguistic differences reflected more broadly among students from different kinds of schools, even across regions? In other words, is there something particular to the social landscape of one kind of high school that results in stylistic differences between that type and another type? Our work seeks to address this question by taking a regionally diverse speaker sample of roughly similar socioeconomic standing and considering how the type of high school one attends might correlate with the use of linguistic innovations. In particular, we ask whether college students’ high school background influences their use of quotative verbs.

There are several reasons for thinking that high school type might affect linguistic style. The practice of taking school type to be an indicator of socioeconomic status is an informative starting point. Parent income and student ability are, at least in some contexts, significantly higher for private school students than for public school students (Epple, Figlio, and Romano 2004), such that there are some contexts in which attending a private school is taken as a direct indicator of wealth. Decades of work have shown a relationship between socioeconomic status and linguistic style, in terms of both classic (Labov 1966; Trudgill 1972; Macaulay 2001) and agentive notions of style (Eckert 2000; Coupland 2007; Becker 2014), and in terms of a range of representations of socioeconomic status. Given that the broader character of a school or a school type might be shaped by the socioeconomic status it is associated with, there is reason to hypothesize that acts of stylization (e.g., Coupland 2007) may be constrained in different ways across schools or school types. This might be visible in, and perhaps even attained by, differences in language use, both qualitative and quantitative.

But beyond associations with class, another reason to explore the influence of high school type on linguistic innovation is that students who are socialized in unconventional high schools, such as different types of homeschools, may find themselves in a markedly different linguistic environment during the school day than their more conventionally educated peers, and there’s every reason to think that this might have stylistic effects, as well. In a survey of homeschoolers and public schoolers ages 12-18, Chatham-Carpenter found that “the home schoolers reported more older [contacts] than peer contacts, demonstrating that the home schooling process does have the potential to restructure a child's social world, in providing the home schooler more mixed-age than same-age interaction and socialization opportunities” (1994, 19). A few studies
also indicate that some homeschooled students feel disconnected from fashion trends and are less influenced by their peers than traditionally schooled students (see Medlin 2000). If homeschoolers find themselves cut off from fashion trends, for example, then it is conceivable that they might also be relatively isolated from the linguistic styles that characterize their generation.

Despite the careful attention that sociolinguists have given to adolescence and the high school experience, little is known about the way sociolinguistic variables are acquired and evaluated by young people who have unconventional high school experiences (but see Starr et al. 2017). We know of no previous variationist analysis specifically comparing the speech of homeschooled students with students with more traditional schooling backgrounds, but there are a number of reasons why we might expect homeschooled students to be sociolinguistically interesting. If homeschooled students take their parents as their primary models for linguistic choices, then they should exhibit a more conservative linguistic system than their peers from public and private schools. However, homeschoolers’ experiences encompass much richer social networks than just their parents and siblings, and the nature of these networks varies widely (as it does for public and private-school educated students, as well). Homeschooled students vary widely in the number of siblings they have (from zero to eight in our sample), and many spend time in non-sibling peer groups (e.g., homeschool co-operative classes, sports teams, social clubs, and church youth groups). Is participation in a more conventional high school context necessary for the adoption of linguistic innovations, or can homeschool experiences foster the same level of participation in an on-going change in progress?

In social contexts where the experience of having been homeschooled is common enough to reach a community’s level of awareness, having been homeschooled is also a social characteristic that can take on social meaning. This again has potential linguistic implications in terms of the imagined style of the homeschooler. Some of the participants who were interviewed in the current study volunteered observations about stylistic differences among students from different educational backgrounds:

(1) *Homeschoolers and private schoolers like they always seem like, you know, they’re always very, like they’re looking proper, like they talk properly, like which is all great but like, public schoolers are a little more, “Oh I don’t need to have everything.” So there’s definitely a little more, a casualness in how they talk. Don’t sound like they always need to be, you know, presenting themselves perfectly.* (P08, homeschool)

(2) *I think people from, people who’ve been public-schooled definitely seem a lot more kind of pop culture savvy. A little more mainstream maybe.* (P50, private school)

When asked specifically whether participants noticed any differences in how students from different high school types talked, responses varied. Those who claimed to notice a difference were generally unable to pinpoint specific features, with the exception of cussing:

(3) Interviewer: *In terms of language differences, would you point to anything specifically?*

P08: *I mean public schoolers obviously cuss more than the other—*

Interviewer: *I didn’t know that.*

P08: *Definitely. They definitely do.*
Any difference in the use of other specific linguistic variables either lies below the level of awareness or is at least not salient enough to be spontaneously offered in an interview context. While there might be a recognized homeschooler persona or homeschooler style, any linguistic correlates of such a style have not been specified.

In comparing the speech of college students from different high school backgrounds, we chose to focus our analysis on the use of verbs that introduce quotations (see 4). Quotative verbs have come into focus in the sociolinguistic literature since new quotative verbs were first noted in the early 1980s (Butters 1980, 1982). The rise in the use of the quotative be like (4a) is particularly remarkable, and it appears to have largely won out against other innovative quotatives like go (4b) and all (4c-d) (see Buchstaller et al. 2010). In fact, the rise of be like across the English-speaking world has been regarded as “possibly the most vigorous and widespread change in the history of human language” (Tagliamonte 2012, 248).

(4) Innovative English quotative verbs
a. **BE LIKE:** *It was just one day I woke up and I was like, “Okay, I can go there now.”* (P66, homeschool)
b. **GO:** *But if I saw a name I didn’t know, I would tell my parents and they’d go, “Oh yeah, we’re not sending you there, not a good-- not a good school.”* (P10, homeschool)
c. **BE ALL:** *She’s all “What do you mean, gum?”* (Rickford et al. 2007, 14)
d. **BE ALL LIKE:** *And she’s all like, “Well you HAVE to. Are you allergic to them?”* (ibid, 21)

The quotative system is an especially good candidate to test the idea that high school type might influence linguistic style, since “the time for acquiring the relevant social constraints on be like is during the high school years” (Tagliamonte and D’Arcy 2004, 506).

Quotative be like is also an attractive choice for our study because recent work in sociolinguistics has extensively documented its use and development. For example, we know that be like occurs in the speech of English speakers from different regional, ethnic, and socioeconomic backgrounds (e.g., Buchstaller and D’Arcy 2009; Cukor-Avila 2002; Drager 2015; Macaulay 2001). Moreover, many studies indicate that women and girls lead men and boys in the use of quotative be like (e.g., Barbieri 2009; Bucholtz 2011; Macaulay 2001; Romaine and Lange 1991; Tagliamonte and D’Arcy 2004), though others show the reverse or no difference (see Barbieri 2007; Blyth, Recktenwald, and Wang 1990; Buchstaller and D’Arcy 2009; Dailey-O’Cain 2000; Ferrara and Bell 1995; Singler 2001).

Research on quotative verbs has also carefully considered more local, situated social factors like Community of Practice and style. The results are remarkably similar despite being based in vary disparate locations across the English-speaking world. In her interviews in the mid-1990s, Bucholtz (2011) found that stylistic orientation (toward the styles labeled ‘alternative’, ‘hip hop’, ‘nerd’, ‘normal’, and ‘preppy’) influenced how students in a public high school in Northern California used quotative verbs. ‘Nerds’ and ‘preppy’ students used be like less often than average, though it was still their most frequent quotative, followed by say for ‘nerds’ (54.9% be like vs. 25.6% say) and be all for ‘preppy’ students (53.5% be like vs. 23.6% be all). Interestingly, the two participants with “the nerdiest styles” never used be like (Bucholtz 2011, 104). Similarly, Buchstaller’s (2015, 477-478) interview data from the northeast of England demonstrated that “some younger speakers shun the robust trend towards quotative be like when
indexing stances of intellectuality, nerdness, professionalism, or eruditeness.” Of the 11 Communities of Practice identified in Drager’s (2015) ethnography of a girls’ high school in New Zealand, the most comparable to these ‘nerdy’ groups is The Geeks, the group who was “expected to try hard in school” (45), although the ethnographic details suggest that they were not embodying nerdy styles to the same degree as in Bucholtz’s and Buchstaller’s studies. The key predictive factor in Drager’s study was a binary split between the girls who socialized in the school’s common room (‘CR girls’) and those who did not (‘NCR’ girls). The Geeks were one of the NCR groups, and their name had been given to them by the CR girls. Drager’s study found that quotative be like was slightly more common among the CR girls than the NCR girls, and that the phonetic realization of be like was robustly predicted by whether the speaker was a CR or NCR girl.

Sociolinguistic research on quotatives also indicates robust age effects. Although an individual’s use of be like has been shown to peak during their mid-teens, use remains relatively high into young adulthood (Cukor-Avila 2002; Tagliamonte and D’Arcy 2007). Key to the possible homeschooler experience, however, is the fact that all of the parents of the college students analyzed here either entered adolescence before be like became dominant in the 1990s, or were among the first generation of be like users (see Buchstaller 2015; Tagliamonte, D’Arcy, and Louro 2016). In either case, this parental generation is unlikely to use be like as much as the young adults who comprise our participant sample. This prediction is also supported by evidence of age-grading with be like. Buchstaller (2015, 468) found that speakers over thirty “seem to be turning their back on the vigorous change” (see also Tagliamonte and D’Arcy 2004), although others have demonstrated some evidence for life-span change rather than age-grading (e.g., Barbieri 2009). For our purposes, the important observation is that while current college students are likely to maintain high rates of be like use, it is extremely unlikely that their parents (if they acquired be like at all) use it with the same frequency or in the same way as the members of their peer group. Thus, this variable is very likely distinguish the speech of young adults from the speech of their parents, making it a useful linguistic variable for comparing homeschooled students to students from more traditional schooling backgrounds.

The present study analyzes the use of quotative be like among American college students based on a sample of students who came from different types of high schools but were all studying at the same college in the Southeastern US at the time of the interviews. We compare participants who were homeschooled for all four years of high school to those who were educated in private or mainstream public schools throughout high school, and ask: do homeschooled students orient to linguistic styles in the same way as their peers from public and private schools? Specifically, do young adults who were homeschooled use be like with the same frequency and in the same way as the young adults who represent more typical participants in sociolinguistic studies? Though homeschool experiences vary widely and specific predictions about this group’s quotative system are not entirely straightforward, we hypothesized that homeschoolers might show a distinct sociolinguistic profile in comparison to both groups, possibly as a result of having reduced access or exposure to peers and the social orders that structure school communities (see Chatham-Carpenter 1994; Medlin 2000).

The results show that the homeschooled students have a quotative system that is actually very similar to that of their peers, rather than to the rates we would predict for their parents. Even relatively limited exposure to peer-based linguistic norms seems to lead to the robust adoption of this linguistic change. The data further suggest that, among homeschoolers, the amount of exposure to peers in a school setting may influence the acquisition of social constraints.
Furthermore, we find that while variation is not predicted by schooling type, it is predicted by the speaker’s stylistic orientation toward or away from an ‘academic’ or ‘nerd’ linguistic style, and that this style may be more typical of private-school educated students as compared to public-schooled and homeschooled students. We consider how high school experience is reflected in the linguistic styles students employ during their college years, regardless of whether or not they were homeschooled.

METHODS

The data for this study were extracted from a set of one-on-one interviews that were part of a larger study (conducted by the third author) investigating how homeschooled students at three different Christian colleges and universities choose an institution for their higher education (see Author 2016, 2017). The interviews for this study were carried out in the autumn of 2015 at a small Christian liberal arts college in the southeastern United States. This particular college was chosen for the larger study because of its relatively high proportion of students who were homeschooled prior to attending college. According to the college website, approximately 25% of the student body at the time of data collection had been homeschooled, whereas homeschoolers make up an estimated 3% of the United States’ K-12 population (Redford, Battle, and Bielick 2016). This particular institution was chosen for the current linguistic analysis because the interviews at the other two institutions had already been conducted by the time IRB approval was granted for the linguistic portion of this study.

Participants were recruited from undergraduate courses in composition, linguistics, and psychology and were given extra credit for participating. Of the 66 undergraduate students interviewed, the analysis here only concerns the 57 participants who were raised in the US and attended one type of schooling (private, public, or home) throughout all of high school. We further excluded the data from the two participants who did not identify as racially white, since quantitative comparisons of race or ethnic identity were not possible, and race and ethnicity have been previously found to pattern with quotative use (e.g., Singler 2001, Cukor-Avila 2002, D’Arcy 2010). Finally, one participant (a private-schooled man from the South) did not contribute to the sample because he did not produce any instances of quoted speech; we will return to him when discussing the results from the other speakers. The final dataset consisted of 54 interviews (36 women, 18 men; mean age = 19.6), which consisted of 1-39 tokens of quoted speech per speaker (mean = 13.2 tokens; see Table 1). Half of the participants were homeschooled for high school (N=27), 14 attended private high schools, and 13 attended public high schools.

The interviewer was the third author (a white, female professor in her 50s who was born and raised in rural north Texas), and the interviews were conducted individually in a quiet space in the campus library. After providing written consent, participants completed a written demographic questionnaire which included questions about the type of schooling they received for each grade level. Homeschooled students were also asked to specify the components of their homeschool education, which included, for example, parent-taught courses, homeschool co-operative classes, college classes, and online classes.
The interview questions centered around how participants chose which college or university to attend. Each interview began with a general question about the participants’ K-12 experiences and then moved to more specific questions about the factors (family, friends, campus visits, etc.) that influenced their college choice. These questions, while designed with the larger project in mind, were particularly successful at eliciting narrative sequences which often favor the use of be like over other quotatives (see Buchstaller 2015, 474). On average, the interviews lasted around 17 minutes (range = 9-26 minutes). The interviews were recorded on an iPad using Voice Recorder by TapMedia Ltd and transcribed by two trained undergraduate research assistants using ELAN (Brugman and Russel 2004). The extraction and coding of quotative verbs was carried out by one of the research assistants (Rachel Krumenacker) and checked by the first author.

All tokens of quotative verbs were initially included in the analysis except for those that occurred with the dummy subject it (N=63). Previous work has argued that quotatives with non-referential subjects require the choice of be like for the quotative verb (see Singler 2001; Tagliamonte and D’Arcy 2004; Tagliamonte, D’Arcy, and Louro 2016), and therefore lie outside of the envelope of variation. Of the 63 quotative tokens with dummy subjects in our data, 56 occurred with be like (see 5a), five with be and not like (5b), and two with highly infrequent quotative verbs followed by like (5c-d).

(5) Example tokens with dummy subjects
  a. *That was really when it was like*, “Hey, it’s possible for me to go there, and that’s where I wanna go.” (P61, homeschool)
  b. *For my dad it was mostly just*, “What kind of education will you be getting?” (P51, public school)
  c. *But there was not much hesitation or doubt when it came to like*, “Alright it-- this is where I need to be.” (P65, homeschool)
  d. *And then it really felt like*, “Yes, I am-- I feel welcome here at college.” (P02, homeschool)

Because of the skew in the data toward 1st and 3rd person subjects, we also excluded all tokens where the grammatical subject was 2nd person (N=20) or ambiguous (N=2). We then combined all 1st person forms together (N=262) and all 3rd person forms together (N=328), making PERSON a binary factor encompassing both singular and plural forms.

We also excluded 110 quotative tokens that fell into one of the following frames where it was not possible to code for grammatical person or verb tense (6-7):

(6) Function words (N=81): The quotative followed a function word such as a conjunction, determiner, preposition, or complementizer. Tokens in this category sometimes included modifiers or discourse markers between the function word and the quotative.
  a. *Most of my visits were just family business, and “may as well walk around the college while we’re up there.”* (P39, private school)
  b. *When you talk to people and it comes up that you were homeschooled, there’s kind of the*, “Oh, you were homeschooled, that’s, like was that real school? Like is this hard?” (P65, homeschool)
  c. *Yeah, cuz it was just like from, “I’m not going here,” to like “I’m going here.”* (P66, public school)
(7) Other *like* (N=29): The quotative followed *like* without a copula or other function word such that it was not possible to determine if the *like* was a discourse marker, a discourse particle, or a quotative.

a. *I don’t think. No, I don’t think I notice it, but I think that’s just cuz I haven’t really been like paying attention, like, ‘Are you homeschooled? Are you not?’* (P58, homeschool)

b. *It was just kind of like, you know, part of the name, like you know, ‘We’re a Christian college and we’ve got this stuff if you’re into that, but if you’re not, you know, it’s okay.’* (P50, private school)

In keeping with previous work (e.g., Tagliamonte and D’Arcy 2004), we included quotative tokens when there was no overt quotative verb as long as it was still possible to code for the grammatical person and verb tense. This included cases like (8a) where the subject was overt and the verb tense could be inferred (‘no verb’, N=6) and cases like (8b) where both the subject and tense were absent but inferable (‘zero’, N=10).

(8) Examples tokens with no overt quotative verb

a. *And um I went, just of a spur of the moment thing, cuz they were wanting, they [3RD PERSON, PAST PROGRESSIVE], ‘Oh we have one more spot; who wants to go to Covenant College?’* (P30, private school)

b. *It had a circle around some equation, and a note on it. a [3RD PERSON, SIMPLE PAST] ‘My professor won a Nobel Prize for this.’* (P67, homeschool)

In contrast to some previous studies (e.g., Cukor-Avila 2002; Tagliamonte and D’Arcy 2004), but in line with others (e.g., Bakht 2010), zero forms were relatively rare in this dataset. In the results that follow, we include these 16 tokens, all of which are coded as ‘Other’ and grouped together with all other quotatives that are not *be like* (e.g., say, think, know).

Previous studies often also include a factor representing whether or not a quotative was accompanied by mimetic re-enactment, and in some cases, this factor has been found to be the strongest predictor of *be like* usage (Buchstaller and D’Arcy 2009; D’Arcy 2010). Despite the likely importance of this factor in studies of *be like* more generally, we were unable to code for mimesis in the current dataset, due to the lack of information about gestures and facial expressions. While we initially attempted coding for mimesis only in terms of voicing effects, as in previous work, occurrences were so rare that it seemed unlikely we would obtain the statistical power necessary for an analysis of the variable, which was thus left for future work.

Finally, we recoded all verb tenses other than simple past and historical present as ‘other’. This level included modals (N=49), gerunds (N=24), and less than 12 tokens each for future, non-finite, past passive, past perfect, past progressive, present perfect, and present progressive tenses (see Appendix A). There were no tokens of simple present, which is unsurprising given that the interview questions focused on participants’ past experiences with choosing a college. The result factor of verb TENSE has three levels as shown in Table 2.

[ - - Table 2 here - - ]
Our social factors included participants’ outward presentation of social GENDER (binary) and their stated history of SCHOOLING type (public, private, home). We further categorized the schooling type of homeschoolers as either homeschooling that occurred WITH PEERS (i.e., in face-to-face co-operative classes and/or college classes; N=16, 146 quotative tokens) or HOME ONLY (N=11, 68 quotative tokens). This difference between types of homeschooling experiences is examined at a descriptive level only, due to lack of statistical power. A third social factor, PERSONA STYLE, was included based on previous research indicating its significance as a predictor of quotative use. Previous studies on the use of be like among high school students have typically focused on variation among students attending the same high school. In these cases, the stylistic orientation of the speaker was a robust predictor of be like use. In particular, high school students who were seen to orient towards an “intellectual elite” persona (Bakht 2010), “nerd” persona (Bucholtz 2011), or “erudite” persona (Buchstaller 2015) used be like significantly less than peers who oriented to the stylistic practices of other personae. We take these three particular personae to be roughly comparable, at least to the extent that they motivate the inclusion of an additional binary predictor in our statistical analysis: PERSONA STYLE (‘nerd’, non-‘nerd’). We adopt the term ‘nerd’ here because it is an established term from the literature and was used in one of the interviews analyzed; none of the other terms from the literature, nor any other relevant terms, appeared in the data. We use the term ‘persona style’ to distinguish this factor from the style factor more common in traditional sociolinguistics (e.g., spontaneous speech vs. read speech).

The nature of our speaker sample further motivated the inclusion of persona style as a factor. Although these data were collected among college students (rather than high school students, as is common in previous work), and although we were unable to draw on ethnographic evidence of stylistic practice, the interviews themselves were ideal for operationalizing persona style. Because each speaker was being interviewed about how they chose their college by an interviewer who is an academic, the data represent speech obtained in a discursive context that is maximally constructed to elicit stances toward or away from academic topics. Speakers were directly positioned to present themselves as more or less academically oriented, contributing to the construction of something more or less akin to a ‘nerd’ persona. This type of persona construction was evidenced not only in what they said in answer to the interview questions, but also in how they said it. With respect to the former, when asked to give reasons for their choice of college, participants often gave academic reasons (e.g., coursework, professors, academic programs), though non-academic ones (e.g., community, location, sports, social networks) were common as well.

Some students gave both types of reasons, and the primacy of one over the other was not always clear, or even relevant. Therefore, we operationalize persona style here with reference to the linguistic choices participants made during the interview. In particular, participants were coded for their use of a ‘nerd’ persona style based exclusively on their use of another linguistic feature often tied to the construction of this style—“latinate and learned lexis” (Buchstaller 2015, 476; see Benor 2001; Bucholtz 2011). We measured the degree to which each participant used “latinate and learned lexis” by calculating each speaker’s frequency of use of academically-oriented words, which included all and only the following lexical items used in relation to academic topics: academic(s), academically, challenge(s), challenged, challenging, course(s), honor(s), institution(s), liberal arts, professor(s), rigor, rigorous(ly), scholarship(s). We included all tokens of these words that were used in an academically-oriented way. For example, we only included uses of challenge(s) when discussing academic challenges, and excluded any
tokens referring to personal or physical ones. Because the interview content focused on how participants chose a college, most (though not necessarily all) uses of the uses of these academic words were made when discussing their decision-making process.

We then divided participants into two PERSONA STYLE groups based on their use of these ‘academic’ words. For each participant, the proportion of academic words was calculated over all words they uttered in the interview. The sample was then split in half, with the 27 participants who used the highest proportions of academic words labeled as ‘nerds’ and the remaining 27 as non-’nerds’. By categorizing participants as such, we are in no way claiming that they would self-identify as or be ethnographically classified as belonging to the assigned groups. Rather, this method was chosen as a practical first pass at incorporating insights from other ethnographic studies into a small corpus analysis. We sought to operationalize persona based on linguistic criteria (lexis) in order to approximate the more nuanced and multifaceted linguistic styles described in previous work. Note that, while SCHOOLING and PERSONA STYLE are not the same factor by any means, they are correlated: private-schooled participants used the highest proportion of academic lexis, followed by homeschooled participants, followed by public-schooled ones who used the least. The two factors are, however, different enough that their strength as model predictors can be directly compared.

Table 1 presents the number of participants and number of quotative tokens by high school background, gender, and persona style. There are differences between groups in terms of the overall amount of quotative speech produced, and these provide a necessary context for interpreting the results for type of quotative that will be explored in the next section. Note that since we are most interested in the quotative type, the quotative token numbers have not been normalized by length of interview and should not be taken to reflect the proportion of quotative speech produced by members of that group. While proportion of quotation could very well be a marker of linguistic style itself (and recall the one private-school educated man who produced no quotation at all), these token counts should only be taken to represent the amount of data available for analysis for each group. The most well-represented group in terms of both numbers of speakers and numbers of tokens is the group of non-‘nerd’, homeschooled women, while the least-represented group is the one ‘nerd’, public-schooled man. These differences reflect imbalanced representation at each factor level: there is more data from ‘nerds’ than non-‘nerds’, more data from homeschooled students than from private-schooled students than from public-schooled students, and more than three times as much data from women as men. Preliminary model testing indicated that the results for the subsample of women (the demographic subsample with the largest number of tokens) were comparable to results for the sample as a whole, while results for the subsample of men were not. It therefore seems unwise to present models of any data subsets. The results in the following section are modeled only on the full dataset, and effects concerning any of the underrepresented factor levels should be treated with some caution. The final, best-fit model includes a random intercept of speaker, in an attempt to control for the effect of individual speakers.

RESULTS

Overall, the interviews yielded 527 tokens of analyzable quotative verbs. Our results confirm that be like is the most favored quotative verb, in this case in the speech of American college students recorded at a Southern, Christian liberal arts college in 2015. Be like was by far the most
frequent quotative (73%), followed distantly by say (11%). The most frequent verbs are listed in Table 3 along with the null forms (i.e., ‘zero’ and ‘no verb’). The remaining verbs (N=20; e.g., answer, decide, hear, realize, shout, teach) were only represented by 1-3 tokens each.

Besides be like, the only other innovative quotative represented in the data was go (see 9), but this verb was very rare (1%). There were no tokens of quotative all.

(9) Example tokens of quotative go
a. But my sister’s been running through the same thing, and she says that all the colleges emailing her go, “Last chance for early registration. Last chance for registration. Last chance for really late registration. Last chance for really really really late registration.” (P10, homeschool)
b. I can look back on that now, and go, “I can take whatever this semester has for me.” (P19, homeschool)
c. And then one of the professors made an allusion to my dad and I was sitting in the back going, “Oh no, people are going to look at me.” (P11, private school)
d. And he goes, “Really? I’m on the—the board of admissions.” (P48, private school)

Figure 1 plots the distribution of be like versus all other quotatives according to the social factors coded for in our data. Based on these plots, we might expect to see significant differences in a statistical model for all three social factors, with be like expected to be favored by women (86% be like), public-school educated students (90% be like), and non-‘nerds’ (87% be like). At a glance, the homeschooled students (81% be like) seem to roughly approximate the overall and gender-specific patterns of the private-school educated students (71% be like).

To analyze the predictors of quotative use in this dataset, we built a binary logistic mixed-effects regression model predicting the use of be like versus other quotative verbs with grammatical PERSON, verb TENSE, speaker GENDER, speaker SCHOOLING, speaker PERSONA STYLE, speaker AGE, and speaker number of SIBLINGS as fixed effects, and SPEAKER as random intercept. We performed manual, drop-one model comparison with the lme4 library in R (Bates et al. 2015). We attempted to model interaction effects between the three social factors, but none of these emerged as a significant improvement to the best-fit model, perhaps due to lack of statistical power (a possibility we return to in the Discussion section). Lastly, we attempted a by-speaker random slope with grammatical PERSON, but the model did not converge so this was removed. The final best-fit model is presented in Table 4.

Based on the patterns shown in Figure 1, we might have expected to see an effect of schooling type on quotative use. But while this factor emerges as significant in a model without PERSONA STYLE, including PERSONA STYLE results in the elimination of SCHOOLING from the best-fit model. Speaker AGE and number of SIBLINGS are not found to be significant predictors in this overall model either.
The significant predictors of quotative *be like* in this sample are grammatical subject (PERSON), verb TENSE, speaker GENDER, and speaker PERSONA STYLE (Table 4). For grammatical subject, we see *be like* occurring more often with first person subjects (88%) than with third person subjects (72%). This pattern is consistent across high school background, gender, and persona style. For verb tense, we found no difference between simple past and historic present, but *be like* was significantly more likely to occur with past tense verbs (84%) than with verbs that have less frequent tense/aspect features (65%; see Appendix A). In other words, when using relatively rare verb tenses, our participants also tended to use relatively rare quotative verbs. For speaker gender, women (86%) were significantly more likely to use *be like* than men (60%). As seen in Figure 1, this difference is much clearer among the private-schooled and homeschooled students than among the public-schooled students, though the same pattern of women leading *be like* use is found within each school type. The smaller difference in the public-schooled group may simply be due to the fact that there were so few men (and also so few tokens) representing that category (see Table 1); an interaction effect between SCHOOLING and GENDER class did not reach significance in the best-fit model. Lastly, like the ‘nerds’ and ‘intellectual’ students described in previous studies, the students we’ve categorized as ‘nerds’ here were significantly less likely (71%) than non-‘nerds’ (87%) to use *be like* (see Figure 2). Persona style, as measured by the use of academic lexis (see Methods), serves as a stronger overall predictor of quotative choice than high school background (Table 4). In summary, quotative *be like* appears to be favored by women and non-‘nerds’, regardless of schooling background.

The main takeaway from these results is that, overall, college students who were homeschooled pattern just like their more conventionally educated peers in their use of quotative *be like*. One possible reason for this might be the fact that homeschooled participants had highly diverse experiences of what it meant to be homeschooled. Of the 27 homeschooled students, 16 (11 women, 5 men) were educated, at least partly, with in-person peer groups that extended beyond their nuclear family. For example, they took courses at local colleges/universities or enrolled in private classes organized for groups of homeschooled students (generally referred to “homeschool co-op classes”). The remaining 11 homeschooled students (7 women, 4 men) were educated exclusively at home, sometimes participating in online classes, but not attending classes that involved face-to-face interaction with peers (aside from any siblings). Figure 3 shows the distribution of *be like* among these participants; “With Peers” designates those educated at least partly with in-person peer groups and “Home Only” refers to the others. Although the data here are sparse, the gender effect seen in the main model is clearly evidenced in the “With Peers” group, but not at all in the “Home Only” group. In fact, the proportion of *be like* use among women who were homeschooled with peers (92%) is essentially identical to that of the public-schooled women (93%). In contrast, the proportion of *be like* use among men who were homeschooled with peers (56%) is much more similar to the private-schooled men (49%). Here, for the first time, we see a potential effect of the homeschooler experience that fits with our initial predictions: women who were homeschooled, but only those who were homeschooled with limited interaction with peers outside of their family structure, show a relatively
conservative rate of *be like* production (69%) as compared to all the other women in the sample (with private-schooled women at 80% *be like*).

[ - - Figure 3 here - - ]

In summary, the significant predictors of quotative production among this sample of 54 mostly Southern, Christian, college students are grammatical subject, verb tense, participant gender, and participant persona style. Women overwhelmingly favor the use of quotative *be like* as compared to men in this sample. With respect to persona, we have found that a rough, binary division between those participants who use more academically-oriented lexis versus those who use less shows that the latter group (the non-‘nerds’) is more likely to use quotative *be like* than the former group (the ‘nerds’). However, this difference is more apparent among the women in this sample. And while we find no significant difference based on schooling for the sample as a whole, among the 18 men there is a more salient difference between public-school educated on the one hand, who are more likely to use quotative *be like*, and private-school educated men on the other hand, who are more likely than the other participants to use conservative verbs like *say*, with homeschooled men falling in the middle (Figure 1).

**DISCUSSION**

Overall, quotative *be like* accounts for 73% of the quotatives in this dataset. While 73% is lower than the overall rates observed for speakers of a similar age and birth cohort seen in some other studies (e.g., the data from Victoria, British Columbia in Tagliamonte, D’Arcy, and Louro 2016), it is higher than the seen rates in others (e.g., the Longman Corpus analyzed in Barbieri 2007; Biber et al. 1999). 73% is also generally comparable to other recent studies based on similar-sized corpora. For example, Rickford et al. (2007) found that *be like* accounted for 69% of quotatives (N=544) in a 2005 corpus of sociolinguistic interviews with Californians between ages 15 and 25. Buchstaller (2015) found that *be like* accounted for only 55% of quotatives (N=249) from a 2011-2013 corpus of interviews with Tyneside, UK speakers between ages 15 and 19. Drager (2015) found *be like* accounted for 88% of quotatives (N=890) in a 2006 corpus of ethnographic speech with Canterbury, NZ speakers at an all-girls’ high school (as compared to the women in the current study with a rate of 77% *be like*). Despite the relatively limited amount of data analyzed here, the overall rate seems comparable to that documented for speakers of a similar age or birth cohort in other parts of the United States and the English-speaking world.

However, it is worth considering that the rates documented here may nonetheless underestimate the speakers’ rates in other, more casual and less monitored, social contexts (cf. Buchstaller 2015, 472-473). The stigma that has been previously associated with quotative *be like* (see Buchstaller 2006, 2015; Dailey-O’Cain 2000) suggests that underestimation might be especially likely for these data, given that the speech analyzed was obtained from one-on-one interviews in the college library with an unfamiliar college professor in her mid-fifties. Unfortunately, potential effects of the addressee have not been systematically accounted for in the previous literature on quotatives, so it’s difficult to judge the extent to which our participants may have decreased their use of *be like* when speaking this interviewer. However, the rates shown here are not far off from those in Barbieri’s (2009) study of the Longman Corpus, which was comprised of casual interactions between friends and family. Furthermore, the relatively
robust rates of *be like* use in the current study may reflect a lack or reduction of the stigma previously reported for this variant. If so, we might have found comparable results for interviews or even casual conversations with peers.

Although *be like* is strongly favored by both men and women in the data presented here, we still find a strong effect of speaker gender; women favor *be like* to other quotatives at a higher rate than men, in line with most previous work. The difference between men and women is weakest among the public-schooled students, which may be a socially meaningful difference across schooling types, or may just be due to the small number of men in the public-schooled participant pool. Indeed, there was no significant statistical interaction between gender and educational background. It is worth noting again that we did not control for the gender of the interlocutor, so we may have obtained different results had a male professor (or peer) conducted the interviews. Again, we recognize that participants may have suppressed their use of *be like* because the interlocutor was a middle-aged professor who does not use *be like*, and this suppression by the participants could have been especially pronounced among the men since the professor was female. However, given that the interviewer and interview context were held constant across all interviews, we are unable to characterize the kind of influence that the interlocutor may have had on participant’s use of quotative verbs. It could be that students from different schooling backgrounds also show different strategies of accommodation, but this possibility is left for future work.

In terms of linguistic factors, the present data also show agreement with previous work. As in other studies (e.g., Buchstaller and D’Arcy 2009; Tagliamonte, D’Arcy, and Louro 2016; Tagliamonte and D’Arcy 2004; but see Cukor-Avila 2002), *be like* is favored with first person subjects more than third person ones (though *be like* is certainly still common with third person subjects; c.f., Blyth, Recktenwald, and Wang 1990). As for verb tense, we found no difference between historical present tense versus simple past tense, which contrasts with previous research that found *be like* to be significantly more likely with historical present tense than past tense (e.g., Blyth, Recktenwald, and Wang 1990; Buchstaller and D’Arcy 2009; Singler 2001; Tagliamonte, D’Arcy, and Louro 2016). This result may provide evidence that the *be like* is becoming grammaticalized to some extent in that its use may be extending into other tenses (c.f. Ferrara and Bell 1995; Tagliamonte and D’Arcy 2004). Nevertheless, the significant difference between past tense verbs and the set of verbs with less frequent tense/aspect features indicates that grammaticalization is not complete with regard to tense.

After controlling for a factor of persona style operationalized as ‘nerd’ versus non-‘nerd’, high school background was a not significant predictor of *be like* use in the overall model. But while schooling can be thought of in terms of social networks and contacts with peers, it can also be thought of in terms of persona and social meaning. Indeed, the participants in the current study framed schooling background in terms of persona (see quotes in (1)-(3)). Rather than comparing two distinct factors (‘schooling’ and ‘persona’), we have perhaps been comparing two aspects of a single intersectional factor. For example, constructing (or avoiding) a nerd persona style may be more relevant to public-school and homeschool educated students than those from private schools. If the unmarked persona style for a private school student is already a bit more ‘nerdy’, then the use of academic lexis might be more stylistically normative, and therefore less stylistically powerful, in private school contexts. This also suggests that privately educated students should be seen to pattern more like the nerds from the other types of schools, and indeed our results support this: private-schooled students used more academic lexis, overall, than public-schooled and homeschooled students, and both ‘nerds’ and private-school educated students have
a *be like* rate of exactly 71%. Although our participation population is not socioeconomically diverse, the indexical similarities between nerdiness and private schooling may be class related. Carmichael (2014) notes that private schools are associated with higher academic and social class prestige, and Bucholtz (2011, 162) notes that “nerdiness [is] ideologically associated with the middle class,” even if “individual nerdy students were [themselves] not necessarily in the higher socioeconomic strata.”

This persona style is necessarily gendered, as well. Bucholtz (1999, 211; 2011) notes how, at least in a public school context, “[n]erdiness is a particularly valuable resource for girls,” in that it provides the linguistic and other stylistic resources for simultaneously resisting dominant gender norms and dominant public school social norms. Despite the lack of an interaction effect in the regression model, social analysis suggests that the effect of a speaker’s academic orientation does depend on that speaker’s gender presentation. Although the ethnographic work remains to be done, we suggest that this also holds for personae based on schooling. The descriptive patterns of quotative use seen here seem to point to two oppositional persona: the nerdy, privately-educated man, and the not-nerdy, publically-educated woman. From this perspective, academic orientation, schooling, and gender may all be dimensions of *be like*’s indexical field (Eckert 2008). We suggest that, despite the lack of a statistically significant three-way interaction effect in our model, quotative use may possibly index these intersectional social meanings more than just the ‘nerd’/non-‘nerd’ meaning. The data in this study lacked the statistical power to test for this, and we suggest it as an avenue of future work.

Since high school background was not directly predicative of quotative use and homeschooled participants demonstrated vigorous adoption of this relatively recent linguistic change, we are left with the question of how homeschooled students acquired a trendy quotative system like their peers from traditional schools. As discussed in the Introduction, we expected this group to be the least likely to adopt high rates of quotative *be like*, given that the parents of all of these participants are unlikely to use *be like* very frequently, if at all, and homeschooled students will have interacted with their parents and others of their parents’ generation much more, on average, than students who attended conventional schools. We found that homeschooled students have nonetheless adopted *be like* as their primary quotative verb, that their rate of *be like* use is highly similar to that of their peers, and that they observe the same linguistic constraints as their peers. This is true even among the subset of homeschooled participants who did not regularly attend classes with in-person peer groups, i.e., those whose schooling was truly primarily in the home. And while homeschooled students were raised with differing numbers of siblings (who might be a source for the exposure to peer group linguistic norms), the number siblings a participant had was not found to correlate with their use of *be like*, either.

If the social constraints on *be like* use are acquired during the high school years or earlier (Tagliamonte and D’Arcy 2004; cf. Barbieri 2009, 80), it’s reasonable to assume that this variable has been learned from face-to-face interaction with peers, since previous research has demonstrated that the contribution of media, including social media, to linguistic change is arguably minor (see *Journal of Sociolinguistics* 18.2, 2014; Tagliamonte, D’Arcy, and Louro 2016). Although our homeschooled participants did not interact with peers in a conventional high school environment, they were far from socially isolated. In their interviews, they were quick to point out involvement in peer-based extracurricular activities such as church youth group, sports teams, and youth orchestras. In fact, over half of the homeschooled participants attended some classes with peers either in homeschool cooperative classes or at local colleges. While both
homeschooled students who were educated only at home and those educated in-person classes with peers produced high levels of *be like* quotatives, only those who had regular face-to-face interaction with peers as part of their high school experience seem to have acquired the primary social constraint on *be like* use: that women favor this variant more than men. These findings suggest that limited exposure to peer groups through extracurricular activities may be sufficient for the acquisition of linguistic innovations, but that more extensive interaction may be needed for the development of the relevant social constraints. We recommend this as a promising line of inquiry for future research.

In addition to considering and including participants with a background in homeschooling, the present paper is novel in focusing on students at a Christian liberal arts college. Christianity is an important part of life for the participants in this study, in a way that is not often seen in studies in variationist sociolinguistics. However, it’s not clear, based on this particular sample, what role Christian identity might play in speakers’ quotative use, if any. Yaeger-Dror (2015) notes how religion is an understudied social factor, but that the recent literature that does consider it shows how it can be a significant predictor of patterns of linguistic variation. While this literature so far has largely focused on members of religious groups as compared to other members of the community outside of those groups (Kaiser 2015; Rosen and Skriver 2015), Baker-Smemoe and Bowie (2015) also compare active and non-active members of the same religious group (Mormons in Utah), finding further linguistic differences. Such research points the way for further comparisons with our work. For example, how similar would the speech patterns be among homeschooled (and privately-schooled) participants attending non-Christian liberal arts colleges, especially among those who were homeschooled (and private-schooled) for non-religious or other-religious reasons?

In our study we have used high school information to model college speech production patterns, which might be concerning if we anticipate significant linguistic shifts from high school to college. Wagner (2014) showed a change in the use of sociolinguistic variables from high school to college, but only for those variables that indexed social meanings that were less relevant to the college social order than the high school social order; variables indexing social meanings that remained salient across this transition remained or increased their signaling potential into college. Since *be like* has become the most frequent quotative in most varieties of English, it is not likely to carry a particular indexical value (or field of values; Eckert 2008) that is more (or less) relevant in college than in high school. We therefore have no reason to believe that the participants in this study changed their quotative system markedly between high school and college; specifically, we have no reason to believe that the homeschooled students increased their use of *be like* from high school to college. Of the 27 homeschooled participants, 11 (6 women) were first-semester freshmen in college at the time of their interview. This group of homeschooled freshmen actually favored *be like* slightly more than those 16 (12 women) who had been in college over a year already (79% *be like* vs. 77% *be like*). While we cannot say whether the patterns seen here would have been replicated with longitudinal data from when the participants were high school students, we expect that they would have. Similarly, there is little evidence to suggest that students from private and public high schools only begin to distinguish themselves from each other stylistically once they start college. Though students at this college are generally aware that other students come from different types of high schools, this characteristic does not seem to be key factor in the organization of social groups or Communities of Practice at the college. Instead, it seems more likely that stylistic differences between these
students were acquired in high school and then maintained, at least to some degree, during the college years.

CONCLUSION

To our knowledge, this research represents the first variationist study of the speech of young adults who were educated in non-traditional schools. As such, it represents an important first step in gaining a fuller understanding of the mechanisms by which socially marked variables are acquired during adolescence. While it’s reasonable to assume that the linguistic and social constraints of linguistic innovations can be learned outside of the conventional school environment, the lion’s share of face-to-face peer interactions for most adolescents who have participated in sociolinguistic studies occurred during school and school-related activities, so it’s not clear whether these innovations actually are learned outside of school-based experiences. Our results indicate that the distinct social environment of homeschoolers is indeed sufficient for the acquisition of *be like*, since homeschooled participants showed patterns of *be like* use that were statistically indistinguishable from their peers who attended public and private schools. Nevertheless, we have reason to believe that the homeschool environment can, in some cases, limit the extent to which the social constraints on new variables are adopted. Even though homeschooled participants who were schooled exclusively at home demonstrated high rates of *be like* use, this was the only subgroup to show no difference between women’s and men’s rates of use, with particularly low rates of use among the women. This result raises the possibility that more extensive face-to-face interaction with peers, such as is provided in school, might be necessary for the full development of the social constraints governing the use of innovative variants.

School environment also appears to play some role in determining the linguistic style that speakers adopt later in life, or at least during their college years, in the sense that private-schooled students in this study avoid *be like* relative to their public-schooled and homeschooled peers. We suggest that this schooling difference might be best explained from the perspective of persona management, in that the private-schooled students in this sample may have been more likely than the other students to orient towards the ‘nerd’ persona described in previous literature. If so, then their avoidance of the *be like* quotative can be understood as part of a larger effort to construct a scholarly or intellectual speech style.

Taken together, these findings support the growing body of evidence that persona-based factors are crucial for a thorough account of stylistic variation, but that factors like type of schooling, that fall between traditional micro-level factors like stance and persona and macro-level factors like gender and ethnicity, may also be important for understanding the adoption of linguistic innovations. Finally, our results provide fresh evidence that although *be like* appears to be replacing other quotative verbs, it still serves, in some contexts, as a useful tool in the construction of linguistic style.

1 None of the participants in this study produced any examples of profanity in these interviews with an older, female professor, but this observation might be tested in less formal social environments.

2 Some research suggests that homeschoolers attend college at higher rates than the national average (Ray 2004), but it’s difficult to determine the average number of homeschooled students now attending college. Colleges and universities rarely publish this statistic, and even when they do, institutions differ in how they define homeschooled students (e.g., a certain number of years in K-12 homeschooling, a homeschool transcript, etc.). Also, many
homeschoolers are not classified as such because they simultaneously attend some traditional high school or college classes and use transcripts from those institutions. An informal survey of admissions directors at four other Christian colleges revealed a range from 6% to 73% of the student body who were homeschooled. The institution with 73% is clearly an outlier, and our sense is that 25% is also an unusually high percentage.

Students from these courses represent a wide variety of disciplines at this college. This is because the composition course is a requirement for all students at the college, and the introductory-level linguistics and psychology courses fulfill general distribution requirements for students in different majors.

One of these participants self-identified as Asian and the other as biracial (both women, both private-schooled).

Most participants were Southern (n=38); others were from the West (n=8), the Midlands (n=6), and the North (n=2). Given this stark imbalance in representation, our analysis does not control for regional background, but preliminary analysis indicates identical or nearly identical rates of be like across the regions, except for the speakers from the West, where rates are (interestingly!) slightly lower than for the other regions (68% be like as compared to 80-82% for the other regions).

Although the brevity of these recordings is a disadvantage in terms of overall token frequency of quotatives, the interviews were kept short so that the results would be comparable to the brief interviews conducted as part of the larger research project mentioned above. Given Buchstaller’s (2015, 472) finding that speakers under 35 either produced higher or approximately the same rates of be like in the first half of the interview, we doubt that the length of the interviews contributed to an underrepresentation of the proportion of be like in the speech of our participants.

Thanks to Rachel Krumenacker and Lindsi Skinner for transcription work. ELAN is open source transcription software from The Language Archive of the Max Planck Institute for Psycholinguistics in Nijmegen, The Netherlands (http://tla.mpi.nl/tools/tla-tools/elan/).

Each subgroup (each cell in Table 1) is also fairly balanced for age range; there are speakers both at the start of and the end of college most subgroups. Despite the narrowness of the age range, we initially included AGE as a continuous factor in the analysis in case speakers’ quotative systems shift over the course of their college experience (which we did not find). The sample is also balanced, as well as possible, for number of siblings per participant. In most subgroups, there were participants who had from 1-3 siblings, and half of the subgroups included participants with 5-8 siblings. While a speaker’s number of siblings is not a predictor in previous studies of quotative be like, it may be particularly relevant for understanding patterns among homeschooled participants, so we include SIBLINGS as a continuous factor in our models.

Of the 7 tokens of quotative go, 5 were produced by 4 female ‘nerds’ (either private-schooled or homeschooled), and the remaining 2 were produced by the same male, private-schooled non-’nerd’.

Since all participants were college students at the time of data collection, age variation is minimal, but a lack of an age effect suggests that quotative systems are relatively stable throughout college. While there was no significant main effect of number of siblings in the full model, descriptively we see that speakers with no siblings use the least amount of be like (61%), followed by those with one sibling (68%), those with two siblings (80%), and those with three or more siblings (85%). While the current dataset does not have the statistical power to properly test this variable, this pattern fits with the descriptive pattern seen for type of homeschooling environment, where more exposure to peers influences quotative use.

There was more variation among the 9 public-schooled women (range: 50%-100% be like) than among the 4 public-schooled men in terms of be like use (range: 67%-100% be like). In each group, there was only one participant who used be like as his/her only quotative. The data are too sparse to draw conclusions from these observations.
REFERENCES


