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Is *like* like *like?*: Evaluating the same variant across multiple variables

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Abstract:
We explore the linguistic variant – as opposed to the variable – as the object of sociolinguistic perception. The sociolinguistic principle of accountability, in centering the variable as a choice between variants, implicitly models variation from the perspective of the speaker, who makes that choice. But is it a good model for the perception of sociolinguistic meaning on the part of the listener? This paper reports the results of a matched-guise study designed to test eight distinct functions of the form *like* – as a verb, approximate adverb, discourse particle, etc. – in an attempt to determine whether listeners attach the same social meaning to this variant regardless of the variable it represents, and if so, whether this could be a partial explanation for why the use of *like* is increasing in apparent time in several variables at once. We do not find evidence to support the hypothesis that listeners evaluate the different functions of *like* in the same way. However, our results do offer empirical support for the division of *like* into sociolinguistically salient "vernacular" and non-salient "grammatical" categories. Moreover, we find a consistent pattern in which the more recently a function of *like* entered the speech community, the more salient it is to listeners.

1   Variant vs. variable as the object of analysis

The basic unit of analysis in sociolinguistics is conventionally the linguistic variable, loosely definable as a situation in which "the speaker reaches a decision-point" (Wallenberg 2013: 8) between two or more "socially different but linguistically equivalent ways of doing or saying the same thing" (Chambers and Trudgill 1980: 50). Sociolinguists study the differences in social function between competing variants of the same variable, and the factors that influence a speaker's choice between them. The basic methodological principle that allows these questions to be answered is the principle of accountability (Labov 1972): a variant is studied in relation to the variants it competes with within a particular variable context. For example, we can only explain what factors cause a speaker to produce word-final *-ing* as /ɪn/ by evaluating the relative frequency of /ɪn/ as compared to /ɪŋ/ (and any other covariants) in various contexts; examining the distribution of /ɪn/ divorced from the structure of the variable it instantiates would be methodologically unsound.

The principle of accountability, in centering the variable as a choice between variants, implicitly models variation from the perspective of the speaker, who makes that choice. But is it a good model for the perception of sociolinguistic meaning on the part of the listener? Campbell-Kibler (2011) suggests that it might not be. In a matched-guise study, Campbell-Kibler compares listeners' sociolinguistic evaluations of /ɪn/, /ɪŋ/, and a neutral guise in which it is impossible for the listener to tell which variant is used because it is obscured by a burst of white noise, rendering it inaudible. She finds that the evaluations of /ɪn/ and /ɪŋ/ differ from those of the null guise along *different* social dimensions: even though /ɪn/ and /ɪŋ/ exist as forms competing with each other within a variable context, the social meaning of one is not simply the inverse of the other. In other words, Campbell-Kibler suggests, the variant, not the variable, is the object of sociolinguistic evaluation. In this analysis, sociolinguistic *perception*, unlike sociolinguistic *research*, does not necessarily depend on evaluating a variant against the other variants it competes with.

Labov (1993) proposed a hypothesis he called the Interface Principle: "Members of the speech community evaluate the surface forms of language but not more abstract structural features." For example, the height of the vowel in the word *caught* (a surface realization) might be subject to sociolinguistic evaluation, but whether or

not that phoneme is merged with the phoneme in *cot* (an "abstract structural feature") would not be. Campbell-Kibler's finding echoes this hypothesis. If the variant, rather than the variable, is the object of sociolinguistic evaluation, then the variant is the "surface form", in Labov's phrasing, but perhaps the fact that it *instantiates a particular variable* should be considered an "abstract structural feature".

Dinkin (2016) suggests that the word *like* could be a useful tool for examining the relationship between variables and their variants. *Like* is apparently a single variant that instantiates several different variable functions, competing with different covariants for each (cf. D'Arcy 2007). Many of these variables are undergoing the same change in apparent time toward *like*, at the expense of the other variants that *like* competes with in each variable context. If the variant, not the variable, is what is subject to social evaluation, this may predict that the same evaluation should attach to *like* in multiple distinct variable contexts. If so, such a shared social meaning may be what motivates the otherwise unexplained parallel changes toward *like*.

This paper describes a matched-guise study comparing evaluations of different functions of *like*. The aim of the study is to determine what similarities, if any, exist in the way people evaluate the different functions of the same surface form *like*.

2   A matched-guise study of *like*

Unlike a typical matched-guise study in sociolinguistics, in which the social evaluations of different variants of the same variable are compared, in this study we compare different variable contexts in which the same variant may appear. Evaluations of eight distinct functions of *like* are tested:

1. Verb: *How do you know you**like**it?*

2. Preposition: *You've never done anything**like**that.*

3. Comparative: *It was**like**she was obsessed with them.*

4. Quotative: *She was**like**, "Horseback riding is one of my hobbies!"*

5. CP-initial discourse marker: ***Like**, I guess she had been into them since she was little.*

6. vP-initial discourse particle: *They, **like**, kept it at this stable.*

7. NP-initial discourse particle: *this, **like**, speech she had to give about herself*

8. Approximative adverb: *She always wanted to have**like**a million horse posters.*

These eight functions correspond as closely as possible to the taxonomy of *like* functions put forth by D'Arcy (2007), although D'Arcy appears to describe the "preposition" function (2) as an "adverb". Two relatively rare functions of *like* from D'Arcy's list were excluded from our study for methodological reasons, due to the difficulty of constructing matched guises featuring them: the noun (as in "*He grew up with the**likes**… of all great fighters*"), and the suffix (as in "*I went, '[mumbling]' or something like stroke-**like***"). The discourse particle, treated as a single *like* function in the D'Arcy (2007) taxonomy, is separated into two different representative syntactic contexts, on the grounds that D'Arcy (2008) finds that *like*'s use in these contexts entered the grammar at different times; therefore we distinguish between them in order to test whether the difference in recency leads to a difference in social evaluation.

Our function (3) includes all environments in which *like* covaries with *as if*, as the head of both complement and adjunct clauses (cf. López-Couso and Méndez-Naya 2012). Function (2) includes *like* used in general extenders, such as … *and stuff **like**that* (cf. Denis 2015).

Functions (1–3) are described as "grammatical" (i.e, standard) by D'Arcy (2007); the remaining five are "vernacular".

We acknowledge, of course, that it seems intuitively unlikely that *all* functions of the word *like*[1] would have the same sociolinguistic evaluation. We would find it relatively surprising if, for instance, the verb *like* had the same sociolinguistic meaning as the discourse particle *like*. However, what we aim to do in including a wide range of functions in the study is to take the broadest possible view of the hypothesis that there is at least *some* shared meaning between *some* of the functions. Furthermore, which functions might share evaluation may not be as predictable as it may seem at first glance. For instance, the vernacular functions of *like* (4–8) have been shown to be increasing in apparent time in Toronto English (D'Arcy 2007), which may be expected given their status as vernacular. But one of the "grammatical" functions – the comparative complementizer – has also been found to be increasing in Toronto (Brook 2014). Thus, it is prudent not to exclude some functions from examination simply on the grounds of superficial interpretations of their function. To take Campbell-Kibler's

hypothesis and Labov's Interface Principle maximally seriously, it is desirable to begin with no assumptions about evaluation, and test all functions equally to see where the similarities end.

21 Methodology

Our matched-guise study contains nine guises: eight guises each containing ten instances of a single function of *like*, and no instances of the others; and one control guise containing no instances of the word *like* at all. The guises consist of a story about the speaker's childhood, approximately two minutes long, recorded by a 23-year-old female native speaker of Canadian English. The texts of the nine guises differ as minimally as possible, although some changes in phrasing from one guise to another were unavoidable in order to smoothly accommodate eight different syntactic functions of *like*. For example:

1. Control: *I'm thinking, "How do you know it's your hobby, you've never even done it."*

2. Quotative: *I'm **like**, "How do you know it's your hobby, you've never even done it."*

3. Verb: *I'm thinking, "How do you know you **like** it, you've never even done it."*

The full text and sound clips of the guises can be found in Appendix B.

Each guise script was recorded in full by our speaker. In order to achieve maximum similarity between guises, all experimental stimuli are based on the recording of the control guise, with tokens of *like* from the other recordings edited in (with a small amount of surrounding context if necessary to achieve a seamless transition).

In total there were 79 participants: 55 female and 24 male. They range from 18 to 65 years old, with a mean age of 25.2. All are native English speakers. The majority were undergraduate students at the University of Toronto. Some were paid $5 CAD as compensation and others were given partial course credit.

Participants were instructed that they would hear several stories and be asked to rate their judgments of the speaker of each; they were told that it was possible that they might hear multiple slightly different versions of the same story. Each participant listened to six guises: the control guise, two of the matched *like* guises, and three unrelated fillers. The filler guises also consisted of a short story about a childhood memory, recited by a male speaker; these also differed minimally from each other in terms of, for instance, the use of utterance-final tags. The order of presentation was as follows: filler, control, filler, *like* guise 1, filler, *like* guise 2. The *like* guises were shuffled to ensure that each guise was heard by an approximately equal number of participants, in such a way that no participant heard the same guise twice. After each guise, the participant rated the speaker on the following eight dimensions, on a five-point Likert scale:

1. Friendliness

2. Intelligence

3. Politeness

4. Articulateness

5. Youth

6. Interestingness

7. Confidence

8. Femininity

After the ratings, participants were asked the following question and given the chance to answer in as many words as they choose, or not to answer at all:

1. Is there anything else you want to say about the speaker?

After the second and third guises, they were asked two additional follow-up questions, also optional:

1. You heard a different version of this story earlier. How different was this from that previous version? *(Participants answer on a five-point Likert scale)*

2. If it is different, what's different about it?

Statistical analysis of the eight ratings was done using the ordinal package in R, a free software environment for statistical computing (R Development Core Team 2013). A mixed-effects ordinal logistic regression using the *clmm()* function was used to attempt to predict the rating of each measure. The independent variable is the guise, which was coded with treatment coding with Control as the reference level. Participant is included as a random intercept.

22   Results

Out of all eight *like* guises on eight social dimensions, only four results are significantly different from the control guise at the $p < 0.05$ level.[2]

1. Articulateness:

    a. Pre-NP *like* is rated significantly lower than Control (estimate = –2.08; $p \approx 0.0003$)

    b. Verb *like* is rated significantly higher than Control (estimate = +1.12; $p \approx 0.048$)

2. Confidence:

    a. Pre-NP *like* is rated significantly lower than Control (estimate = –1.45; $p \approx 0.036$)

3. Intelligence:

    a. Pre-NP *like* is rated significantly lower than Control (estimate = –1.87; $p \approx 0.0032$)

These results do not support the hypothesis that different functions of *like* have the same effect on the listener's perception of the speaker. Indeed, only two functions of *like* have any effect at the $p < 0.05$ level at all, and in one social dimension those two *like*s have opposite effects. However, the p-values on the whole are not very small; a Bonferroni correction, to take into account the fact that 64 coefficients were calculated, suggests that only the Articulateness effect for pre-NP *like* is highly reliable. It is possible that with a larger data set – i.e., with more participants in the study – shared evaluations would emerge, but in our data even among non-significant coefficients there is no clear pattern (see results in Appendix A for details). Thus, there is no evidence for the hypothesis that the different functions of *like* have similar social meanings, though also not very strong evidence against it.

However, the results for the NP-initial discourse particle do corroborate previous claims that vernacular *like* functions are associated with lower intelligence or competence ratings in general (Dailey-O'Cain 2000; Hesson & Shellgren 2015); we find it associated with lower articulateness and intelligence. The low confidence rating for NP-initial *like*, if authentic, may be connected to *like*'s discourse function as a hedge, conveying, in Andersen (2001: 256)'s phrasing, something like "'I have something on my mind, but I don't know (exactly) how to put it.'"

23   Discussion of qualitative responses

Participants were given the option to comment on how different the *like* guises were from the control guise, which they heard first. In total, 26 responses (out of a possible 158) commented specifically on the presence of *like* as a difference between guises.[3] Figure 1 shows the number of times for each guise that *like* was explicitly mentioned as a difference.
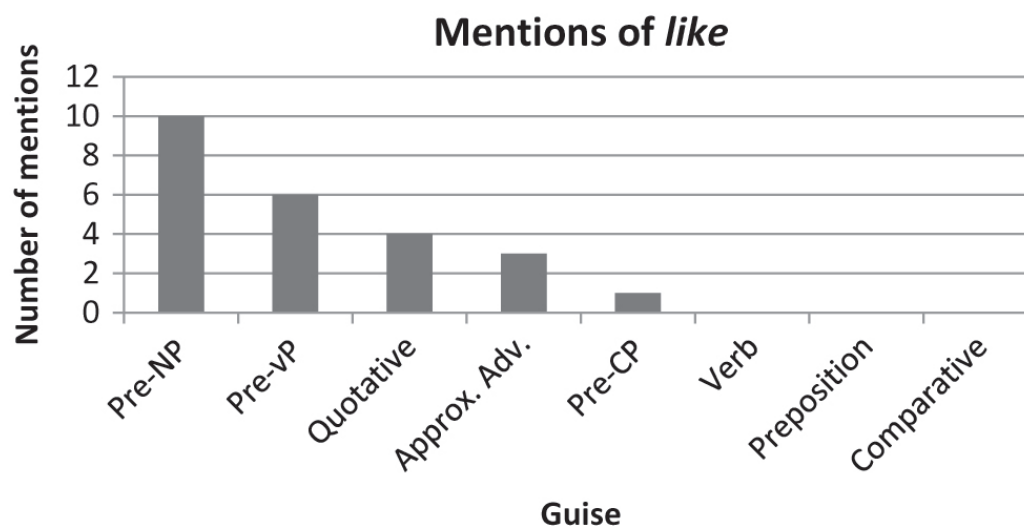
Mentions of *like*

Figure 1: Number of explicit mentions of *like* as a difference between guises.

The five guises which received specific mentions of *like* are the five "vernacular" functions; no participant mentioned *like* in any of the three guises using functions classified by D'Arcy (2007) as "grammatical".

The comments themselves reveal interesting patterns. For example:

1. *Sounds like she says 'like' more often than previous versions.* (Pre-vP)

2. *The speaker kept saying 'like' in their explanation of the story.* (Pre-vP)

3. *Addition of the word 'like'.* (Approximative adverb)

All three comments above were given when the guise in question was heard as the third guise, which means the participants had already heard a second guise containing exactly as many tokens of *like*. In each of these three cases, the second guise had contained one of the "grammatical" functions (Verb, Verb, and Preposition, respectively). It seems that those tokens went unnoticed and it is only these tokens, in their role as performing a vernacular function, that were salient to the listener.

The fact that *like* was only found worthy of comment in its vernacular functions corroborates D'Arcy's classification of *like* functions into "vernacular" and "grammatical" categories; this reflects sociolinguistic reality in that the vernacular functions can attract overt comment in a task calling for sociolinguistic evaluation, while the grammatical functions are sociolinguistically transparent.

Figure 1 also reveals the special salience of the Pre-NP tokens, which received the plurality of direct comments among *like* functions. This is illustrated in the following excerpts from the comments of Respondent #33:

1. *There was a valley girl like at the beginning.* (Guise 2: Approximative adverb)

2. *More likes this time* (Guise 3: Pre-NP)

When the listener heard *like* as an approximative adverb, he noticed it seemingly only once. In the next guise, when he heard it as a pre-NP discourse particle, he perceived it as occurring more often. The comments of Respondent #59 show a similar pattern:

1. *She says "like" all the time. She didn't say it much the first time she told the story.* (Guise 2: Pre-NP)

2. *I'm quite sure this is the exact same version as the first time she told the story. However, quite different from the 2nd time she told the story, in that she never once said "like."* (Guise 3: Verb)

Here, the listener heard *like* in its pre-NP discourse particle function in the second guise, and noticed its prevalence. In the third guise, despite actually hearing the word *like* the same number of times, she claimed it wasn't present. In fact, she perceived this version – containing a "grammatical", not a vernacular, function of *like* – to be no different from the control guise, in which *like* doesn't occur once. The special salience of pre-NP *like* in the qualitative responses mirrors its role in the quantitative responses, where pre-NP was the only *like* guise with a reliably significant effect on evaluations.

In one example, from Respondent #73, the quotative *like* is misremembered as the discourse marker or particle:

1. *The pitch of her voice at the end of the sentence. She has more "like ya know" sounding phrases inserted into her speech.* (Guise 2: Quotative)

This listener is clearly sensitive to the social meaning of *like* to some extent. In addition to noticing (but misidentifying) the *like* tokens, the respondent imagines a difference in sentence-final pitch. Rising sentence-final pitch ("uptalk"), like *like*, has been described as indexing a "valley girl" social category (Tyler 2015). It seems that this listener may have perceived the use of *like*, associated it with its social indexicality, and mentally inserted an additional linguistic feature with the same indexicality. The conflation here of quotative *like* and discourse-particle *like* in this listener's memory is the closest our data gets to providing direct evidence for shared social meaning among the different functions of *like*; this is a fascinating example, but not in itself sufficient to draw conclusions from.

3   Salience mirrors novelty

Using apparent-time data, D'Arcy (2008) argues that *like* as a discourse marker and discourse particle developed in Canadian English in the order shown in Table 1 (see D'Arcy 2008: 11).

Table 1: Order of entry into Canadian English, by syntactic position.

Syntactic position	Approximate time of entry into Canadian English	
CP (matrix)	*pre-1930s*	*1*
DP	1940s	(3)
CP (subordinate)	*1940s–1950s*	
DegP	1950s	
vP	1950s–1960s	6
TP	*1960s–1970s*	
NP	1970s–1980s	10
AP	1980s–1990s	

[1] Italics indicates a discourse marker; no italics indicates a discourse particle.

It first entered the grammar as a discourse marker in the left periphery of the matrix CP, and over apparent time it proceeded to penetrate deeper into the syntactic structure of the sentence: first spreading to the left side of functional categories such as DP and DegP, and eventually entering the lexical categories NP and finally A(djective)P. Three of these eight environments were included as guises in our study: CP (matrix), vP, and NP. These three guises elicited comments about the use of *like* from, respectively, one, six, and ten participants (indicated in the rightmost column in Table 1). In other words, syntactic positions in which discourse *like* is more recent were more likely to be commented upon. Thus the salience of any given position of discourse *like* mirrors its novelty in the grammar.

Moreover, although we did not include DP-initial discourse marker *like* as a guise in this study, the approximative adverb can appear in a similar syntactic position to the DP-initial discourse marker: for example, the *like* in *She always wanted to have**like**a million horse posters* can be interpreted as either an approximate adverb with scope over the quantity *a million* or a DP-initial discourse particle with scope over the DP *a million horse posters*. If we use the DP-initial approximative adverb as a proxy for the DP-initial discourse particle, it fits the trend of salience mirroring novelty: with three mentions, it falls between the CP-initial and vP-initial positions.

This trend is also corroborated by comments from participants:

Participant #50:

1. *Difference feels less strong than difference between other two stories, but in this case delivery feels more confident, more personal*. (Guise 2: Pre-CP)

2. *Also noticed more use of 'like' vs. previous versions*. (Guise 3: Approximative adverb)

Participant #58:

1. *Again, the small changes I noticed were very subtle. The main thing to come to mind is simply her tone*. (Guise 2: Pre-CP)

2. *Her multiple uses of the term 'like' made her sound much younger and more friendly/casual, but not necessarily less intelligent.* (Guise 3: Pre-NP)

In both cases, the participants were exposed to vernacular uses in both guises. However, the guise that garnered explicit comment on *like* was only the more recent of the two.

4   Conclusion and future directions

The results of the present study do not appear to support the hypothesis that different functions of *like* have the same social evaluation. In other words, it may not be the case that *like* is simply one variant with the same social meaning across multiple variables. However, they do support D'Arcy (2007)'s division of *like* into "vernacular" and "grammatical" categories – these categories mirror the sociolinguistic reality. The vernacular functions are explicitly noticed and commented upon by listeners, while the grammatical functions are transparent. Our data suggests that the more recently a function of *like* entered the speech community, the more likely it is to receive explicit comment from listeners, and the newest of those is the only one to demonstrate a reliably significant effect on evaluations.

There is also no support for the hypothesis that the confluence of increases in apparent time for multiple functions of *like* is due to shared evaluation. The comparative complementizer, for instance, is increasing along with other functions of *like* (Brook 2014), but this function is classified as "grammatical", and not sociolinguistically evaluated; this means the set of parallel changes toward *like* isn't even confined to the vernacular functions of *like*. It remains unclear what motivates the shared changes. However, Dinkin (2016) conjectures that many functions of *like* share a pragmatic function of indicating ambivalence between metaphorical and literal interpretations, and that it may be this function, shared by both comparative complementizer *like* and the vernacular *like*s, that is targeted specifically for change. Empirical investigation of this hypothesis, however, will have to wait for a future study.

Given the order of entry of various functions of *like* into the discourse, and the finding that the salience of a function mirrors its novelty, it is expected that speakers of different ages would react differently to different functions. Recall that our participant sample was considerably unbalanced in terms of age, with the mean age being just 25.2. Involving more older speakers, and testing responses as a function of age, could strengthen the case that the recency of entry into the grammar has an effect on a function's salience.

Though the second and third guises were both compared to the control guise, the effect of order of presentation *between* second and third has not yet been tested. It is conceivable that evaluations of guises are affected by whether they are heard closer to the control guise (with a filler in between) or further away. A more complete analysis of the data would also examine the qualitative comments other than those that explicitly mention *like*, to get a sense of the full range of differences that listeners perceive.

Another remaining question concerns how far it is possible to extend Campbell-Kibler (2011)'s attribution of social meaning to the variant. Although different variants of the same variable may have independent social meanings, does the social meaning itself still depend upon the fact that the variant is an exponent of a particular variable? Are lexical, grammatical, and phonological variants treated differently in this respect?

Finally, although our results support the classification of *like*s as "vernacular" and "grammatical", they suggest that the distinction between those two classes may be gradient, rather than absolute. If vernacular functions of *like* that have been present in the language for a longer period of time become less salient to listeners and less susceptible to sociolinguistic evaluation, that suggests that they may eventually move into the "grammatical" class. Indeed, there is evidence that this may have already happened in at least one case – as D'Arcy (2007) notes, the use of *like* as a conjunction covarying with *as* attracted widespread prescriptive condemnation in the mid–20th century, but that does not stop D'Arcy from classifying this function as "grammatical" now. Time will tell if other vernacular functions of *like*, such as the CP-initial discourse marker, are likely to follow this path as well.

Notes

[1]Even describing them all as "functions of the word *like*" is potentially fraught, inasmuch as some of them may be distinct but homophonous morphemes. Drager (2011) even argues that different functions of *like* may be systematically different in the fine details of pronunciation, though Tamminga (2014) finds no such differences beyond what would be predicted by likely prosodic context.

[2]The complete results for each guise are given in Appendix A.

[3]Eight more responses quoted phrases containing *like*, but didn't comment on the use of *like* itself; these are distributed about evenly between the eight guises, with no guise receiving more than two.

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Appendix A

Table 2: Mixed effects ordinal logistic regression model for articulateness.

Random effects			
Groups	Name	Variance	Std. Dev.
Participant	(Intercept)	3.79	1.947
Number of objects: 207; Participants: 79			
Fixed effects			
	Estimate	Std. Error	z Value	*p* Value
(Intercept)				
Guise (reference level is Control: No *like*)				
Verb	**1.1194**	**0.5650**	**1.981**	**0.047547**
Preposition	0.9254	0.5461	1.695	0.090120
Comparative	0.3433	0.5525	0.621	0.534290
Pre-CP	0.3015	0.5336	0.565	0.572054
Quotative	−0.1827	0.5514	−0.331	0.740461
Pre-vP	−0.1690	0.5655	−0.299	0.765070
Approximative	−0.8067	0.5636	−1.431	0.152320
Pre-NP	**−2.0751**	**0.5746**	**−3.611**	**0.000305**
Thresholds	Estimate	Std. Error	z Value	
1|2	−5.3172	0.5981	−8.890	
2|3	−2.0731	0.3613	−5.737	
3|4	1.0212	0.3327	3.069	
4|5	4.0425	0.4334	9.328	

Table 3: Mixed effects ordinal logistic regression model for confidence.

Random effects

Groups	Name	Variance	Std. Dev.	
Participant	(Intercept)	10.77	3.282	
Number of objects: 207; Participants: 79				
Fixed effects				
	Estimate	Std. Error	z Value	*p* Value
(Intercept)				
Guise (reference level is control: No *like*)				
Preposition	1.22834	0.69102	1.778	0.0755
Comparative	0.58772	0.67934	0.865	0.3870
Verb	0.30477	0.70616	0.432	0.6660
Approximative	−0.06726	0.65535	−0.103	0.9183
Pre-CP	−0.42468	0.65725	−0.646	0.5182
Pre-vP	−0.59649	0.69296	−0.861	0.3894
Quotative	−0.64455	0.67683	−0.952	0.3409
Pre-NP	**-1.45151**	**0.69047**	**−2.102**	**0.0355**
Thresholds	Estimate	Std. Error	z Value	
2|3	−6.8565	0.9031	−7.592	
3|4	−3.3087	0.5933	−5.577	
4|5	2.0308	0.5268	3.855	

Table 4: Mixed effects ordinal logistic regression model for Intelligence.

Random effects

Groups	Name	Variance	Std. Dev.	
Participant	(Intercept)	4.438	2.107	
Number of objects: 207; Participants: 79				
Fixed effects				
	Estimate	Std. Error	z Value	*p* Value
(Intercept)				
Guise (reference level is control: No *like*)				
Verb	1.1036	0.6020	1.833	0.06676
Comparative	0.5889	0.6078	0.969	0.33263
Pre-CP	0.3655	0.5710	0.640	0.52216
Quotative	0.1679	0.5793	0.290	0.77197
Preposition	0.0300	0.6142	0.049	0.96104
Approximative	−0.3221	0.5912	−0.545	0.58592
Pre-vP	−0.6699	0.5668	−1.182	0.23720
Pre-NP	**−1.8652**	**0.6329**	**−2.947**	**0.00321**
Thresholds	Estimate	Std. Error	z Value	
1|2	−6.8238	0.9621	−7.093	
2|3	−1.4351	0.3757	−3.819	
3|4	2.1060	0.3953	5.327	
4|5	6.4822	0.8744	7.413	

Table 5: Mixed effects ordinal logistic regression model for femininity.

Random effects

Groups	Name	Variance	Std. Dev.	
Participant	(Intercept)	17.52	4.186	
Number of objects: 207; Participants: 79				
Fixed effects				
	Estimate	Std. Error	z Value	*p* Value
(Intercept)				
Guise (reference level is control: No *like*)				
Pre-NP	1.1188	0.7005	1.597	0.110
Comparative	1.0379	0.7184	1.445	0.149
Verb	−0.1505	0.6975	−0.216	0.829
Quotative	−0.1904	0.6535	−0.291	0.771
Pre-vP	−0.1927	0.6578	−0.293	0.770

Approximative	−0.2119	0.6740	−0.314	0.753
Preposition	−0.2146	0.6959	−0.308	0.758
Pre-CP	−0.4650	0.6759	−0.688	0.492
Thresholds	Estimate	Std. Error	z Value	
2|3	6.2903	0.8868	−7.093	
3|4	−0.8121	0.6136	−1.323	
4|5	4.3302	0.7724	5.606	

Table 6: Mixed effects ordinal logistic regression model for friendliness.

Random effects				
Groups	Name	Variance	Std. Dev.	
Participant	(Intercept)	8.998	3	
Number of objects: 207; Participants: 79				
Fixed effects				
	Estimate	Std. Error	z Value	*p* Value
(Intercept)				
Guise (reference level is Control: No *like*)				
Pre-vP	0.06151	0.59181	0.104	0.917
Pre-CP	0.02678	0.57081	0.047	0.963
Comparative	−0.09612	0.64446	−0.149	0.881
Verb	−0.12119	0.59506	−0.204	0.839
Approximative	−0.13371	0.60097	−0.222	0.824
Quotative	−0.59611	0.58732	−1.015	0.310
Pre-NP	−0.79807	0.60124	−1.327	0.184
Preposition	−0.86227	0.60930	−1.415	0.157
Thresholds	Estimate	Std. Error	z Value	
1|2	−4.2677	0.5914	−7.216	
2|3	0.3291	0.4461	0.738	
3|4	2.8042	0.5037	5.567	
4|5	5.5611	0.6977	7.970	

Table 7: Mixed effects ordinal logistic regression model for interestingness.

Random effects				
Groups	Name	Variance	Std. Dev.	
Participant	(Intercept)	9.756	3.124	
Number of objects: 207; Participants: 79				
Fixed effects				
	Estimate	Std. Error	z Value	*p* Value
(Intercept)				
Guise (reference level is Control: No *like*)				
Verb	1.1508	0.6082	1.892	0.0585
Quotative	0.9705	0.6123	1.585	0.1129
Comparative	0.6187	0.6128	1.010	0.3126
Pre-CP	0.5710	0.5839	0.978	0.3281
Approximative	0.4434	0.5784	0.767	0.4434
Preposition	0.2297	0.6161	0.373	0.7092
Pre-vP	−0.5559	0.5944	−0.935	0.3496
Pre-NP	−0.6985	0.6219	−1.123	0.2614
Thresholds	Estimate	Std. Error	z Value	
1|2	−5.4645	0.7259	−7.528	
2|3	−1.6260	0.4773	−3.407	
3|4	2.2280	0.4936	4.514	
4|5	6.5076	0.7662	8.494	

Table 8: Mixed effects ordinal logistic regression model for politeness.

Random effects				

Groups	Name	Variance	Std. Dev.	
Participant	(Intercept)	10.05	3.17	
Number of objects: 207; Participants: 79				
Fixed effects				
	Estimate	Std. Error	z Value	*p* Value
(Intercept)				
Guise (reference level is Control: No *like*)				
Pre-CP	1.0002	0.6042	1.655	0.0978
Verb	0.7984	0.6314	1.265	0.2060
Preposition	0.7753	0.6472	1.198	0.2309
Approximative	0.5550	0.6401	0.867	0.3859
Pre-NP	0.4773	0.6094	0.783	0.4335
Quotative	0.2893	0.6329	0.457	0.6476
Comparative	0.1934	0.6513	0.297	0.7665
Pre-vP	−0.3520	0.6287	−0.560	0.5755
Thresholds	Estimate	Std. Error	z Value	
1|2	−2.9108	0.5224	−5.572	
2|3	1.9082	0.4700	4.060	
3|4	5.2179	0.5678	9.189	
4|5	8.8807	1.0128	8.768	

Appendix B

1. Control

Audio 1 1Control.wav

When I was little, in grade five, there was this girl in my class who would always talk about how much she loved horses. I guess she had been into them since she was little, she was obsessed with them, she always wanted to have all these horse posters up in her room, horses on her clothes, that kind of thing – horse everything. In this speech she had to give about herself, she even said horseback riding was one of her hobbies, before she had ever even been horseback riding. It was so stupid, I'm thinking, how do you know it's your hobby, you've never even done it. But anyway her parents always spoiled her, so I guess they thought "Oh, she'd probably love to have a real horse, let's get her one." So they got her a horse, a real horse, for her birthday, it must have cost them $2000. They kept it at this stable about an hour outside of the city and then they'd take her to go visit it once a week. So she was always talking about it – "Oh I'm going to see my horse this weekend, I can't wait, I love my horse so much," that kind of thing. She couldn't stop bragging about it. But I guess one time my friend Angie spent the weekend at her house for this sleepover, and they went to see the horse, with some other people. And Angie told me after, she said it seemed as if the horse really didn't pay attention to Lily – this girl's name was Lily. It really loved apples and stuff, so when people fed it apples it would go crazy and make these happy sounds and swish its tail around and stuff. But Angie said, "When Lily fed it apples it wouldn't even eat them." I guess it would kind of just drop them on the ground as if it didn't even want them. And it would let everyone else pet it, it was a really friendly horse, but when Lily would pet it, it would just kind of wander away. But Angie said Lily didn't even notice, she was just too busy talking about how much she loves horses and how she's going to have so many horses one day when she grows up and stuff. So yeah. It's kind of funny but kind of sad. But Lily was kind of a snob, we weren't even really friends anyway.

2. Verb

Audio 2 2Verb.wav

When I was in grade five there was this girl in my class who would always talk about how much she **liked** horses. I guess she had **liked** them since she was little, she was obsessed with them, she always wanted to have horse posters up in her room, horses on her clothes, horse everything. She even said horseback riding was one of her hobbies in this speech we had to give about ourselves, before she had ever even been horseback riding. It was so annoying, how do you even know you **like** it, you've never done it? But anyway so her parents thought

"Oh, she'd probably **like** to have a real horse, let's get her one." So they got her a horse, a real horse, for her birthday. They kept it at a stable out in the country and then they'd take her to go visit it and stuff. So she was always talking about it – "Oh I'm going to see my horse this weekend, I can't wait, I **like** my horse so much." But I guess one time my friend Angie slept over at her house and went with her to see the horse. And she told me that it seemed that the horse really didn't **like** Lil– Lily, this girl's name was Lily. It really **liked** apples, so when people fed it apples it would go crazy and make these happy sounds and swish its tail around and stuff. But when Lily fed it apples it would not even eat them. It would kind of just drop them on the ground as if it didn't even **like** them. And it would let everyone pet it, it was really friendly, but when Lily would pet it, it would just kind of wander away. But Angie said Lily didn't even notice, she was just too busy talking about how much she **likes** horses and how she's going to have so many horses when she grows up and stuff. So yeah. It's kind of funny but kind of sad. But Lily was kind of snobby, I didn't **like** her that much anyway.

3. Preposition

Audio 3 9Preposition.wav

When I was little, in grade five, there was this girl in my class who would always talk about how much she loved horses. I guess she had been into them since she was little, she was obsessed with them, she always wanted to have all these horse posters up in her room, horses on her clothes, things **like** that, everything looked **like** horses. In this speech she had to give about herself, she even said horseback riding was one of her hobbies, before she had ever even been horseback riding. She sounded **like** such an idiot, I'm thinking, how do you know it's your hobby, you've never done anything **like** that. But anyway her parents always treated her **like** a princess, so they thought "Oh, she'd probably love to have a real horse, let's get her one." So they got her a horse, a real horse, for her birthday, it must have cost them $2000. They kept it at this stable about an hour outside of the city and then they'd take her to go visit it once a week. So she was always talking about it – "Oh I'm going to see my horse this weekend, I can't wait, I love my horse so much," stuff **like** that. She couldn't stop bragging about it. But I guess one time my friend Angie spent the weekend at her house for this sleepover, and they went to see the horse, with some other people. And Angie told me after, she said it seemed as if the horse really didn't pay attention to Lily – this girl's name was Lily. It really loved treats **like** apples and stuff, so when people fed it apples it would go crazy and make these happy sounds and swish its tail around and stuff **like** that. But Angie said, "When Lily fed it apples it wouldn't even eat them." I guess it would kind of just drop them on the ground as if it didn't even want them. And it would let everyone else pet it, it seemed **like** a really friendly horse, but when Lily would pet it, it would just kind of wander away. But Angie said Lily didn't even notice, she was just too busy talking about how much she loves horses and how she's going to have so many horses one day when she grows up and stuff. So yeah. It's kind of funny but kind of sad. But Lily was kind always acting **like** a snob, we weren't even really friends anyway.

4. Comparative complementizer

Audio 4 7Comparative.wav

When I was little, in grade five, there was this girl in my class who would always talk about how much she loved horses. I guess she had been into them since she was little, it was **like** she was obsessed with them, she always wanted to have all these horse posters up in her room, horses on her clothes, that kind of thing – horse everything. In this speech she had to give about herself, she even acted **like** horseback riding was one of her hobbies, before she had ever even been horseback riding. It was so stupid, I feel **like** you can't know it's your hobby if you've never even done it. But anyway her parents always spoiled her, so I guess they felt **like** she'd probably love to have a real horse, so they thought "let's get her one." So they got her a horse, a real horse, for her birthday, it must have cost them $2000. They kept it at this stable about an hour outside of the city and then they'd take her to go visit it once a week. So she was always talking about it – "Oh I'm going to see my horse this weekend, I can't wait, I love my horse so much," that kind of thing. It was **like** she couldn't stop bragging about it. But I guess one time my friend Angie spent the weekend at her house for this sleepover, and they went to see the horse, with some other people. And Angie told me after, she said it seemed **like** the horse really didn't pay attention to Lily – this girl's name was Lily. It really loved apples and stuff, so when people fed it apples it would go crazy and make these happy sounds and swish its tail around and stuff. But Angie said, "When Lily fed it apples it wouldn't even eat them." I guess it would kind of just drop them on the ground **like** it didn't even want them. And it would let everyone else pet it, it was a really friendly horse, but when Lily would pet

it, it would just kind of wander away **like** it didn't care. But Angie said Lily didn't even notice, it seemed **like** she was just too busy talking about how much she loves horses and how she's going to have so many horses one day when she grows up and stuff. So yeah. It's kind of funny but kind of sad. But I feel **like** Lily was kind of a snob, we weren't even really friends anyway.

5.   Quotative

Audio 5 3Quotative.wav

   When I was in grade five there was this girl in my class who was always **like** "Oh I love horses!" I guess she had been into them since she was little, she was obsessed with them, she always wanted to have horse posters up in her room, horses on her clothes, horse everything. In this speech she had to give about herself, she was **like** "horseback riding is one of my hobbies", before she had ever even been horseback riding. It was so annoying, I was **like**, "how do you even know it's your hobby, you've never done it?" But anyway so her parents were **like** "Oh, she'd probably want to have a real horse, let's get her one." So they got her a horse, a real horse, for her birthday. They kept it at a stable out in the country and then they'd take her to go visit it and stuff. So she was always talking about it, she'd be **like** "Oh I'm going to see my horse this weekend, I can't wait." She was **like**, "I love my horse so much." But I guess one time my friend Angie slept over at her house and went with her to see the horse. And Angie told me after, she was **like** "the horse really doesn't pay attention to Lil– Lily", this girl's name was Lily. It really loved apples, so when people fed it apples it would go crazy and make these happy sounds and swish its tail around and stuff. But Angie was **like**, "When Lily fed it apples it would not even eat them." It would kind of just drop them on the ground as if it didn't even want them. And it would let everyone pet it, it was really friendly, but when Lily would pet it, it would just kind of wander away. But Angie was **like** "Lily didn't even notice, she was just too busy talking about how much she loves horses and how she's going to have so many horses when she grows up and stuff." So yeah. I was **like**, "It's kind of funny but kind of sad." But Lily was kind of snobby, we weren't even friends anyway.

6.   Pre-CP discourse marker

Audio 6 4PreCP.wav

   When I was in grade five there was this girl in my class who would always talk about how much she loved horses. **Like** I guess she had been into them since she was little, she was obsessed with them, **like** she always wanted to have horse posters up in her room, horses on her clothes, horse everything. She even said horseback riding was one of her hobbies in this speech we had to give about ourselves, before she had ever even been horseback riding. It was so annoying, **like** how do you even know it's your hobby, you've never done it. But anyway so her parents thought "Oh, she'd probably want to have a real horse, let's get her one." So they got her a horse, like a real horse, for her birthday. **Like** they kept it at a stable out in the country and then they'd take her to go visit it and stuff. So **like** she was always talking about it, "Oh I'm going to see my horse this weekend, I can't wait, I love my horse so much." But I guess one time my friend Angie slept over at her house and went with her to see the horse. And she told me that **like** it seemed that the horse really didn't pay attention to Lil– Lily, this girl's name was Lily. **Like** it really loved apples, so when people fed it apples it would go crazy and make these happy sounds and swish its tail around and stuff. But when Lily fed it apples it would not even eat them. **Like** it would kind of just drop them on the ground as if it didn't even want them. And it would let everyone pet it, it was really friendly, but when Lily would pet it, it would just kind of wander away. But Angie said **like** Lily didn't even notice, she was just too busy talking about how much she loves horses and how she's going to have so many horses when she grows up and stuff. So yeah. It's kind of funny but kind of sad. But **like** Lily was kind of snobby, we weren't even friends anyway.

7.   Pre-vP discourse particle

Audio 7 6PrevP.wav

   When I was little, in grade five, there was this girl in my class who would always **like** talk about how much she loved horses. I guess she had been into them since she was little, she was obsessed with them, she always

like wanted to have all these horse posters up in her room, horses on her clothes, that kind of thing – horse everything. In this speech she had to give about herself, she even said horseback riding was one of her hobbies, before she had ever even been horseback riding. It was so stupid, I'm thinking, how do you know it's your hobby, you've never even done it. But anyway her parents always spoiled her, so I guess they thought "Oh, she'd probably love to have a real horse, let's get her one." So they got her a horse, a real horse, for her birthday, it must have cost them $2000. They **like** kept it at this stable about an hour outside of the city and then they'd **like** take her to go visit it once a week. So she was always talking about it – "Oh I'm going to see my horse this weekend, I can't wait, I love my horse so much," that kind of thing. She couldn't stop bragging about it. But I guess one time my friend Angie **like** spent the weekend at her house for this sleepover, and they went to see the horse, with some other people. And Angie told me after, she said it seemed as if the horse really didn't **like** pay attention to Lily – this girl's name was Lily. It really loved apples and stuff, so when people fed it apples it would go crazy and **like** make these happy sounds and swish its tail around and stuff. But Angie said, "When Lily fed it apples it wouldn't even eat them." I guess it would just **like** drop them on the ground as if it didn't even want them. And it would let everyone else pet it, it was a really friendly horse, but when Lily would pet it, it would just **like** wander away. But Angie said Lily didn't even notice, she was just too busy talking about how much she loves horses and how she's going to **like** have so many horses one day when she grows up and stuff. So yeah. It's kind of funny but kind of sad. But Lily was kind of a snob, we weren't even really friends anyway.

8. Pre-NP discourse particle

Audio 8 5PreNP.wav

When I was little, in grade five, there was this **like** girl in my class who would always talk about how much she loved horses. I guess she had been into them since she was little, she was obsessed with them, she always wanted to have all these **like** horse posters up in her room, horses on her clothes, that kind of thing – horse everything. In this **like** speech she had to give about herself, she even said horseback riding was one of her hobbies, before she had ever even been horseback riding. It was so stupid, I'm thinking, how do you know it's your hobby, you've never even done it. But anyway her parents always spoiled her, so I guess they thought "Oh, she'd probably love to have a real horse, let's get her one." So they got her a horse, a **like** real horse, for her birthday, it must have cost them $2000. They kept it at this **like** stable about an hour outside of the city and then they'd take her to go visit it once a week. So she was always talking about it – "Oh I'm going to see my horse this weekend, I can't wait, I love my horse so much," that kind of thing. She couldn't stop bragging about it. But I guess one time my friend Angie spent the weekend at her house for this **like** sleepover, and they went to see the horse, with some **like** other people. And Angie told me after, she said it seemed as if the horse really didn't pay attention to Lily – this girl's name was Lily. It really loved **like** apples and stuff, so when people fed it apples it would go crazy and make these **like** happy sounds and swish its tail around and stuff. But Angie said, "When Lily fed it apples it wouldn't even eat them." I guess it would kind of just drop them on the ground as if it didn't even want them. And it would let everyone else pet it, it was a really friendly horse, but when Lily would pet it, it would just kind of wander away. But Angie said Lily didn't even notice, she was just too busy talking about how much she loves horses and how she's going to have so many horses one day, when she grows up and stuff. So yeah. It's kind of funny but kind of sad. But Lily was kind of a snob, we weren't the **like** best of friends anyway.

9. Approximative adverb

Audio 9 8Approximative.wav

When I was little, in **like** grade five, there was this girl in my class who would always talk about how much she loved horses. I guess she had been into them since she was **like** three, she was obsessed with them, she always wanted to have **like** a million horse posters up in her room, horses on her clothes, that kind of thing – horse everything. In this speech she had to give about herself, she even said horseback riding was one of her hobbies, before she had ever even been horseback riding. It was so stupid, how do you know it's your hobby, you've never even done it. But anyway her parents always spoiled her, so I guess they thought "Oh, she'd probably love to have a real horse, let's get her one." So they got her a horse, a real horse, for her birthday, it must have cost them **like** $2000. They kept it at this stable **like** an hour outside the city, and then they'd take her to go visit it **like** once a week. So she was always talking about it – "Oh I'm going to see my horse this weekend,

I can't wait, I love my horse so much," that kind of thing. She'd brag about it **like** every five minutes But I guess one time my friend Angie spent the weekend at her house for this sleepover, and they went to see the horse, with **like** two or three other people. And Angie told me after, she said it seemed as if the horse really didn't pay attention to Lily – this girl's name was Lily. It really loved apples and stuff, so when people fed it apples it would go crazy and make these happy sounds and swish its tail around and stuff. But Angie said, "When Lily fed it apples it wouldn't even eat them." I guess it would kind of just drop them on the ground as if it didn't even want them. And it would let everyone else pet it, it was a really friendly horse, but when Lily would pet it, it would just kind of wander away. But Angie said Lily didn't even notice, she was just too busy talking about how much she loves horses and how she's going to have **like** 50 horses one day when she grows up and stuff. So yeah. It's kind of funny but kind of sad. But Lily was kind of a snob, we were only friends for **like** a month anyway.