DEPRESSION AND SELF-FOCUSED LANGUAGE IN STRUCTURED INTERVIEWS WITH OLDER MEN\textsuperscript{1,2}

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Summary.—The association between depression and self-focused language has been found to varying extents across studies. The presence or absence of the association may depend on the communicative context. Based on Beck’s depression model, a broad, evaluative self-focused question was predicted more likely to elicit a stronger association than a full interview containing a more heterogeneous question set of items. The spontaneous speech obtained during structured interviews of 26 depressed and nondepressed older men, an as-yet little studied population, was analyzed. Results were consistent with the hypothesis that association between self-focused language and depression was demonstrated in the target question but not across the entire interview. The results may explain some of the aforementioned discrepancies in prior studies.

Broadly, three types of questions were addressed: (1) What kinds of language elicitation yield the greatest discrimination between depressed and nondepressed speech? (2) Given conflicting associations of depression with self-focused language, how does this association vary as a function of context for communication? (3) Can this association be replicated in a sample drawn from a population of older adult men? Preliminary investigation into these questions was performed by analyzing transcripts obtained from an archival sample of structured interviews (Rosenman, Friedman, Strauss, Wurm, Kositcheck, Hahn, et al., 1964).

There are a number of reasons why it is important to examine relations of depression with linguistic style exhibited in spoken interview-based contexts. Most studies of language and depression have involved

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\textsuperscript{2}The authors acknowledge helpful comments on earlier drafts from Peter Mundy, Marjorie Solomon, and John Morgan. The Western Collaborative Group Study was supported by NIA Grant AG09341 and the present paper’s analysis was supported by the Center for Research on Independent Aging (CRIA) at SRI International. Data analyses were performed while Dr. Jarrold was at SRI International. This work was supported by SPAWAR. Dr. Jarrold was supported by postdoctoral training grant MH073124, SJ Rogers, PI, from NIMH during article preparation.

DOI 10.2466/02.09.21.28.PR0.109.5.686-700  
ISSN 0033-2941
written rather than spoken language. Compared with written language, spoken language requires less effort and is a more ubiquitous, natural form of communication. Depression is a serious and pervasive mental illness. It has been shown to exert the largest disease burden worldwide as measured in terms of years lost due to disability (World Health Organization, 2004). Furthermore, depression is stigmatized and thus is often hidden and undetected. For this reason, the National Institutes of Health called depression the “invisible disease” (2001). Finding reliable aids to diagnosis of depression is important for clinicians (Biber, 1988). Having additional means of assessing depression aside from self-report checklists and clinical interviews is thus important. No prior research into relations of language obtained during a structured interview and depression is known.

Older adult data on speech and depression are also important because most of the association between linguistic style and depression has been found with student populations. The known exception is Stirman and Pennebaker (2001), who studied the relations of linguistic style to suicide rather than depression in a population of well-known poets. The current study is the first known to exclusively involve older adult males.

The present analysis focused on lexical cues, although there certainly are strong indicators that speech-related acoustic or prosodic cues are of importance. Other researchers have investigated such cues (e.g., Nilsonne, 1988; Segrin, 2000; Ozdas, Shiavi, Wilkes, Silverman, & Silverman, 2004; Ozdas, Silverman, Silverman, & Wilkes, 2004), but lexical cues have been relatively underexplored.

The association between self-focused language and depression is explained by a number of theories. Several clinical theories hold that depression is a disorder substantially characterized by thoughts and feelings about the self (Beck, 1967; Pyszczynski & Greenberg, 1987). Theories of self-regulation posit a relation between self-focus and negative affect (Duval & Wiklund, 1972; Carver & Scheier, 1981), and most researchers realize that negative affect is correlated with depression. Pyszczynski and Greenberg (1987) posited that self-focus fulfills a unique role in depression. Others claimed that self-focus puts one at risk for a broader set of disorders than just depression (Ingram, 1990). Beck viewed depression as rooted in negative self schemas, i.e., representations of the self which are pervasive negative evaluations (Neale & Davison, 2001).

A series of recent studies has aimed to empirically measure the association between self-focus and depression by measuring how the frequency of self-reference in participant language is related to measures of depressive phenomena. Two early studies of this relationship were based on theories of self-focus and expression of negative emotions (Stirman & Pennebaker, 2001; Rude, Gortner, & Pennebaker, 2004). In Stirman and Penne-
baker (2001), the focus was on detecting suicidality in a sample of poets, by performing text use analysis of their poetry. In that study, the group of suicidal, and presumably depressed, poets had a significantly increased use of self-focused language in their poetry, congruent with theories of higher self-focus (as well as lack of social integration).

The association between self-referential language and depressive feelings was replicated in a different population and language samples in Rude, et al. (2004). Frequency of self-referential written language of students (mean age approximately 18 years) was found to be significantly lower in students who were never depressed ($n=67, 47$ women) versus those currently depressed ($n=26, 20$ women). The participants’ task was to write for 20 min., describing their deepest thoughts and feelings about being in college. Individuals who were formerly depressed did not exhibit elevated usage of self-focused language, but when the essay was divided into three segments, their self-focus increased throughout each segment such that by the third segment, there was a significant difference between formerly depressed and never-depressed participants’ usage of first-person words.

Whereas the latter two studies involved written language, a third study demonstrated the phenomenon in the speech domain. Spontaneous speech in a naturalistic context was studied by Mehl (2006), who described an experiment of the relation between self-reported depression and naturalistic language use by having participants wear a portable recording device known as the Electronically Activated Recorder (EAR; Mehl, Pennebaker, Crow, Dabbs, & Price, 2001). The EAR system had three components: a digital voice recorder (SONY ICD-MS1, Sony Corporation of America, New York), an external tie clip microphone (OPTIMUS Tie Clip Microphone, OPTIMUS, Fort Worth, Texas), and a controller chip (JohnPrice, http://www.tipware.com). Introductory psychology students (49 men, 47 women, $M$ age $=18.7$ yr.) wore the device for two weekdays during waking hours. This device sampled approximately 70 brief snippets of each participant’s sound environment per day. Recordings were transcribed and subjected to LIWC-based analysis. Depressive symptomatology was measured by having the participants complete the Beck Depression Inventory–Short Form (Beck & Beck, 1972). In this and more recent studies, correlational methods were used, in contrast with earlier studies in which significant differences in self-focused language between more depressed versus less depressed groups were assessed. The correlation between ratings on Beck’s scale and frequency of first-person singular words was small but significant ($r=.20, p \leq .05$, two-tailed). It is noteworthy that this was also the only significant correlation across a number of

\textsuperscript{3}LIWC = Linguistic Inquiry and Word Count.
other word frequency measures (e.g., word count, use of positive or negative emotion words, words of causation). Restricting analysis to the 14 individuals with moderate to severe ratings of depression showed the correlation was significant and high ($r = .80, p \leq .01$, two-tailed).

Results from a fourth study, Fast and Funder (2010), were consistent with an association between depression and self-focused language. However, the level of significance of this association varied as a function of participant’s sex and whether the measure of depression was self- or clinician-rated. In women, the correlation was positive and significant whether the depression measure was self-rated ($r = .23, p = .03$) or clinician-rated ($r = .36, p = .001$). In men, the correlation between self-focused language and self-rated depression was also positive but did not reach conventional statistical significance ($r = .17, p = .10$). However, the correlation with clinician-rated depression was near zero ($r = -.04$). Narcissism was more strongly related to depression in females than in males. Further, self-referential language was more strongly related to narcissism in males than females. Their study involved 181 participants (90 women and 91 men) who, as in Rude, et al. (2004) and Mehl (2006), were undergraduates. Depression was assessed by self-report on the Beck Depression Inventory–II and also on the Brief Psychiatric Rating Scale (BPRS; Overall & Gorham, 1962) by clinicians. Participants’ speech was transcribed from recordings of a 1-hr. semistructured life history interview performed by a clinician and later transcribed. The interview started with the question, “Tell me something about yourself” and proceeded to topics such as childhood and family history, college experiences, relationships, and future plans. It concluded with, “Describe a defining event in your life that had a significant impact on or changed your life in some way.” In sum, Fast and Funder (2010) provided us with an example of how the size and statistical significance of the association between depression and self-focused language may vary as a function of participants’ sex and self versus clinician origin of the depression measurement.

The above-mentioned studies illustrate conditions that affect the presence of the association between self-focused language and depression. Rodriguez, Holleran, and Mehl (2010) provided more evidence of boundary conditions in which this association may hold. Fifty-seven introductory psychology students (49 women, age $M = 18.7$ yr., $SD = 1.7$) were asked to perform two spontaneous essay writing tasks—one for a blog and the other for a diary. The instructions asked participants: “What are you? Describe yourself as if you were writing about yourself in a personal diary [online blog]. How would you describe yourself to others?” In contrast to the five studies mentioned above, there was no substantive correlation between self-referent language and depression (as measured by the Beck
Depression Inventory–Short Form (Beck & Beck, 1972), a self-report measure of depression, in either the blog or diary-targeted self-descriptions. The authors suggested that perhaps the inconsistency with prior research arose from the fact that the writing task of describing oneself restricted range of self-referential language and rendered the experiment insensitive to depression-based differences.

Across the above studies, the strength and presence of self-focused language has been shown to vary. Given the variability in the observed association, the mediators and boundary conditions of the relationship between elevated self-focused language and depression should be examined. It was essential to see if the effect would occur among older men and would also be observed in the spoken language obtained in a structured interview. Prior studies had involved written language with the exception of Mehl (2006) and Fast and Funder (2010), whose work involved spoken language obtained in naturalistic and semistructured interviews, respectively.

The final goal was to assess how the relationship varied by language-eliciting condition. Apart from studies of depression, there is evidence that some contexts have greater diagnosticity than others. In particular, Enos, Shriberg, Graciarena, Hirschberg, and Stolcke (2007) focused on detecting deceptive intent in research participants’ spoken interviews, and found promising results when constraining their analysis to critical segments. Such segments were defined as responses to particular interviewer prompts hypothesized to be “hot spots” in which deceptive speech patterns would be more detectable. Such an analysis produced significant gains in accuracy of identification of deception. Across the depression studies reviewed, a wide variety of language-eliciting conditions have been studied. However, conclusions have been limited because only two of the five studies discussed here allow comparison of the different conditions within a given study. Rude, et al. (2004) studied how the effect varied from the beginning to the end of a writing episode. Rodriguez, et al. (2010) varied the target audience. Participants were asked to describe themselves, in one condition, to others in an online blog whilst, in the other condition, to oneself as in a personal diary.

Apparently, no one has manipulated the actual question asked as an independent variable in a within-subjects design. To address the third question, certain kinds of questions were hypothesized to most likely elicit critical segments for depression. In particular, a question focusing each respondent’s attention on broad evaluations of the self would be most likely to elicit pervasive negative self-schemas implicated in Beck’s model of depression. Language elicited in response to such a question should show a particularly strong association between depression and increased
self-focused language. Thus, when responses to these questions were analyzed in isolation, the association would be stronger and more likely to be detected than in comparison to the pooled responses to a set of questions about a more varied set of topics. Positive findings would constitute support for identification of critical regions (Enos, et al., 2007) for self-focused language of depressed individuals.

Method

Participants

Recorded interviews (N = 26) from a subsample of research participants interviewed as part of the Western Collaborative Group Study were obtained and transcribed. Individuals were categorized into two groups, depressed versus nondepressed.

The Western Collaborative Group Study (WCGS) is a large longitudinal study which at its inception in 1960–1961 enrolled 3,154 men ages 39 to 59 years, who were healthy and free of heart disease (Carmelli, McElroy, & Rosenman, 1991). Although the main goal of the study was to study the relationship of personality measures and coronary heart disease (Ragland & Brand, 1988), a wide range of state and trait measures, including measures of depression, was made for each participant at the time of this interview. Most pertinent to the research question, in the late 1980s over 1,000 participants in this study were administered a self-report depression measure, the Center for Epidemiologic Studies–Depression Scale, in addition to a tape-recorded structured interview, as described below.

Assignment of participants into depressed versus nondepressed groups was based on scores obtained on a the Center for Epidemiologic Studies–Depression Scale, completed by each participant at the time of interview, and is explained below. Demographic information indicates that participants tended to be college educated and in their late 60s to early 70s at the time of interview (Table 1).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Nondepressed</th>
<th>Depressed</th>
<th>p</th>
<th>η²</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, yr.</td>
<td>M 69.0</td>
<td>M 70.5</td>
<td>.27</td>
<td>.05</td>
<td>.22</td>
</tr>
<tr>
<td></td>
<td>SD 2.52</td>
<td>SD 3.96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education, yr.</td>
<td>M 14.2</td>
<td>M 14.7</td>
<td>.61</td>
<td>.01</td>
<td>.09</td>
</tr>
<tr>
<td></td>
<td>SD 2.33</td>
<td>SD 3.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOWA</td>
<td>M 3.97</td>
<td>M 4.90</td>
<td>.23</td>
<td>.07</td>
<td>.11</td>
</tr>
<tr>
<td></td>
<td>SD 1.41</td>
<td>SD 2.19</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Note.—SD means standard deviation, IOWA stands for Iowa Screening Battery for Mental Decline. There were 3 cases missing data for the IOWA in the depressed group. p values in all tables are computed from a t test assuming equal variances. η² values from all tables are based on ANOVA.
Depressive symptomatology was measured by the Center for Epidemiologic Studies Depression Scale (CES–Depression), a 20-item self-report questionnaire which measures depressive symptomatology in the past week (Radloff, 1977). Scores were rated on a 0 to 60 scale, with higher scores being indicative of greater depression. Conventionally, a score of 16 to 26 was considered characteristic of mild depression and a score >26 is considered major depression (Ensel, 1986; Zich, Attkisson, & Greenfield, 1990).

Groups

The two groups in this study, Depressed and Nondepressed, were defined on the basis of nonoverlapping ranges of depressive symptomatology (as measured by CES–Depression). The Depressed group was obtained by selecting 14 participants at random from the subset of all individuals with a score of >25 and the Nondepressed group was obtained by identifying individuals in the WCGS database whose CES–Depression score was between 0 and 204. To ensure sampling over the full range, this subset was partitioned into a Nondepressed-high and a Nondepressed-low group depending on whether they scored above or below the median CES–Depression score for the nondepressed individuals. Six participants in the Nondepressed-low group were selected at random from the subset of all individuals whose CES–Depression score was below the median (i.e., between 0 and 3 inclusive). Six more participants were assigned to the Nondepressed-high group by selecting them at random from the subset of all individuals whose score was above the median (i.e., between 4 and 20 inclusive). There were no significant differences on age, education, and cognitive impairment (as measured by score on the IOWA Screening Battery for Mental Decline) as a function of group (Table 1).

Structured Interview

The structured interview given participants in the WCGS database was approximately 15 min. in duration. It was designed to assess Type A versus Type B personality characteristics (Rosenman, et al., 1964; Carmelli, Dame, Swan, & Rosenman, 1991). The interview consisted of a heterogeneous set of questions 1 through 24 which range from matter-of-fact questions such as “Are you retired now?” or “What kind of work do you do?” to potentially emotionally activating ones, such as “How often do you get angry?” or “How do you feel when a car ahead of you is going far too slowly and you can’t pass?”

Note these cutoff scores are slightly less restrictive than those recommended (Ensel, 1986; Zich, et al., 1990): major depression is CES–Depression >26, nondepressed <16. Re-analysis of the samples down-selected according to the more stringent criteria yielded a pattern of significant versus nonsignificant differences identical to all of the patterns reported here.
The precise wording of each question varied in minor ways according to prior answers. For example, depending on the answer to “Are you retired now?” the interviewer would ask either “Are you satisfied with your work situation?” or “Are you satisfied with what you are doing?”

Selection of Critical Segments

The goal was to contrast ordinary interview speech with speech from hypothesized critical segments, i.e., segments of speech that would be especially diagnostic of depression. Thus, transcripts that contained interviewee text from these segments only were prepared. On the basis of the hypothesis, focus was on Part B of the last question from the 24 that comprised the structured interview: Question 24-B: “In your work or career, have you accomplished most of the things that you wanted to accomplish? (If no) Why not? What's gotten in the way? Are you doing anything about this?”

Blind to the interviewee responses, focus was on responses to this question in the early stages of research because, of all questions in the interview, Question 24-B seemed the most likely to elicit language with elevated first-person singular words from individuals with increased depressive distress. Based on Beck's model of depressive schemata as pervasive negative evaluations of the self, it was hypothesized that this question would be a more sensitive elicitor of depression-related language because it prompted participants for an evaluation of the self that was broad in scope or open-ended. If there were significant depressive schemas, any question having these properties would be more likely to elicit a response which would activate these schemas. None of the other interview questions met these criteria. For example, Question 2: “Are you retired now?” although it is about the self, the query is for an objective fact, narrow in scope. Question 22: “How do you feel about waiting in lines—in supermarket lines, bank lines, post office lines?” asks for an evaluation; however, the object of the evaluation concerns waiting in lines and not the self per se.

Preparation of Transcripts for Analysis

Audio recordings of interviews were transcribed. For each interviewee, two transcripts were derived: one containing interviewee’s responses to Question 24-B (hereafter Q24-B), and one containing participants’ responses to all questions. Interviewer’s speech was not subjected to analysis.

Lexical Analyses

Transcripts were analyzed for frequencies of each LIWC dimension, obtained using the LIWC2007 software program. The result of LIWC analysis of a given text was a vector, the elements of which contained measures of the frequency of occurrences of words obtained in LIWC’s predefined word lists. Examples of such predefined word lists include positive emo-
LIWC’s word lists enable an analysis in terms of approximately 80 such frequency-based features in total, resulting in a lexical profile that characterized each transcript.

For each participant, LIWC obtained the frequency of self-focused words corresponding to two transcripts associated with each participant, i.e., their responses to (a) 24-B and (b) to all the questions. Note that “self-focused words” meant not only first-person singular pronouns (such as “I,” “me,” “my”) but also other types of first-person single words (such as the contractions “I’ve,” “I’d”).

**Planned Analysis**

The third goal was to show that the association of depression with self-focused language is stronger in the target question than in the full interview. To maximize comparability with both prior studies based on group differences and those based on correlations, both types of analyses were performed. A group-based analysis tested for significant differences between Depressed versus Nondepressed groups. It was expected that either (a) a difference for the target question but not for the full interview or (b) for both the target question and the full interview would be observed, but effect size would be higher for the former. In the correlational analysis, the correlation between depression scores and self-references in response to the target question would be expected to be stronger than in the full interview.

![Graph](image-url)
Results

Sample’s Characteristic Word Counts

Word counts for Depressed and Nondepressed participants appear in Table 2. Note these differences were not strictly statistically significant although the Nondepressed participants had slightly more words in the essay.

<table>
<thead>
<tr>
<th>Table 2</th>
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<tbody>
<tr>
<td>PARTICIPANTS’ WORD COUNT IN FULL INTERVIEW AND QUESTION 24-B COMPARING DIAGNOSTIC GROUPS (NONDEPRESSED n = 12, DEPRESSED n = 14)</td>
</tr>
<tr>
<td>n</td>
</tr>
<tr>
<td>----</td>
</tr>
<tr>
<td>All questions</td>
</tr>
<tr>
<td>Q24-B only</td>
</tr>
</tbody>
</table>

Group-based Analysis

Self-focused word frequency in Question 24-B was statistically significantly greater for the Depressed group but in the full interview there was no significant between-groups difference (see Table 3).

<table>
<thead>
<tr>
<th>Table 3</th>
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<tbody>
<tr>
<td>FREQUENCY OF SELF-FOCUSED WORDS (%) IN 24-B RESPONSES AND RESPONSES TO ALL QUESTIONS BY GROUP</td>
</tr>
<tr>
<td>n</td>
</tr>
<tr>
<td>----</td>
</tr>
<tr>
<td>All questions</td>
</tr>
<tr>
<td>Q24-B only</td>
</tr>
</tbody>
</table>

Correlational Analysis

Generally speaking, the more depressed the participants were, the higher the frequency of self-focused words. Values of rho between depression (i.e., CES–Depression score) and self-focused word frequency in speech across the entire interview were statistically significant and moderately positive (.42, p = .04, 95%CI = 0.04, 0.69). When analysis was restricted to Q24-B, the correlation was significant and positive (.56, p = .007, 95%CI = 0.18, 0.79). Although the correlation in the restricted transcript was numerically greater, that there was substantial overlap for the confidence intervals constructed around them does not allow inferring correlation is significantly stronger in speech for only Q24-B than in the full transcript.

Ruling Out a Confound: Marital Status and Self-focused Language

To investigate whether marital status was a confounding factor, mari-
tal status (married, single, or widowed) was included in a regression model. Marital status was not statistically significant.

In addition, the effect of self-focused language was not substantially attenuated (i.e., the standardized regression coefficient only changed from $\beta = 2.96$ to 2.77 for the full transcript and from $\beta = 1.43$ to 1.33 for Q24-B-only transcripts). For the full transcript, the $p$ value only changed from .03 to .04 and for the Q24-B-only transcripts from .017 to .019.

**Discussion**

In view of the partially inconsistent findings of prior work, the broad present aim was to investigate the replicability and boundary conditions of the association between self-focus and depression. Specifically, to test the generalizability of this finding to a new language-elicitation context, speech obtained in a structured interview and with a new population of older men was desired. Additionally, it was of interest to evaluate whether the association would be stronger in hypothesized critical segments of an interview, i.e., response regions predicted to be more sensitive on the basis of Beck’s theory of depression, although the original purpose of the interview focused on type A versus type B characteristics. The hope was that elucidation of these issues might clarify the inconsistencies in prior work.

First, these results suggest that the association between depression and more frequently self-focused language is replicable in a structured interview (i.e., Rosenman, *et al.*, 1964). Group differences were detectable in line with Stirman and Pennebaker (2001) and Rude, *et al.* (2004) but only when analysis was restricted to interviewees’ responses to the target question. Analyzing the full interview did not detect a statistically significant group-based difference, however, a significant correlation was observed in a correlational analysis, consistent with Mehl (2006) and the female subsample of Fast and Funder (2010). This statistically significant correlation was at odds with the lack of significant correlation reported by Rodriguez, *et al.* (2010) and the male subsample of Fast and Funder (2010). One can speculate on the sources of these discrepancies both within the present study and across the cited studies.

But, regarding first generalizability to older men, a significant correlation ($\rho = .49$) was detectable between depression and self-focused language in this all-male sample. This finding is somewhat notable in contrast with the numerically smaller and not statistically significant correlation in the all-male but younger sample studied by Fast and Funder (2010). In that study, narcissism was significantly and more strongly associated with self-focused language than with depression scores. Taken together, one might hypothesize that both narcissism and depression are positively correlated with depression in men, with depression being the weaker predictor. Under this claim, Fast and Funder (2010) did not report a significant
correlation between depression and self-focused language because their particular study lacked sufficient power to detect it. Other work may address the source of this discrepancy, e.g., differences in the language task or the sample age or both. There may be language patterns that distinguish narcissism from depression. A study of relationships between personality and a variety of linguistic dimensions, such as Oberlander and Gill (2006), but which explicitly included separable measures of depression and narcissism, should help clarify these issues.

Results supported the present hypothesis that particular interview questions may comprise critical segments, i.e., regions in which the association between self-focused language and depression is larger than background. Based on Beck’s model of depression, general, open-ended questions which probed for self-evaluation were predicted to more strongly elicit the effect than a set of questions that were not as general or evaluative or less focused on the self. Blinded to the responses of the participants, Q24-B (about the level of one’s career accomplishments) was selected as a question that best fit the profile of an open-ended, self-focused evaluative question. As such it was predicted to more strongly elicit the association of self-focused language and depression than data from the full interview.

Both group and correlational data results were consistent with expectations. For the Q24-B-focused analysis, a strikingly clear effect was noted in the significant group difference between Depressed and Nondepressed groups (see Table 3). Most strikingly, a scatter plot (see Fig. 1) showed clusters of first-person-word frequency values for the Depressed and Nondepressed groups were almost completely separated, a rare occurrence in psychological research.

When analysis was performed across all questions, a less clearly demonstrable effect was expected because the remaining interview questions were less evaluative, less open-ended, or less self-focused than those of Q24-B. Results from group-based and correlational analyses were consistent with this expectation.

This provides a clear indication that some questions are more sensitive elicitors than others. The positive findings in this small preliminary study warrant a more elaborate question-by-question analysis using this or another structured interview. One may hypothesize that unstructured contexts such as naturalist speech or poetry are sufficient conditions to elicit the effect as shown in the two unstructured or naturalistic studies of Stirman and Pennebaker (2001) and Mehl (2006). For language-elicitation conditions that involve more explicit directives to the speaker, the presence, absence, or strength of the association may depend on the particular directive. Those directives that invite the speaker or writer to produce broad self-evaluations or feelings would elicit the effect illustrated here.
This view may apply to remaining findings as well. Rude, et al. (2004) may have found the effect because feelings, as valenced reactions, are a kind of evaluation. Their probe, to write about one’s deepest thoughts and feelings about being in college, seems likely to elicit broad self-evaluations (potentially in addition to other broad evaluations such as those about others, objects, or events). By contrast, language elicitors which are more descriptive, such as “What are you?” or “Describe yourself” from Rodriguez, et al. (2010), or the Fast and Funder (2010) elicitors such as “Tell me something about yourself” or “Describe a defining event in your life,” are less likely to be sensitive to the effect or may yield smaller effect sizes. Researchers should test these and other hypotheses as well as replicate present results with a larger sample.

Future investigators should be aware of the limitations of this work. Probably the most notable limitation is the relatively small sample size. The question-dependent effects identified in this article should be replicated in other populations. Generalizability would be enhanced by using interview questions expressly designed for the research questions at hand rather than using an archival sample created with a slightly different main focus.

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*Accepted October 11, 2011.*