Texted Word Choices Affect Instructor Perception

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Abstract

People make choices about how to represent themselves in conversation, and those choices affect how others judge them. In texted communication, cues to speaker identity and personality rely on word choices. We examined the assumptions people made about conversational partners in academic dialogue snippets when the speakers used negotiation words. Experimental participants generally assumed that the instructors in the dialogues were male, even though the department the participants were in had mostly female instructors. The words used also affected how speakers were viewed, with *clearly* and *obviously* leading to more negative perceptions of the speaker. This has implications for online learning, as well as for developing conversational agents. It also has implications for career success for instructors.

Introduction

In online communication, communicators do not necessarily know anything about their conversational partners beyond the words the partner uses. This can lead to miscommunication as in the following (knowyourmeme.com, 2017):

1) Texter A: EVERYONE SHUT THE FUCK UP I GOT ACCEPTED FOR A NASA INTERNSHIP
   Texter B: Language.
   Texter A: Suck my dick and balls I'm working at NASA
   Texter B: And I am on the National Space Council that oversees NASA.

People make judgments based on the spaces they are in, such as who they assume are using the space. In the NASA example, the intern did not expect a member of the National Space Council to be reading the texts. As another example, speakers in a subreddit for a university can be students, alumni, faculty, staff, or people unaffiliated with the university. In the following texted exchange at an online discussion forum, it is unclear who the two speakers are from the conversation (slugstructor, 2017):

2) A: I'm looking for a friend in CS102 (or a couple)
   Someone who knows me and knows how I like to work. Drop me email.
   B: Are you taking the course? I don't understand.

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A: Nope
B: Are you teaching the course?
A: Nope I just wanted to talk to folks taking it. Have talked to several now. Mission accomplished.

In this example, B cannot figure out if A is a student or a professor based on the text in the text post, so they ask for clarification. In addition to the words chosen, speakers in these examples also communicated through the way they texted (using capitalizations, using or not using punctuation such as contractions or periods). Other choices include spellings of words (such as duplicating letters in a word to indicate that the addressee should imagine the word being said slowly), timing of turns (such as responding quickly or slowly), and the use of additional informational cues that the communication platform may allow (such as emojis, images, message effects, or gifs).

Mutual understanding in conversations takes advantage of all information available, including who is speaking and what they are saying. Sometimes this information is explicit, such as being told a communicator's gender, background, or profession. Sometimes it is implicit, such as inferring a communicator's gender, background, or profession based on the words chosen. For example, in one study, credibility was affected by both speaker profession (medical or non-medical professional) and speaker word choices (technical versus non-technical language; Thon & Jucks, 2017). In the current study, we assessed how texted word choices affected college students' perceptions of speaker gender and personal qualities. The texted messages were designed to mimic academic social media comments (e.g., Discord) and were purportedly made by a professor, a teaching assistant, or a classmate. These statements varied by how much the words implied willingness to negotiate with addressees. Because little work has been done on what assumptions people make when conversing with others in academic chat groups, it is unclear how assumptions will change based on the words used.

Background

Instructor Characteristics Affect Perceptions

Word choices can serve as implicit identifications of race, gender, or education by triggering stereotypes or tropes about groups of individuals (Beltrama & Schwarz, 2024; Bucholtz, 2001). These stereotypes can have highly negative consequences. For example, in a study of high schoolers in the 1990's, use of full pronunciations of words and fancier words, along with the absence of slang, indicated that white students were nerds (Bucholtz, 2001). The white nerds chose this way of speaking to differentiate themselves from other groups. At the same time, Black students hid their intelligence and avoided being seen as nerds because it came at a greater cost to them, including being seen as acting white (Bucholtz, 2001). Other stereotypes affect instructors in academic settings. For example, when women instructors do not fit the nurturing stereotype, they get worse teaching evaluations (Martin, 2016). In another study, thinking instructors were female, even if they were not, had negative ramifications on teaching evaluations (MacNell et al., 2015).

Like the case of the white nerds who were glad to show their nerdiness versus the Black nerds who were not (Bucholtz, 2001), there is reason to believe both word choices and speaker characteristics would play a role in perceptions of speakers (Nguyen & Fox Tree, 2025). However, few researchers explore both the words chosen and speaker characteristics such as expertise. We found no work on how word choices and expertise affected perception in an instructional context. However, there was some research on the relationship between instructor expertise and students' perceptions. In the study, professors were described as distant, formal, and knowledgeable, and teaching assistants were described as relatable, understanding, and nervous (Kendall & Schussler, 2012, p. 196). But in this study, the instructors provided the lectures, and the teaching assistants oversaw the labs, so the data is confounded by setting and also potentially confounded by the amount or type of course material covered. In another study, at the start of the semester, teaching assistants were rated as less confident and less engaging than professors. But by the end of the semester, the teaching assistants were rated as more engaging and relatable than the professors (Kendall & Schussler, 2013). Here, too, however, the professors taught the lectures and the teaching assistants taught the labs.

While not much research has been done on instructor expertise and perceptions, there is much work on other instructional characteristics such as race and gender and how they affect teaching-related perceptions, namely student evaluations of teaching (for a review, see Fox Tree & Vaid, 2022). In these studies of the impact of instructor characteristics on students' evaluations, instructor characteristics are known to the students, either because they are told (as in the MacNell et al., 2015, study) or because they observe them directly (as in most other studies). But in some modern teaching settings, such as social media forums, instructor characteristics are not necessarily known. One might characterize this as the study of how imagined instructor characteristics affect instructor evaluation.

Understandably, this was not a topic of research in the past, as instructional communication almost always involved instructors and students who were known to each other through in-person interaction. Nowadays, social media in instructional settings through platforms such as Discord has created settings where communicators may not know information about each other. Even when not instructed to imagine aspects of their addressee, people do imagine aspects, such as whether their addressee is of a higher or equal status (Blackwell & Fox Tree, 2012). What they imagine affects how they use language. For example, they used different quotation devices depending on who their imagined addressees were in Blackwell and Fox Tree (2012). In another study, route descriptions were different when they were given to imagined older or younger addressees (Tenbrink & Andonova, 2010). Other researchers observed that imagined addressees affected how words were interpreted. For example, people tolerated higher levels of rudeness from an imagined friend (Gupta et al., 2007).

Based on existing findings that imagined characteristics influence communication (Blackwell & Fox Tree, 2012; Gupta et al., 2007; Tenbrink & Andonova, 2010), we predicted that imagined characteristics would affect perceptions. For example, we know that female instructors receive poorer teaching evaluations (e.g., Chavez & Mitchell, 2020; Fox Tree & Vaid, 2022; Heffernan, 2022; MacNell et al., 2015). Students also have stereotypes about professors that influence teaching evaluations, where female professors are evaluated on teaching style and male faculty members are not (Anderson, 2010). Male professors also benefit when they violate expectations, with male professors who are rated as nurturing receiving higher evaluations than equivalent women (Meltzer & McNulty, 2011). Because participants will be imagining these speakers based solely on the language use, we predict that imagined gender will impact how students describe the speaker. Imagined male instructors, then, would be more likely to be described more positively. If a student imagines the instructor as female, we predict that the instructor would be described more negatively.

We note here that we anticipated that the proportion of imagined instructors who were female would be about two-thirds, as that is the percentage of female instructors in the Psychology Department at our university from which the participants were sampled.

Besides information people are told about speakers (such as their status) or that they infer about speakers (such as gender), the words used by speakers can be understood to influence their perceptions, and this choice might interact with expertise level and imagined characteristics. We turn to word choices next.

Word Choices Affect Perceptions

Negotiation words are words that describe the amount of negotiation willing to be engaged in by the speaker (Nguyen & Fox Tree, 2025, under review). They include hedges (*kinda, sorta*) and boosters (*absolutely, obviously*), as well as *I don't know*. Although the words form a continuum, on the hedge side, the words indicate a willingness to negotiate, and on the booster side, the words indicate that no negotiation is needed (Nguyen & Fox Tree, under review).

These words are often found in academic settings because they help to modulate levels of knowledge. For example, hedges can help temper scientific claims, and boosters can help garner support for claims (Hyland, 1998, 2000). Negotiation words have been found to occur at rates of about .1% to 3% in academic papers (Farrokhi & Emami, 2008; Vazquez & Giner, 2008, 2009). For comparison, they form about 1% of emails (Ho, 2018) and .4% of instant messages, when looking at a subset of five hedges and boosters (Nguyen & Fox Tree, 2025). In speaking, they form about .7% of talk, also looking at a subset of five hedges and boosters (Nguyen & Fox Tree, 2025).

There is good reason to expect negotiation words to affect authority ratings. Hedges can be a sign of decreased knowledgeableness (Hyland, 1998) and boosters of increased knowledgeableness (Hyland, 1998). Indeed, researchers have observed that negotiation words interact with authority – the words that indicated a willingness to negotiate also lowered perceptions of professionalism for high and medium authority speakers (in this case, professors and teaching assistants; Nguyen & Fox Tree, 2025). Additionally, two words (*clearly* and *obviously*) made all speakers seem less friendly and less polite.

There is also good reason to expect negotiation words to affect imagined gender. As part of the socialization process, women are socialized into speaking differently from men (Holmes, 1990; Leaper & Robnett, 2011), sometimes called *the female register* (Crosby & Nyquist, 1977) or *tentative language*. Past research has shown that men and women use hedges at the same rate, but the function differs across gender, with women using more politeness markers than men (Holmes, 1990). Crosby and Nyquist (1977) suggest that the defining characteristic of the female register is non-aggression, rather than politeness, and that men can and do use the female register when it is socially advantageous and acceptable to do so. Leaper and Robnett (2011) suggest that it is not gender but rather the context that drives use of tentative language. In a context where an instructor is talking to a student, it may be more advantageous to use tentative language to soften social distance. Because tentative language is stereotyped as women's language, it is likely that tentative language will be ascribed to women instructors. Accordingly, it is likely that if someone imagines a woman speaker, they will imagine sociolinguistic characteristics of a woman as well. If woman instructors are thought of as more nurturing and non-aggressive, words that imply more negotiating may be more likely to be assumed to be produced by women. In contrast, words that imply less negotiating may be more likely to be assumed to be produced by men.

Current Study

We analyzed open-ended responses collected during a study where imaginary professors, teaching assistants, and classmates were evaluated on dimensions such as knowledgeability, politeness, friendliness, and professionalism as their speech was varied to include words of negotiation (Nguyen & Fox Tree, 2025). Responses were coded for gender and valence (e.g., whether the responses were positive or negative).

Method

Participants

There were 245 participants (mean age 19.8) from a West Coast research university, primarily from suburban areas of California (suburban = 137, urban = 91, rural = 17). Of these, 175 participants identified as women, 52 as men, and 14 as genderqueer or non-binary.

Materials and Procedure

Materials came from a study of how authority influences the interpretation of negotiation words (Nguyen & Fox Tree, 2025). Participants saw constructed dialogues with a student asking a question about fMRI and either a classmate (same level of authority), teaching assistant (medium authority), or professor (high authority) responding (adapted from *How FMRI works*, The Open University 2024). We chose fMRI as a psychological topic that our students would find challenging and therefore might ask about. The constructed dialogues looked like snippets of conversation on a social media platform typically used in academic settings, Discord. Importantly, all speakers were presented with their titles (Student, TA, or Professor) and were not given a gender or race. An example of the stimuli in the professor condition follows, with the location of the inserted word (or no word in the unmodified condition) indicated:

3) Student: I have often wondered about fMRI technology and other kinds of black box tech, like airport scanners or x ray machines. What is fMRI technology and how does it work?
   Professor: Functional magnetic resonance imaging, or FMRI, [inserted word location] works by detecting the changes in blood oxygenation and flow that occur in response to neural activity – when a brain area is more active it consumes more oxygen and to meet this increased demand blood flow increases to the active area.

Each participant saw 12 constructed dialogues, one for each negotiation word (*absolutely, basically, certainly, clearly, kinda, kind of, obviously, partially, sorta, sort of, totally*) plus the unmodified dialogue. The same dialogue in (3) above was used for all stimuli. Thus, all participants were exposed to each negotiation word in the same environment. Authority level (professor, teaching assistant, classmate) was a between-participants variable. About one-third of the participants answered questions for each level.

Participants judged the responses on four social dimensions: how knowledgeable, friendly, polite, and professional the speaker was assumed to be (Nguyen & Fox Tree, 2025). Participants were also asked to describe their impressions of the student and the addressee (professor, teaching assistant, or classmate). They were also asked if they had assigned either speaker a gender, and if so, which (options were *male, female, nonbinary/genderqueer* or *prefer not to say*); if there was anything else they'd like to describe about the speakers; and last, if anything had influenced their responses.

Coding

Open-ended responses for opinions on the speakers were coded for valence: Responses were coded for whether they were positive, negative, mixed, or neutral towards the speaker of the utterance. For example, the following response was coded as positive:

4) The professor seems knowledgeable about the function for fMRI. The professor describes in detail the function of it and how it works.

And the following response was coded as negative:

5) The professor seems friendly, but it doesn't look look [sic] like they looked over their message before sending it.

Mixed responses fell somewhere between the two, and neutral responses were responses that expressed no opinion. Irrelevant responses were coded as *not possible to code*.

Results

We first discuss the gender analyses, and then the valence analyses.

Gender

In the Psychology Department in which this experiment was run, and at the time the study was run, 65% of the faculty were female, and 67% of the graduate students were female.

Professor

In contrast to this weightedness towards female in the department, in the unmodified condition participants assigned the professor the gender *male* most often (52%), followed by *prefer not to say* (24%), *nonbinary* (18%), and *female* (6%); see Table 1. Table 1 displays the number of participants who selected each gender for each negotiation word, as well as for the unmodified condition. Here and in other similar tables, after the unmodified condition, words are listed alphabetically. In addition, here and in other similar tables the rows do not add up to the same number when some participants chose not to answer the question. Looking only at *male* and *female* responses, the assignment of *male* was made 90% of the time; see Table 2. For the sentences that contained the negotiation words, participants also overwhelmingly assigned the gender *male* to the professor, 59% to 91% of the time; see Table 2.

With respect to differences across word choices, no clear pattern emerged between the words that implied negotiation (hedges) and those that did not (boosters). Looking only at *male* and *female* responses, the least *male* were boosters (*absolutely* and *totally*, both 59% *male*; see Table 2) followed by a group that were all hedges except for *certainly* (*partially*, *basically*, *certainly*, *sorta*, *sort of*, *kinda*, and *kind of*; words were between 73% and 87% *male* and are presented ordered from lowest to highest in the list presented here in text). The most *male*, like the least *male*, were also boosters (*clearly* and *obviously*, 88% and 91% *male*). In previous research, *clearly* and *obviously* were rated overwhelmingly as less polite, less friendly, and less professional (Nguyen & Fox Tree, 2025). Looking only at *female* and *nonbinary* reveals that almost all words fell in the middle range (*clearly*, *certainly*, *sorta*, *obviously*, *basically*, *partially*, *kinda*, *sort of*, *absolutely*, *totally*, from 36% to 64% *female*; words are presented ordered from lowest to highest in the list presented here in text; see Table 3). The exception was *kind of* (31%). *Female* was assigned the least in the unmodified condition (24%).

Notably, assumed gender did not match the language used to describe the professor in the open-ended responses. When asked to describe the professor in the unmodified condition, participants overwhelmingly chose to use responses with no gendered words (e.g., “the professor”). The same was true across the 11 negotiation words – participants rarely chose to use *they*, almost never used *he*, and never used *she*.

Table 1
Professor Assumed Gender by Negotiation Word (Cells Show Number of Participants Selecting that Gender)

Word	Male	Female	Nonbinary	Prefer Not to Say
Unmodified	37	4	13	17
Absolutely	24	17	11	14
Basically	31	9	10	17
Certainly	26	7	11	19
Clearly	35	5	9	16
Kinda	34	7	11	17
Kind of	32	5	11	16
Obviously	42	4	5	14
Partially	29	11	12	18
Sorta	31	7	10	19
Sort of	33	7	11	16
Totally	26	18	10	14

Table 2
Percentage Male Looking Only at Male and Female Across Professors, TAs, and Classmates

Word	Professors	TAs	Classmates
Unmodified	90%	68%	61%
Absolutely	59%	59%	63%
Basically	78%	68%	58%
Certainly	79%	69%	73%
Clearly	88%	88%	91%
Kinda	83%	59%	51%
Kind of	87%	70%	67%
Obviously	91%	90%	95%
Partially	73%	73%	80%

Sorta	82%	63%	80%
Sort of	83%	58%	84%
Totally	59%	51%	73%

Table 3
Percentage Female Looking Only at Female and Nonbinary Across Professors, TAs, and Classmates

Word	Professors	TAs	Classmates
Unmodified	24%	43%	54%
Absolutely	61%	56%	54%
Basically	47%	48%	59%
Certainly	39%	50%	52%
Clearly	36%	30%	42%
Kinda	61%	63%	60%
Kind of	31%	44%	52%
Obviously	44%	31%	38%
Partially	48%	37%	38%
Sorta	39%	52%	33%
Sort of	61%	52%	42%
Totally	64%	64%	58%

Teaching Assistant

More TAs than professors were assigned the role of female. In the unmodified condition, the TA was assigned the gender *male* most often (33%) followed closely by *prefer not to say* (32%), then *nonbinary* (20%), and *female* (15%); see Table 4. Table 4 displays the number of participants who selected each gender for each negotiation word, as well as for the unmodified condition. Looking only at *male* and *female* responses, the assignment of *male* was made 68% of the time; see Table 2 which includes data across professors, TAs, and classmates.

Once again, no clear pattern emerged between the words that implied negotiation (hedges) and those that did not (boosters). Looking only at *male* and *female* responses, the least *male* included hedges and boosters (*totally*, *sort of*, *kinda*, *absolutely*, *sorta*; words ranged from 51% to 63% *male* and are presented here ordered from lowest to highest in the list presented here in text; see Table

2). This was followed by another mixed group (*basically*, *certainly*, *kind of*, *partially*, 68% to 73% *male*). As with professors, the most male were boosters (*clearly* and *obviously*, 88% and 90% *male*). The unmodified condition was more towards the middle than for professors (68%). Looking only at *female* and *nonbinary* reveals that almost all words fell in the middle range (*partially*, *kind of*, *basically*, *certainly*, *sorta*, *sort of*, *absolutely*, *kinda*, *totally*, from 37% to 64% *female*; see Table 3 which includes data across professors, TAs, and classmates). The exceptions were *clearly* and *obviously* (30% and 31% male). Unlike with professors, the TAs' unmodified condition was assigned *female* in the middle range, albeit towards the lower end of the range (43%).

Table 4
TA Assumed Gender by Negotiation Word (Cells Show Number of Participants Selecting that Gender)

Word	Male	Female	Nonbinary	Prefer Not to Say
Unmodified	28	13	17	27
Absolutely	27	19	15	24
Basically	27	13	14	30
Certainly	29	13	13	28
Clearly	43	6	14	20
Kinda	29	20	12	25
Kind of	29	12	15	24
Obviously	46	5	11	19
Partially	27	10	17	28
Sorta	27	16	15	25
Sort of	23	17	16	28
Totally	24	23	13	22

Once again, assumed gender did not match the language used to describe the TAs in the open-ended responses. Like in the case of the professor, in the free-response answers, participants either referred to the speaker with no gendered markers or with the gender-neutral *they*.

Classmate

In the unmodified condition, experimental participants more often chose the response *prefer not to say* (34%), followed by *male* (30%), female (19%), and *nonbinary* (16%); see Table 5. Table 5 displays the number of participants who selected each gender for each negotiation word, as well as for the unmodified condition. Looking only at *male* and *female* responses, the assignment of male was made 61% of the time (see Table 2 which includes data across professors, TAs, and classmates). These results are more similar to the TA results (68%) than the professor results (90%; see Table 2).

Looking only at *male* and *female* responses, the least *male* were hedges (*kinda* and *basically*, 51% and 58% *male*, see Table 2) followed by a group that included hedges and boosters (*absolutely*, *kind of*, *certainly*, *totally*, *partially*, *sorta*, *sort of*; words were between 63% and 84% male and are presented ordered from lowest to highest in the list presented here in text). The most *male*, unlike the *least* male, were boosters (*clearly* and *obviously*, 91% and 95% *male*). Like the TAs, the classmates' unmodified condition was assigned female at the low end of the middle range (61%). Looking only at *female* and *nonbinary* reveals that almost all words fell in the middle range (*obviously*, *partially*, *clearly*, *sort of*, *certainly*, *kind of*, *absolutely*, *totally*, *basically*, *kinda*, from 38% to 60% female; words are presented ordered from lowest to highest in the list presented here in text; see Table 3 which includes data across professors, TAs, and classmates). The exception was *sorta* (33%). Like TAs, the classmates' unmodified condition was assigned *female* in the middle range (54%).

Table 5
Classmate Assumed Gender by Negotiation Word (Cells Show Number of Participants Selecting that Gender)

Word	Male	Female	Nonbinary	Prefer Not to Say
Unmodified	22	14	12	25
Absolutely	26	15	13	21
Basically	26	19	13	21
Certainly	33	12	11	18
Clearly	53	5	7	14
Kinda	22	21	14	22
Kind of	30	15	14	20
Obviously	55	3	5	14
Partially	36	9	15	16
Sorta	31	8	16	23
Sort of	42	8	11	15
Totally	37	14	10	13

As in the other two conditions, assumed gender did not match the language used to describe the classmates in the open-ended responses. When describing the classmate, participants primarily used non-gendered terms, or if a pronoun did appear, they used *they*.

Valence

Open-ended responses were coded for valence according to the scheme in Table 6.

Table 6
Coding Scheme for Valence

Code	Example Participant Response
Positive	"The professor seems knowledgeable about the function for fMRI. The professor describes in detail the function of it and how it works." "friendly and helpful also someone who would be easy to understand"
Neutral	"Completely normal response." "None, he seems like a typical professor answering a question."
Negative	"The professor doesn't seem enthusiastic to answer the question." "boring"
Mixed between positive and negative	"The professor seems to be knowledgable on the topic, but slightly unsure." "It seems like the TA is not the most confident in their answer, but still knows what they're talking about."
Not possible to code	"no change" "Unsure"

Professor

Interrater reliability was moderate across all words for valence, ($\kappa = .627$, $p < .001$). For the unmodified items, coders agreed on 53 cases out of 69 (77%). For the unmodified items where coders agreed on a valence, the professor was perceived as positive 74% of the time. In the disagreement cases (16), coders were split between whether a comment was neutral or positive. Please see Table 7 for counts of valence ratings for each word.

Table 7
Professor Valence by Negotiation Word

Word	κ	Positive	Negative	Mixed	Neutral	Not Possible to Code	Coder Disagreement
Unmodified	.627	39	2	0	9	3	16
Absolutely	.687	35	5	0	7	0	15
Basically	.571	28	4	0	10	0	22
Certainly	.637	35	3	1	5	0	18
Clearly	.748	9	38	4	0	0	12
Kinda	.46	14	15	0	4	1	32
Kind of	.612	18	13	1	6	3	23
Obviously	.685	4	43	2	1	0	13
Partially	.603	27	8	1	7	2	22
Sorta	.657	19	24	1	3	1	19
Sort of	.653	23	15	2	5	0	21
Totally	.277	24	0	0	2	1	38

Valence was most negative for the words *clearly* and *obviously*. In the cases where coders agreed on a valence, 75% of the time a professor used *clearly* and 86% of the time they used *obviously* they were rated negatively; see Table 7. This information is represented as percentage positive in Table 8 where it is displayed across professors, TAs, and classmates. This tracks with previous findings where *clearly* and *obviously* were labeled as less polite and less friendly than the other words (Nguyen & Fox Tree, 2025). For five other words, the valence of the descriptions was more likely to be positive than negative (*partially*, *basically*, *absolutely*, *certainly*, and *totally*, ordered as a percentage positive from lowest to highest in the list presented here in text). Four hedges were closer to the middle on valence (*sorta*, *kinda*, *kind of*, and *sort of*, ordered from lowest to highest).

Table 8
Percent Positive When Coders Agreed on a Valence

Word	Professors	TAs	Classmates
Unmodified	78%	96%	78%
Absolutely	75%	66%	71%
Basically	67%	85%	71%
Certainly	80%	71%	92%
Clearly	18%	18%	27%
Kinda	42%	58%	62%
Kind of	47%	59%	73%
Obviously	8%	12%	7%
Partially	63%	80%	49%
Sorta	40%	45%	58%
Sort of	51%	54%	44%
Totally	92%	73%	64%

Teaching Assistant

For the teaching assistant condition, interrater reliability was moderate using the interpretation from Cohen (1960), or close to moderate if using McHugh (2012)'s interpretation (κ =.584, $p < .001$). For the unmodified items, coders agreed on 50 cases out of 83 (60%). For the unmodified items where coders agreed on a valence, the teaching assistant was perceived as positive 96% of the time. In the disagreement cases (33), coders were split between whether a comment was positive or neutral. Please see Table 9 for counts of valence ratings across each word.

Like with professors, in the cases where coders agreed on a valence, when participants described teaching assistants who used *clearly* and *obviously*, they used negative descriptions, 83% of the time for *clearly* and 84% for *obviously*; see Table 9. This information is represented as percentage positive in Table 8 where it is displayed across professors, TAs, and classmates. For five other words, the valence of the descriptions was more likely to be positive than negative (*absolutely*, *certainly*, *totally*, *partially*, and *basically*, ordered as a percentage positive from lowest to highest in the list presented here in text). Four hedges were closer to the middle on valence (*sorta*, for *sort of*, *kinda*, and *kind of*, ordered from lowest to highest).

Table 9
TA Valence by Negotiation Word

Word	κ	Positive	Negative	Mixed	Neutral	Not Possible to Code	Coder Disagreement
Unmodified	.231	48	0	0	2	0	33
Absolutely	.721	43	19	1	2	1	15
Basically	.615	52	2	1	6	3	17
Certainly	.693	47	14	0	5	0	16
Clearly	.569	11	52	0	0	0	19
Kinda	.52	32	21	0	2	1	28
Kind of	.498	27	16	0	3	0	32
Obviously	.698	8	58	2	1	0	12
Partially	.554	47	7	2	3	0	23
Sorta	.426	23	15	2	11	0	37
Sort of	.409	23	7	2	11	0	39
Totally	.502	37	9	0	5	0	29

Classmate

Overall, the interrater reliability between raters was moderate ($\kappa = .651$, $p < .001$). For the unmodified items, coders agreed on 60 cases out of 72 (83%). For the unmodified items where coders agreed on a valence, the classmate was coded as positive 78% of the time. In cases where coders disagreed (12), coders were split between positive, neutral, and mixed. Please see Table 10 for counts of valence ratings across each word.

Like in the other two conditions, in the cases where coders agreed on a valence, when the speakers used *clearly* and *obviously* participants described them in ways that were coded as negative, 61% of the time for *clearly* and 84% for *obviously*, see Table 10. This information is represented as percentage positive in Table 8 where it is displayed across professors, TAs, and classmates. For five words, the valence of the descriptions were more likely to be positive than negative – four identified above for professors and TAs (*totally*, *absolutely*, *basically*, *certainly*, ordered as a percentage positive from lowest to highest in the list presented here in text) and one different one, *kind of*. Four hedges were closer to the middle on valence – three identified above for professors and TAs (*sort of*, *sorta*, *kinda*) and one different one, *partially*.

Table 10
Classmate Valence by Negotiation Word

Word	κ	Positive	Negative	Mixed	Neutral	Not possible to Code	Coder disagreement
Unmodified	.752	47	2	1	10	0	12
Absolutely	.547	32	9	1	3	0	26
Basically	.700	31	3	0	10	0	13
Certainly	.371	45	2	0	2	0	29
Clearly	.796	18	40	3	5	0	11
Kinda	.509	29	9	4	5	0	30
Kind of	.565	40	8	3	4	0	24
Obviously	.728	5	57	4	2	0	10
Partially	.633	25	11	4	11	0	23
Sorta	.503	26	8	3	8	0	32
Sort of	.607	22	15	3	10	1	25
Totally	.724	36	9	1	10	0	16

Valence and gender

While only two words influenced perceived gender of the speaker, it is possible that there was an association between gender and valence. However, we found no association between assumed gender (male, female, nonbinary) and the valence of the responses for any of the words or for the unmodified condition (all Fisher's exact values > .05).

Discussion

In many settings, people receive communications from others without knowing many details about their communicators (Clark, 1999). In the current study, we looked at social media communications in an academic environment, like one might find on any college campus today (e.g., Discord). Even without specific information about the communicators, it is important to keep in mind that communication does not occur in a vacuum. Participants in communicative exchanges may assume characteristics about their addressees (such as age and gender) even when those characteristics are not provided. We found that assumed gender varied with negotiation words for two words: *Clearly* and *obviously* were overwhelmingly understood to be produced by a male speaker. The other negotiation words did not show a gendered pattern. Further, participant perceptions of the speakers varied based on the negotiation word used in conveying the message.

Using *clearly* and *obviously*, words that are tied to being less polite, less friendly, and less professional, and that are more about telling than negotiating (Nguyen & Fox Tree, under review), affected how participants described the speakers, with participants providing more negative valence descriptions of speakers who used those words compared to speakers who chose other words or no modifier.

This usage may be tied into social understandings around who can be aggressive in language use (Crosby & Nyquist, 1977; Leaper & Robnett, 2011). Participants may have a belief that people (regardless of gender or authority level) should not be rude in the classroom, and they may have drawn on social stereotypes around aggressive and non-aggressive language, as well as context, to assign a gender. Because *clearly* and *obviously* are marked as rude (less polite, less friendly, and less professional), speakers may have used their knowledge about who can socially be rude We note that when participants were asked if anything had influenced their judgments after reading a constructed scenario, they mentioned the words quite often, but never gender, which strongly suggests that they were evaluating the speakers based on associations with the words.

An important finding is that knowledge of speaker characteristics (either given, such as authority level in our study, or imagined, such as gender) affected interpretations of instructional content. Students interpreted speakers' words differently depending on the authority level and gender of the speaker. A *clearly* said by a TA had more negative connotations than a *clearly* said by a classmate, but a *partially* said by a TA had more positive connotations (see Table 8). People also assumed different genders based on words used depending on authority level (Tables 1 through 5). While all words suggested *male* for professors, the words were generally less weighted towards *male* for TAs and classmates (see Table 2).

We found no evidence of an association between valence and assumed gender. Overwhelmingly, participants viewed speakers positively. There are several reasons why this may be the case. First, as Leaper and Robnett (2011) pointed out, discourse context matters for what type of language is acceptable. Participants might have been unwilling to give negative evaluations in a laboratory task. Moreover, in interactions where speakers are in a mock classroom setting and seemingly both speakers are cooperating, observers might start with positive feelings towards the speakers, regardless of gender. Finally, participants did not seem to think about gender when discussing the speaker – most participants used gender neutral pronouns or speaker titles (*professor, TA*, *classmate*).

A generally positive word that was interpreted as quite a bit more positive when written by instructors (professors or teaching assistants) than classmates was *totally*. Others have shown that *totally* is a marker of youth (Beltrama & Cassasanto, 2017), so one possibility is that using *totally* lent instructors a beneficial cachet. *Totally* is an unusual negotiation word in other ways, too. While generally categorized as a booster (Beltrama & Cassasanto, 2017), researchers discovered that it is actually interpreted in ways that are similar to hedges (Nguyen & Fox Tree, 2025). It increased professors' and TAs' ratings of friendliness compared to an unmodified condition, similar to the hedges *kinda*, *sorta*, and *sort of*. At the same time, *totally* might best be thought of as a hedgy booster – professors' and TAs' productions were also rated as being similar to the booster *absolutely*.

Interpretation of these words may affect student evaluations of instructors (SETS; Student Evaluations of Teaching). Here we showed that an instructor's word choices affect how positively or negatively the instructor is viewed. Instructors who avoid texting *clearly* and *obviously* but incorporate *totally* would be predicted to create more positive impressions, which theoretically would translate to higher ratings in SETs. These impressions might be further tweaked based on the instructor's authority; an *absolutely* is better for a professor than a TA, but a *basically* is better for a TA (see Table 8). We did not find a relationship between assumed gender and valence, which means that uses by one gender did not lead to more negative evaluations than another gender. That is, all genders convey negative connotations with *clearly* and positive connotations with *certainly*. A reasonable question is whether any instructor would actually micromanage their word choices, such as on Discord, to promote more positive teaching evaluations. We are skeptical that instructors would do so. However, companies designing AI tutors might take advantage of the information provided here.

While experimental participants assigned gender differently depending on negotiation word, in open-ended responses where they discussed their thoughts about the speaker, participants tended to choose the pronoun *they* or describe the speaker in relational terms ("the professor"). Two explanations are possible here. The first is that participants were deliberate in their discussions of the speaker – they chose to avoid gendering a speaker they did not know. The second is that because participants were prompted to describe the speaker and then ascribe gender, gender was simply not a salient evaluation characteristic initially. However, in the free response that followed after participants were asked to give a gender to the speaker, participants once again reverted to avoiding a gender in their description of the speaker. We therefore conclude that the first possibility is more likely: Participants chose to avoid gendering the speaker.

As a sad side note to the research presented here, we observed that gendered assumptions about instructional faculty have not changed as much as we might have hoped. As demonstrated here, despite being in a department where most of the instructors they encountered were female, participants' default assumption about faculty was that they were male. This suggests that while the diversity of departments is increasing, assumptions about who is a professor have not changed, even among a younger student body. If college students believe that professors are men, this may influence whether women choose to enter academia and higher education.

At the same time, there is evidence that gendered beliefs about education can change. Researchers who compared attitudes towards and assessments of education by student gender found differences depending on which country the student was from (Richter & Zelenkauskaite, 2014). For example, students in different countries felt differently about whether student achievement was treated similarly depending on their gender, with about 71% of students from Ghana responding positively, but only about 55% of students from Germany agreeing (Richter & Zelenkauskaite, 2014). There were also differences in attitudes towards separating learning groups by gender.

Country-level variance in attitudes and assessments shows that changes are possible. Future researchers may want to explore further how these changes arise and what might motivate more equitable beliefs about education.

Future researchers might also be interested in testing how different topics affect online inferences. Richter and Zelenkauskaite (2014) observed that students from different countries had different beliefs about women's and men's ability to understand complex technical information. If participants believe men are more technically inclined, they may be more likely to assume a provider of technical information is male. In our study, we chose a technical psychological topic (how an fMRI works) that our students would find challenging and might ask about on Discord. In the department where our study was conducted, both male and female faculty work with neuroscience tools in their research, and both male and female faculty discuss fMRI in their teaching. It is possible that stereotypes about the technology itself mattered for our participants. Different technologies are associated with different assumptions about gender (with more technical items such as computers being coded as male), so it is possible that fMRI technology is coded as male (Selwyn, 2007). This may have interacted with stereotypes around professorhood. Testing this with a different topic would be valuable.

We began this article by noting that texted words can be misunderstood because of assumptions about sociolinguistic characteristics, such as authority. We then laid out what those assumptions are for a set of negotiation words. We showed that some words were assumed to be more likely to be spoken by men and some by women, and that this differed based on authority (professor, teaching assistant, classmate). We also showed that the words had different valences (some were more positive and some more negative) and that the valences also varied by authority. Online classrooms took off during the COVID-19 pandemic and are growing in popularity. Students form impressions of professors and teaching assistants based on the data they have – the actual exchanges of information that occur. In a world that is increasingly digital, and will become more so over time, understanding how words affect perceptions can empower online speakers.

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