Introduction

Background
- Higher levels of depression are associated with increased use of self-focused pronouns (first-person singular; I, me, my) and negative emotion words (Edwards & Holtzman, 2017; Rude, Gortner, & Pennebaker, 2004; Zimmerman et al., 2016).
- Partner use of collective self-focused language (first-person plural pronouns; we, us, our) predicts positive health outcomes for patients with a variety of diseases and disorders; like depressed individuals, such patients use high rates of self-focused language (Rentschner et al., 2015; Robbins et al., 2003; Rohrbaugh et al., 2008; Rohrbaugh et al., 2012).

Research Questions
- What social psychological mechanisms could account for depressed individuals’ increased self-focus?
- Can partner (or significant other) use of self- and other-focused personal pronouns predict lower levels of depression in participants?

Hypotheses
- Because first-person singular pronouns isolate self from other (Dewall et al., 2012; Schofield & Mehr, 2016), and depression and negative emotion is associated with decreased belongingness (Choenarom, Williams, & Hagerty, 2005; Hagerty & Williams, 1999), we predicted that:
  - (H1) Depression’s linguistic correlates are mediated and moderated by decreased belongingness.
  - (H2) Significant others’ use of first-person plural pronouns predicts participant levels of depression.

Method

Participants and Procedure
- Undergraduate students (N = 243; 62.6% female; M_age = 19.68, SD_age = 2.94) completed depression and belongingness surveys, wrote about the most recent interaction they had with someone they deeply care about, and nominated that person (N = 20; 70% female; M_age = 37.55, SD_age = 15.5) to do the same.

Measures
- The Center for Epidemiologic Studies Depression Scale-Revised (CESD-R; Eaton et al., 2004) asked about depression symptoms in the last 2 weeks:
- The CESD-R includes 20 items, e.g., “Nothing made me happy.”
- Three scales were used to measure participants’ levels of belongingness:
  - Need to Belong (NTB; Leary et al., 2005) Scale includes 10 items, e.g., “I do not like being alone.”
  - Interpersonal Needs Questionnaire (INQ; Van Orden et al., 2012) includes 15 items, e.g., “These days, the people in my life would be better off if I were gone.”
  - Inclusion of Other in the Self (IOS; Aron, Aron, & Smollan, 1992) Scale is a single-item measure of interpersonal closeness.

Linguistic Inquiry and Word Count (LIWC; Pennebaker et al., 2013) measured relative frequency (% of total words used) for...
- First-person singular pronouns (e.g., I, me, my)
- First-person plural active (we) and passive (us, our) pronouns
- Negative emotion (e.g., cry, worry)

Results

- Corroborating findings that loneliness is a key predictor of depression (Cacioppo et al., 2015), negative affective language was positively correlated with depression, and that association was partially mediated by a composite measure of thwarted belongingness and perceived burdensomeness.
- Relevant to research demonstrating a higher prevalence of depression and self-focused speech in women (Chung & Pennebaker, 2007; Nolen-Hoeksema, 2001), depressed women used more “I” talk to the degree that they had a weaker need to belong; for depressed women, increased “I” rates may signal social disengagement.
- Complementing research establishing active partner we as a predictor of positive health outcomes in patients (Rohrbaugh et al., 2008), we found significant others’ higher use of passive we (us, our), while controlling for active we, correlated with higher levels of depression in undergraduates.
- Findings suggest that passive us or our, but not active we, may be harmful in close relationships.

Impact
- Over 300 million adults worldwide are negatively impacted by depression (WHO, 2018), making it critical for researchers to uncover more social factors that may exacerbate or ameliorate the condition.
- Natural language patterns, as a behavioral measure, may more directly reflect cognition and emotion than self-reports that can be skewed by limited self-awareness and social desirability biases (Youyou et al., 2017).

Reference list is available on the back of handouts.

Discussion

Figure 1. Mediation effect of perceived burdensomeness and thwarted belongingness on depression and negative emotion language.

Figure 2. Women’s use of I-talk: Sex x depression x need to belong interaction, p = .009. For women with weak need to belong, depression positively correlates with I-talk, p = .03.

Figure 3. Significant others’ passive use-talk (controlling for active use-talk) positively correlates with undergraduate students’ levels of depression, p = .04.