

First- and second-person pronouns in self-talk: On the semantics of talking to myself

Self-talk has been well-researched in psychology and philosophy (e.g. Latinjak et al. 2023), but has received little attention in linguistics. However, a small-but-growing body of work indicates that the distribution of 1st- and 2nd-person pronouns in self-talk is a useful tool for exploring how speaker and addressee roles are represented in grammar. We explore the predictions and limitations of existing accounts by testing pronoun production in different syntactic contexts and whether sentiment valence modulates pronoun use in self-talk. Our results show pronoun use in self-talk is sensitive to semantics/pragmatics and cannot be derived purely from syntax.

Background: Unlike typical conversation (ex.1), where “I” and “you” pick out speaker vs. addressee, in self-talk the speaker and addressee are the same person, and “I” and “you” can both refer to this person (2). We use the terms ‘I-/you-centered’ self-talk, following prior work.

(1) Quinn says to Kai: “I_{QUINN} am / You_{KAI} are such a fool!” [typical conversation]

(2) Quinn says/thinks to herself: ^{OK} “I_{QUINN} am / You_{QUINN} are such a fool!” [self-talk]

Asymmetries: Some self-talk contexts appear to freely allow both 1st- and 2nd-person pronouns (ex.2), but **imperatives** appear to only allow *you-centered* self-talk. Self-talk imperatives are ungrammatical with *I* (3), just like in typical conversation. The other side of the coin are so-called ‘**verbs of cognition**’ which seem to only allow *I-centered* self-talk (4) (Holmberg 2010, Ritter & Witschko 2021[R&W], Wiltschko 2025), like typical conversation.

(3) a. Quinn says/thinks to herself: * “Pull **myself**_{QUINN} together!” [imperatives: *I ^{OK}you]

b. Quinn says/thinks to herself: ^{OK} “Pull **yourself**_{QUINN} together!”

(4) a. Quinn says/thinks to herself: ^{OK} “I_{QUINN} can’t believe my luck!” [verbs of cog: ^{OK}I *you]

b. Quinn says/thinks to herself: * “**You**_{QUINN} can’t believe your luck!”

R&W suggest I-directed self-talk is *thinking out loud* and you-directed self-talk is *having a conversation with oneself* where “the person engaging in self-talk may assume either (speaker or addressee) role” (Wiltschko 2025). They posit I- vs. you-centered self-talk differ syntactically and semantically (5) (also Krifka 2023): According to R&W, you-centered self-talk (5b) has positions for both speaker and addressee; I-centered self-talk (5a) lacks the addressee layer. Imperatives are bad with “I” self-talk because they require an addressee layer. Verbs of cognition are bad with “you” self-talk because an addressee is grammatically represented as ‘another mind’ (Wiltschko 2025) which cannot be realized as the subject of these verbs.

(5) a. [SPKR [CP...]] I-centered self-talk
b. [ADR [SPKR [CP...]]] you-centered self-talk
c. [X [ADR [SPKR [CP...]]] typical conversation

Aims of our work. **First**, we test whether 1st- vs. 2nd-person pronouns are preferred in imperatives and under verbs of cognition in self-talk. Given the judgment variation discussed by Holmberg (2010), an experiment provides a basis for future work. (Goddard et al. 2022 report an experiment but do not discuss different syntactic configurations.) Further, to see if I- or you-centered self-talk is the default, we test which is preferred with epithets/expressives (1); prior work suggests both are possible, but it is unknown which is preferred/default.

Second, inspired by the lively psychological literature on polarity/valence (positive vs. negative sentiment) in self-talk (e.g. Hardy et al. 2001, Theodorakis et al., 2012, Latinjak et al. 2014), we test if negative vs. positive self-talk influences 1st- vs. 2nd-p pronoun use. The account in (5) does not make predictions about this, and leaves open the question of how a speaker ‘chooses’ to *think out loud* (I-centered) vs. *have a conversation with oneself* (you-centered). We test if sentiment valence influences the likelihood of I- vs. you-centered self-talk.

Experiment (n=62 adult L1 speakers of U.S. English). People saw cartoon images of characters with speech/thought bubbles (6). On targets, the preamble (see image) clarified the

person was speaking/thinking to themselves. People filled in the blanks in self-talk sentences of 3 types (6): (i) copular sentences with expressive nouns/epithets (e.g. *loser*, *terrible procrastinator*, *born superstar*, *genius*), which allow both *you* and *I*, (ii) imperatives and (iii) attitude verbs (e.g. *think*, *believe*, *hope*). (Attitude verbs are more clearly defined than ‘verbs of cognition’.) Crucially, both epithets and attitude verbs involve an attitude holder (~ ‘judge’) but only in attitude verbs is the attitude holder also the subject (and can be pronominalized). We also manipulated **valence** (neg/pos sentiment about the self).



Michelle thinks to herself:
"There's not enough time to figure this out. ___ such a terrible procrastinator!"

(6) *Example of a negatively-valenced item (paired with the image above)*

Expressive: There's not enough time to figure this out. ___ such a terrible procrastinator!

Imperative: There's not enough time to figure this out. Stop fooling ___self!

Attitude verb: There's not enough time to figure this out. ___ just want this to end!

(7) *Additional ex (image omitted here for space reasons): This painting is going to end up looking amazing. { ___ a natural artist! / Just trust ___ instincts! / ___ know that for a fact!}*

We tested both self-speech and -thought; they pattern alike so we collapse them. (We also tested images with/without mirrors; unlike Goddard et al.'22 we find no differences so collapse them.) The study had 18 targets (9 pos/9 neg), 20 fillers. We used Latin Square, so the results can't be due to potential idiosyncrasies of any one item.

Results. Fig.1 reveals more “**you**” with imperatives than expressives or attitude verbs (glmer, emmeans w/ bonferroni corr, $p's < .0001$), as we predicted. People produce more “**I**” with attitude verbs and expressives than imperatives ($p's < .0001$). Further, although both expressives and attitude verbs mostly elicit “**I**”, the rate is higher with attitude verbs ($p < .0001$). This suggests attitude verbs requires structure (5a), while expressive constructions can be realized with (a) or (b), but prefer (5a).

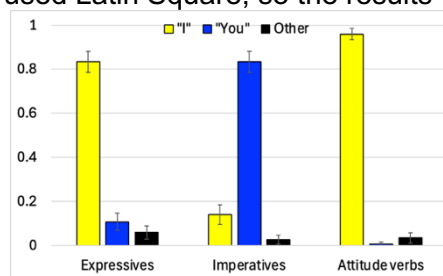
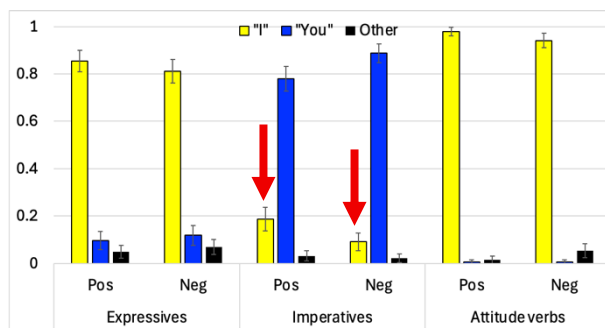


Fig.1. (above) How did people fill the gap?

Fig.2 (below) Same data, split by pos/neg

Fig.2 is the same data, split by **pos/neg valence**. Expressives and attitude verbs show no pos/neg effects. With imperatives, however, people are more likely ($p < .004$) to use “**I**” in positive (7) than negative contexts (6). The finding that self-talk imperatives expressing positive sentiments elicit ~20% “**I**” challenges standard assumptions about pronouns in commands (3a). As a whole, valence effects suggest sociopragmatic/semantic factors beyond the structures in (5) guide pronoun use.



Ramifications. We provide evidence of systematic asymmetries in pronoun use in self-talk and identify new factors that go beyond pure syntax, namely: (a) Expressives exhibit a weaker preference for “**I**” than attitude verbs. We posit that the semantics of attitude verbs (subject = attitude holder) imposes stricter constraints on subject pronominal form than the semantics of expressives/epithets, because—though expressives/epithets are anchored to an attitude holder—the subject in expressive/epithet sentences (*X is a fool*) can in principle be distinct from the attitude holder, unlike with attitude verbs. (b) Sentiment valence, identified in psychology as a key facet of self-talk, has systematic consequences for its linguistic realization. We conclude the linguistic form of self-talk, specifically 1st/2nd pronouns, can't be captured purely by syntax, and exhibits principled sensitivity to concepts related to the self: valence and perspective/attitudes.