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<http://www.tandfonline.com/10.1080/01690961003603046>

How Do Thoughts Differ from Feelings?: Putting the Differences into Words

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Abstract

The present study addressed the question of why people find it easy to distinguish their thoughts from their feelings. In three datasets, we compared the linguistic content of self-reported thoughts and feelings by using the Linguistic Inquiry and Word Count software (LIWC; Pennebaker, Francis, & Booth, 2001). Theoretical ideas proposed by Klinger (1977) led us to predict—and find—that thoughts, when compared to feelings, tend to be (1) present- or future-directed, as opposed to past-directed; (2) relatively open-ended and indefinite, as opposed to completed and definite; and (3) complexly contextualized. More specifically, reported thoughts contain a greater percentage of (1) present- and future-tense verbs; (2) question marks and “discrepancy words” such as *should*, *would*, and *could*; and (3) words (such as verbs, pronouns, and prepositions) that track people’s actions and changing locations. In summary, thoughts and feelings appear to have characteristic “linguistic markers” that enable lay perceivers to readily distinguish them.

How Do Thoughts Differ from Feelings?: Putting the Differences into Words

Since the dawn of civilization, understanding the delicate relationship between affect and cognition has been a recurrent puzzle that has occupied artists, writers, and philosophers. Classic thinkers such as Aristotle, Socrates, Plato, Epicurus, Descartes, Pascal, and Kant devoted considerable attention to exploring the relationship between feeling and thinking in human affairs.

—Forgas, 2008, p. 94

As Forgas (2008) has noted, there has been a long history of debate within the field of philosophy about how thoughts are different from feelings and how these two forms of subjective experience—cognition and affect—are related to each other. Eventually, and not surprisingly, this debate moved into the field of psychology as well. In 1984, for example, Lazarus and Zajonc debated the primacy of thought versus feeling in a widely-cited exchange that was published in the *American Psychologist*. As Zajonc put it, Lazarus argued that “cognition is a necessary precondition” for the experience of affect, whereas Zajonc himself claimed that affect can be independent of cognition and can often precede, as well as follow, it (Zajonc, 1984).

Reviewing this issue the following year in her book *Structure in Thought and Feeling*, Aylwin (1985) sided with Zajonc. She began by noting that “At their closest, thought and feeling are inextricably linked,” giving as one example the experience of insight. “Here the excitement accompanying the cognitive content is what tells the thinker the idea is a good one. At the moment of insight, truth is as much a matter of feeling as it is of thought” (Aylwin, 1985, p. 3). However, Aylwin then went on to note that the relationship between thought and feeling is often not so close, and she concluded by endorsing a view quite similar to Zajonc’s:

. . . Often thought and feeling come far enough apart for one to be seen as the cause of the other. Some people tell themselves how awful they are, and how hopeless their life is, and manage to think themselves into depression (Beck, 1963). The relationship may work both ways here, and people can sometimes be helped to think their way out of depression again, using one of the techniques of cognitive behaviour therapy.

The thoughts cannot always be assumed to lead the feelings however. Wolpe (1978a and b) describes how some patients remain phobic even though they know, rationally, that the object of their terror will not harm them. Here feeling is immune to cognitive interference, either because the feelings come first, or because thought and feeling are simply separate. Zajonc (1980) has recently suggested that in many situations affective processing has primacy over cognitive processing, and that in some situations the two may be virtually independent of each other.

Sometimes thoughts and feeling are the two inseparable facts of a single process; sometimes one causes the other; sometimes they are separate. When a number of accounts can be given of the relationship between two things, it is safest to assume that the relationship is complex. There are many ways of thinking and many ways of feeling, and there may be many kinds of relationship between them. (Aylwin, 1985, pp. 3-4).

In the present article, our goal is different from that of the authors just cited. Instead of exploring how and why thoughts and feelings are sometimes inseparable and sometimes separate,¹ our more modest goal is to understand why it is that, in general, everyday people seem to find it so easy to distinguish their thoughts from their feelings.

The evidence that they do find it easy has been overwhelming in the first author's research. In the many studies of "naturalistic social cognition" that he and his colleagues have

¹ For more contemporary neuroscience-based discussions of this issue, see, for example, Ochsner et al. (2002) and Ochsner (2007).

conducted for the past 25 years (for reviews, see Ickes, 1982, 2002, 2003; Ickes, Robertson, et al., 1986; Ickes, Bissonnette, et al., 1990; and Ickes & Gonzalez, 1994), they have repeatedly found that the participants in unstructured dyadic interactions find it easy to distinguish between the thoughts and the feelings they experienced. When given the opportunity to review the videotape of their interaction and pause it to report each of the specific thoughts and feelings they distinctly remember having had, participants readily decide whether to label a particular mental event as a thought or a feeling, and they rarely (in less than 1% of all cases) report that the event involved an inseparable thought *and* feeling (i.e., a thought-feeling).

To be sure, the methodology itself may in part account for this easy distinction between thoughts and feelings. The participants are given a supply of thought/feeling reporting forms and are asked to check a sentence stem labeled “I was thinking:” or “I was feeling:” before writing out the content of their mental experience in sentence form in the box provided. However, of the several hundred participants who have been debriefed following their participation in one of these studies, virtually all of them have claimed to have had no difficulty distinguishing their thoughts from their feelings when questioned by the experimenter. Indeed, they often seem surprised at the possibility that *anyone* might find this a difficult distinction to make.

In fact, the primary reason they get asked this question was because, in the Q-and-A sessions that typically follow conference talks, fellow psychologists often asked the first author if his research participants found making this distinction to be a problem, and—given the long history of philosophical and psychological debate on this point—were surprised to learn that they did *not*. And we repeat: they don’t. Almost never do research participants tell us that they had any difficulty distinguishing a thought from a feeling, or that the options “I was thinking;” and “I

was feeling:” were insufficient and needed to be supplemented with options such as “I was thinking-feeling:” or “Can’t decide which one:”.

After so many years of research on naturalistic social cognition, our conclusion is that thoughts and feelings are, in all but the tiniest fraction of cases, experienced as subjectively different kinds of mental experience by lay perceivers. Accordingly, the question we asked in the present study was simply: *What aspects of the content of people’s reported thoughts are reliably different from the content of their reported feelings?* Or, to put this question another way: *If people generally find it so easy to distinguish their thoughts from their feelings, can we analyze the content of their reported thoughts and feelings and discover how these two types of mental experience differ in ways that permit such an easy discrimination?”*²

To identify the types of content differences that enable lay perceivers to distinguish their thoughts from their feelings, we used the LIWC (Linguistic Inquiry Word Count) software program developed by Pennebaker and his colleagues (Pennebaker, Francis, & Booth, 2001). After creating separate files of the thoughts versus the feelings that participants reported in three previous dyadic interaction studies, we used the LIWC software to analyze the content of the thought and feeling files separately. Because a standard LIWC analysis categorizes the individual words used in each file into 80 different content-based measures, it offers a good way to begin the task of identifying the types of content that reliably distinguish people’s reported thoughts from their reported feelings.

LIWC analysis is, by now, a widely accepted research tool. It has, for example, been used in many previous investigations of how linguistic content varies as a function of variables such as the respondent’s mental state (Campbell, 2003; Kahn, Tobin, Massey, & Anderson, 2007;

² This question is interesting even if the lay perceiver’s discrimination is overly facile, as many philosophers and psychologists would no doubt claim that it is.

Pennebaker & Chung, 2007; Pennebaker & Stone, 2004), the respondent's personality (Lee, Kim, Seo, & Chung, 2007; Oliver, Markland, Hardy, & Petherick, 2008; Pennebaker & Graybeal, 2001), or the respondent's current situation (Mehl & Pennebaker, 2003; Pasupathi, 2007; Vrij, Mann, Kristen, & Fisher, 2007).

Klinger's (1977) Theoretical Characterizations of Thoughts versus Feelings

So far, our study appears to run the risk of being a completely inductive exercise in LIWC-based "data mining." Because it was important to counter that risk, we developed some *a priori* predictions using Klinger's (1977) characterizations of thoughts versus feelings as our theoretical guide.

For those who aren't familiar with his work, Eric Klinger is one of psychology's greatest contemporary pioneers in the study of naturally occurring thoughts and feelings. The many insights he gained through their study are summarized in his landmark book, *Meaning & Void: Inner Experience and the Incentives in People's Lives* (Klinger, 1977). In this book, Klinger argued that our *incentives* (our motives and the specific goals they give rise to) provide the key to understanding the content of our thoughts and our feelings.

Addressing himself to the phenomenology of thoughts, Klinger (1977, p. 28) proposed that "one can classify thought segments for convenience into three kinds: blank states, operant segments, and respondent segments." Blank states are not, technically speaking, thoughts in the usual sense. Instead, they are just what they sound like: periods of "empty" consciousness in which there is no specific content that can be reported. Genuine thoughts, according to Klinger, can take either of two forms. The first is *operant segments*—instrumental thoughts that are implicitly goal-directed and are focused on developing action plans and carrying them through to completion. The second is *respondent segments*—involuntary and unintentional thoughts of the

type that “have also been called daydreaming, associative thinking, undirected thinking, and autistic thinking” (Klinger, 1977, p. 31).

A large body of research evidence, including studies using the Thematic Apperception Task (TAT), led Klinger (1977, p. 39) to conclude that “*one of the major determinants of thought content is the person’s current concerns*”—the goals and sub-goals that he or she is currently trying to achieve. Although this conclusion may seem obvious in the case of operant thought segments, Klinger argued that goals and sub-goals also tend to activate and underlie respondent thought segments, albeit in a more involuntary and “unfocused” way. In both cases, then, our current concerns are assumed to be major determinants of the content of our thoughts.

Given this assumption, it follows that because most of our current concerns center on either imminent, soon-to-be-achieved goals or on more indefinite future goals, the content of our corresponding thoughts should be (1) *primarily present- or future-directed*, as opposed to past-directed; (2) *relatively open-ended and indefinite*, as opposed to completed and definite (reflecting the fact that the outcome and consequences of the intended goal attempt are not yet known); and (3) *complexly contextualized*, reflecting the fact that goal-directed actions must be carried out in complex, real-world contexts that require a detailed awareness of objects, people, and events, and their changing locations in time and/or space (see Pinker, 2007).

In what ways does the content of feelings differ from that of thoughts? Although feelings can’t be characterized as easily as thoughts,³ the general tenor of Klinger’s (1977) characterization suggests that although many of our more hypothetical and “abstract” emotions are future-directed (i.e., focused on as-yet-unrealized desired or feared outcomes), our strongest and most distinct emotions occur in reaction to consequential outcomes that have already

³ This observation is amply supported in Klinger’s (1977) chapter on feelings, which incorporates the ideas of several theorists, such as James (1890), McDougall (1921), Tompkins (1962, 1963), and Izard (1971), among others.

occurred. Accordingly, the emotions that are most noticeable and are most likely to be identified as distinct feelings should tend to be *past-directed*, rather than present- or future-directed, when they are reported. In addition, because distinct feelings tend to occur in response to outcomes that are already completed and known, the words used to report feelings should tend to convey a greater sense of *completion and definitiveness* than the words that are used to report thoughts. Finally, because the plan needed to achieve (or avert) a particular outcome tends to become less relevant the moment the defining outcome has occurred, the reported content of distinct feelings may be *less complexly contextualized* than the content of reported thoughts. In the case of feelings, the focus should shift immediately to an evaluation of the outcome, whereas in the case of thoughts, the relevant contextual elements should remain highly salient.

Hypotheses

When we apply these theoretical distinctions between thoughts versus feelings to the set of standard content categories that are generated by Pennebaker et al.'s (2001) Linguistic Inquiry Word Count software, a number of specific hypotheses can be derived.

Hypothesis 1: Participants should use more words to describe their thoughts than to describe their feelings. Because thoughts are usually more complex than feelings, reflecting the complexity of the action plans associated with people's current concerns, thoughts may typically require more words to express.

Hypothesis 2: For the same reason, participants should use a greater percentage of what Pennebaker et al. (2001) call "physical state and function words" (e.g., pronouns and prepositions) to describe thoughts than to describe feelings. Because the action plans associated with participants' current concerns require at least an implicit representation of people, events, and objects and the ways in which they are related to each other in time and in space (see Pinker,

2007), pronouns and prepositions are likely to be represented more in the content of reported thoughts than in the content of reported feelings.

Hypothesis 3: Participants should use a greater percentage of present- and future- tense verbs to express thoughts than to express feelings. On the other hand, participants should use a lower percentage of present- and future-tense verbs, but a higher percentage of past-tense verbs, to express feelings than to express thoughts. According to Klinger (1977), current concerns are the major determinants of thought content, and most of our current concerns focus on goals that have not yet been achieved. In contrast, our strongest and most distinct feelings convey our emotional reactions to outcomes that have already occurred.

Hypothesis 4: Participants should use a greater percentage of what Pennebaker et al. (2001) call “discrepancy words” (e.g., *should*, *would*, *could*) in their reported thoughts than in their reported feelings because thoughts tend to refer more often to a potential and as-yet-indeterminate state than feelings do.

Hypothesis 5: For the same reason, participants should be more likely to use question marks (?) in their reported thoughts than in their reported feelings. On the other hand, they should be more like to use periods (.) in their reported feelings than in their reported thoughts. According to Klinger (1977), thoughts typically focused on current concerns whose outcome is still indeterminate or inconclusive, whereas distinct feelings usually reference our emotional reactions to known outcomes. Therefore, sentences that report thoughts may be more likely to end with question marks, whereas sentences that report feelings may be more likely to end with periods.

Hypothesis 6: Last, and most obviously, participants should describe their feelings by using a greater percentage of the LIWC category called “feeling words” (Pennebaker et al.,

2001) than they use to describe their thoughts. Because the English language is rich in the words needed to label specific emotional experiences, participants should obviously rely on such words in order to characterize their feelings directly.

Method

Data Samples

In this investigation, we analyzed the linguistic content of the thoughts and feelings reported by the participants in three previous dyadic interaction studies (Ickes, Stinson, Bissonnette, & Garcia, 1990; Stinson & Ickes, 1992; and Graham, 1994). Specifically, we used the Linguistic Inquiry Word Count (LIWC, 2001) software program to sort the words used in each dyad member's reported thoughts and feelings into 80 content categories.

The first study whose data we analyzed was conducted by Ickes, Stinson, Bissonnette, and Garcia (1990). It included the self-reported thoughts and feelings of the members of 38 mixed-sex (male-female) dyads. The second study whose data we analyzed was conducted by Stinson and Ickes (1992). It included the self-reported thoughts and feelings of the members of 48 male-male dyads (24 friend dyads and 24 stranger dyads). The participants in the friend dyads had known each other for at least a year and had at least weekly contact. In contrast, the participants in the stranger dyads had never met each other before and were paired randomly.

The third study whose data we analyzed was conducted by Graham (1994), as the basis of her master's thesis research. As in the Stinson and Ickes (1992) data, Graham's data included the thoughts and feelings reported in both friend dyads and stranger dyads. However, Graham collected data from 25 female-female dyads as well as from 38 male-male dyads. In all three studies, the dyad members' reported thoughts and feelings during the interaction were obtained using the thought/feeling assessment procedure developed by Ickes, Robertson, Tooke, and Teng

(1986). For the details of this procedure, see Ickes et al. (1986, pp. 66-82).

Creating Protocols of the Participants' Reported Thoughts and Feelings

The thought/feeling data that we analyzed in the present investigation were obtained from three previous dyadic interaction studies, as noted above. After the dyad members in each session had been unobtrusively videotaped during their initial, unstructured interaction, they were seated in separate cubicles where they each viewed their own copy of the videotaped interaction and paused the tape ad lib to report the specific thoughts or feelings they had experienced. Using a standard thought/feeling reporting form, they first checked one of two sentence stems ("I was thinking:" or "I was feeling:") and then wrote down the content of the thought or feeling as the remainder of a sentence that began with one or the other of these sentence stems. In each case, then, the dyad member first decided whether he or she had experienced a thought or a feeling at a self-determined "tape stop," and then wrote down the specific content of the thought or feeling following the chosen sentence stem ("I was thinking:" or "I was feeling:").

After screening the data to select for inclusion only those protocols in which the respondent had reported at least three thoughts *and* three feelings (see below), we separated each respondent's thought and feeling data into two text files (one for thoughts, one for feelings). The text files were then "cleaned" (i.e., edited for a standard LIWC analysis) according to the guidelines provided by Pennebaker, Francis, and Booth (LIWC 2001).

Data Selection and Reporting Criteria

Although the data were collected in dyads, the unit of analysis in the present article is the individual dyad member's thoughts or feelings. The decision to analyze the data at this level was necessitated by an *a priori* decision to include only cases in which the dyad member reported at

least three thoughts *and* three feelings during the interaction. These appeared to be the minimum number of thoughts and feelings needed to provide an adequate sample of words for a LIWC analysis of the linguistic content of thoughts versus feelings.⁴

When this *selection criterion* was imposed, it resulted in many cases in which thought-versus-feeling data were retained for only one member of a dyad. It therefore made sense to analyze the data using the individual dyad member as the unit of analysis, rather than the dyad. However, as an important safeguard against Type I error, we imposed the *reporting criterion* that significant ($p < .05$) effects had to replicate across all three data sets, with a combined conditional probability of less than .000125 (less than 2 in 10,000). By any reasonable standard, a combined conditional probability that low should be an effective safeguard against Type I error.

The application of the selection rule requiring a minimum of three reported thoughts *and* three reported feelings for each participant resulted in a usable sample of 44 individual protocols in the Ickes, Stinson, Bissonnette, and Garcia (1990) study, 40 individual protocols in the Stinson and Ickes (1992) study, and 40 individual protocols in the Graham (1994) study. The protocol for each participant contained two blocks of transcribed text—the text used to express the participant's thoughts (three or more) and the text used to express the participant's feelings (three or more).

Content Analysis of the Thought and Feeling Data Using LIWC 2001

We separately analyzed the linguistic content of each participant's reported thoughts versus feelings using the Linguistic Inquiry and Word Count software (LIWC 2001) that was developed by Pennebaker, Francis, and Booth. LIWC2001 processed the text files for each participant's thoughts and feelings and computed the percentage of the words in each file that

⁴ On average, the participants whose data we included in our analyses reported 7.67 thoughts and 4.62 feelings.

belonged to each of 80 linguistic category measures. These measures include standard linguistic categories (pronouns, negations, assents, articles, prepositions, and number), psychological processes (words about affective or emotional processes, cognitive processes, sensory and perceptual processes, and social processes), relativity (words about time, space, and motion), personal concerns (words about occupation, leisure activity, money and financial issues, metaphysical issues, physical states and functions), and certain experimental dimensions developed for use in previous research (swear words, non-fluencies, and fillers such as “like,” “you know,” and “I mean”).

Results

A series of dependent *t*-tests was conducted to determine whether the percentage use of each LIWC category differed for the same individuals’ thoughts versus feelings. The means and dependent *t*-test statistics for these thought-versus-feeling comparisons are presented in Table 1. Of the 80 LIWC measures analyzed, significant differences between thoughts and feelings were found on 16 of these measures, and these differences replicated across all three data sets. Note that the combined conditional probability of each of the 16 thought-versus-feeling differences in Table 1 is always less than .000125.

LIWC Categories Used More to Express Thoughts

The data in Table 1 reveal that when participants reported thoughts, as opposed to feelings, they used more *total words*. They also used greater percentages of *physical state and function words*; *verbs* (including present tense verbs and future tense verbs); *discrepancy words* indicating a potential, rather than an achieved, state (e.g., should, would, could); and sentences ending in *question marks*.

These results are clearly consistent with the hypotheses we derived from Klinger’s (1977)

theoretical view of thoughts. As expected, more words are needed to express thoughts than to express feelings (Hypothesis 1). Thoughts also require more semantically complex constructions to express than feelings, including more “function words” (e.g., pronouns and prepositions; Hypothesis 2). Consistent with this last finding, thoughts are more likely than feelings to focus on present or future events (Hypothesis 3); to refer to a potential, rather than an achieved state (Hypothesis 4); and to indicate indefiniteness or inconclusiveness by ending with a question mark (Hypothesis 5).

LIWC Categories Used More to Express Feelings

In contrast, when participants reported feelings, as opposed to thoughts, some of the linguistic differences were consistent with our predictions but others were surprising and unexpected. As expected, reported feelings were more likely than reported thoughts to end with a period at the end of the sentence (Hypothesis 5). And, not surprisingly, feelings contained a greater percentage of words that concerned *affective or emotional processes; negative emotions, anxiety or fear; sensory and perceptual processes; and feelings* in general (Hypothesis 6). Unexpectedly, however, reported feelings also contained a greater percentage of *words that were longer than six letters*. Moreover, the report of feelings, as opposed to thoughts, was also characterized by a greater percentage of *meaningless filler words* (“like,” “you know,” “I mean,” etc.).

With regard to the predicted effects, when the feelings in our samples were compared to the thoughts, the reported feelings more often made references to *affect, negative emotion, anxiety, sensory and perceptual processes* (presumably relating to emotion-instigating stimuli), and *feelings*. Reported feelings also were stated more definitely and declaratively, by sentences ending in a period, more often than the sentences used to express reported thoughts (where

sentences ending in a question mark were more common). This last difference suggests that feelings tend to reference emotional reactions to outcomes that have already occurred, whereas thoughts tend to reference more indeterminate current concerns that are still ongoing and have yet not progressed to their conclusion (Klinger, 1977).

With regard to the unexpected findings, why did reported feelings (as opposed to reported thoughts) contain a greater percentage of words that were longer than six letters? To find out, the second author compiled a list of the ten most frequently-used words of more than six letters that appeared in the thought/feeling data. These words were: *feeling*, *comfortable/uncomfortable*, *because*, *conversation*, *someone/something*, *experiment/experimenter*, *interested/uninterested*, *embarrassed*, *anxious*, and *annoyed*. Thus, the raw data suggest that the reported feelings contained a greater percentage of words longer than six-letters because many of those words were emotion labels such as *uncomfortable/comfortable*, *anxious*, *annoyed*, *relieved*, *surprised*, etc. A second reason for this difference was that the seven-letter word *because* appeared frequently in reported feelings, primarily because when participants reported an emotion they often stated an attributed cause or reason for it.

The two remaining differences were more difficult to interpret. First, feelings appeared to include more of the “filler” words that litter everyday speech—words and phrases such as *like*, *you know*, *I mean*, etc. However, when we went back to the raw data for interpretational help, we found that *like* was the most frequently-used of these words, and that it was used less often as “filler” than as a way of conveying a difficult-to-describe subjective experience either metaphorically or analogically (e.g., “I was feeling: Like I was in Las Vegas again and remembering [an] old experience,” “I was feeling: like a clown”).

Second, feelings more often included references to number than did thoughts. This might be because of the cover story used in the experiment. In our paradigm, the experimenter left the dyad members alone for a brief but indeterminate period to deal with a small procedural problem. This scenario often evoked participants' negative feelings and worry about the duration of the experiment. Participants often expressed this concern in units of time ("20 minutes to eat lunch," "4 o'clock appointment," etc.) and stated that they were "impatient/angry" (emotional) because they thought the experimenter would not be back soon. This may be one important reason why "numbers" were reported more often in feelings than in thoughts.

Discussion

When people put their thoughts and feelings into words, as they did in the present investigation, what do these words tell us about the differences between thoughts and feelings? Unfortunately, providing an answer to this question is not as straightforward as it first appears. If there are replicable differences in the words people use to express their thoughts, as opposed to their feelings, these differences may reflect (a) differences in the phenomenal experience of thoughts versus feelings, (b) differences in the linguistic conventions for reporting thoughts versus feelings, or (c) some combination of the two. Because this interpretive ambiguity is inherent in any use of the self-report method, we see no way around it. On the other hand, we think there are still important insights to be gained from a study of this type, even if certain interpretational ambiguities remain.

Thoughts

To try to reduce these ambiguities as much as possible, we can begin by noting that the view of thoughts that emerges in the present data is strikingly consistent with Klinger's (1977) theoretical view. Klinger regards thoughts as focused primarily on a person's current concerns.

Because most of these current concerns are ongoing and will extend into the future, we should expect that most thoughts will be time-oriented in the present and the future. Moreover, because current concerns are complexly contextualized, we should expect that the thoughts needed to capture them will contain relatively many words—in particular, verbs that represent actions and “function words” that represent people, events, and objects and the ways in which they are related to each other in time and in space. Finally, because most current concerns are ongoing and have as-yet-indeterminate outcomes, we should expect that the thoughts used to express them will reflect the uncertainty and indeterminacy of plans, projects, and wishes that are not yet fully realized.

These expectations are clearly met in the current data. First, our data show that more words are needed to express thoughts than to express feelings (*total words*). The interpretation of this particular finding is arguable, however, because it could be explained simply in terms of the fact that the participants generally reported more thoughts ($M = 7.67$) than feelings ($M = 4.62$). More pertinent, therefore, are the results for measures based on the *percentage* of words used, which are not affected by this problem. The data for these measures reveal that thoughts also require more semantically complex constructions to express than feelings, including more *physical state and function words* and *verbs* that express ongoing or future action. Consistent with this finding, thoughts are more likely than feelings to focus on *present* or *future* events; to refer to a potential, rather than an achieved state (as referenced by *discrepancy words* such as “should,” “would,” and “could”; and to indicate indefiniteness or inconclusiveness by ending with a *question mark*.

Are these striking parallels with Klinger’s (1977) view of thoughts mere co-incidence? From a probabilistic (i.e., statistical) standpoint, they clearly are not; the conditional probability

across the three data sets that any of these findings could be attributed to chance was always less than .000125. And although we cannot completely discount the possibility that reporting conventions could play at least some role in this set of findings, we think the most parsimonious way to account for them is to see them as validating the key aspects of Klinger's theoretical view of what most thoughts are actually like.

Feelings

A more cautious assessment must apply to the data for reported feelings. Although the present findings sketch a relatively clear and coherent picture of what feelings are like when viewed through a linguistic lens, the problem of separating the essential nature of feelings from the linguistic conventions for reporting them looms larger in this case.

People learn to recognize and self-label their feeling states through a long process of "emotional socialization" (Ahn, 2005, p. 237; DeBaryshe & Fryxell, 1998; Roberts, 1999). Once they have learned how to do this, they tend to rely on emotional labels to "encapsulate," and convey the gist of, the complex subjective experiences to which these labels refer (Davidson, Luo, & Burden, 2001; Klinger, 1977; Kemper, 1987; Rodríguez-Torres et al., 2005). Accordingly, a frequently used linguistic convention for reporting an emotional experience is simply to provide the emotional label that best captures the overall experience ("I was embarrassed"), although it is also common for respondents to lengthen their report to provide an attributed reason or cause for the emotional experience ("I was embarrassed because I had just asked her that same question a minute ago").

From this perspective, at least some of the linguistic markers of reported feelings that emerged in the present study can be parsimoniously explained in terms of the linguistic conventions for reporting one's feelings. First, because many feelings can be conveyed by using

a single-word “emotion label,” linguistic reporting conventions may be sufficient to explain why reported feelings generally contain fewer words than reported thoughts. Second, the same reliance on emotion labels can also account for the greater prevalence in reported feelings of emotion words such as *embarrassed*, *anxious*, *relieved*, and *comfortable* (along with other emotion words of more than six letters and the words *feel* and *feelings* themselves). Third, because the participants in the dyadic interaction studies knew that they were reporting their feelings in the context of a psychology experiment, they might have felt particularly obliged to “justify” the feeling by using the word *because* to introduce an attributed reason or cause for their emotional experience.

On the other hand, at least one linguistic marker of reported feelings is less readily explained in terms of linguistic reporting conventions. Specifically, the frequent use of *periods* at the end of declarative sentences in which feelings are reported suggests that feelings are experienced as emotionally evaluative reactions to outcomes that have already occurred—in contrast to thoughts, which tend to refer to more indeterminate current concerns that are still ongoing and have yet not progressed to their conclusion (Klinger, 1977).

Conclusions

College freshman and sophomores apparently find it easy to do two things that many philosophers and psychologists have argued are difficult: (1) distinguishing their thoughts from their feelings; and (2) putting their thoughts and feelings into words in ways that help us, as researchers, to differentiate thoughts from feelings and to characterize more precisely what each type of mental content is like in relation to the other.

When viewed in terms of their characteristic linguistic features, reported thoughts conform closely to Klinger’s (1977) theoretical view of them. In comparison to feelings,

thoughts require *more words* to express. They also appear to be more complexly contextualized, requiring more *physical state and function words* and more *verbs* that express ongoing or future action. They are also more likely to focus on *present* or *future* events; to refer to a potential, rather than an achieved state (as referenced by *discrepancy words* such as “should,” “would,” and “could”; and to indicate indefiniteness or inconclusiveness by ending with a *question mark*. These linguistic markers accord well with Klinger’s (1977) view of thoughts as typically focused on complexly contextualized current concerns that are still ongoing and whose outcome is still indeterminate.

When viewed in terms of their characteristic linguistic features, reported feelings require *fewer words* to express than reported thoughts do. Reported feelings are also less complexly contextualized, relying primarily on *feeling words* (i.e., emotional labels) to encapsulate and summarize the overall emotional experience. They also refer more frequently to *sensory and perceptual processes*; use the word *like* to convey a difficult-to-describe subjective experience either metaphorically or analogically; and use *periods* at the end of declarative sentences to imply that feelings reference emotional reactions to known outcomes, and therefore stand in contrast to thoughts, which tend to refer to more indeterminate current concerns that are still ongoing and have not yet progressed to their conclusion (Klinger, 1977).

In summary, although linguistic reporting conventions appear to account for certain LIWC measures being particularly associated with feelings, the overall pattern of data suggests that thoughts and feelings represent distinctly different types of mental content, each with its own “linguistic markers,” and that Klinger’s theoretical model does a good job of characterizing the major differences between thoughts and feelings. Readers are referred to Klinger’s (1977)

book, *Meaning & Void: Inner Experience and the Incentives in People's Lives*, for a detailed exposition of his theory.

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Table 1

LIWC variables for which significant thought/feeling differences were found across all three data sets.

	Stinson et al. (1990) data set			Stinson and Ickes (1992) data set			Graham (1994) data set		
	Means		<i>df</i> = 43	Means		<i>df</i> = 39	Means		<i>df</i> = 39
LIWC variable	Thoughts	Feelings	<i>t</i> statistic	Thoughts	Feelings	<i>t</i> statistic	Thoughts	Feelings	<i>t</i> statistic
Word count	145.64	73.43	5.84**	123.23	59.33	6.48**	114.70	73.68	4.48**
Six letters or more	16.07	20.67	-5.65**	15.63	20.37	-6.53**	15.78	19.59	-4.06**
Physical State and Function words	58.68	54.12	5.04**	58.62	53.14	6.26**	58.70	55.71	3.21**
Verbs	20.92	16.77	7.35**	20.46	17.28	3.94**	19.75	17.57	3.32**
Present	7.49	3.30	6.18**	5.39	2.78	5.02**	5.55	3.56	3.80**
Future	1.30	0.60	4.11**	1.37	0.66	3.12**	1.42	0.72	3.78**
Number	7.73	9.91	-5.12**	8.02	10.20	-5.01**	8.28	9.50	-2.89**
Affect	4.41	7.78	-5.80**	4.36	8.36	-5.86**	4.19	8.47	-7.92**
Negative emotions	1.46	4.32	-5.94**	1.47	4.15	-5.15**	1.58	4.61	-5.54**
Anxiety	0.23	1.86	-4.30**	0.30	1.84	-3.89**	0.15	2.04	-4.16**
Discrepancy	2.79	1.23	4.93**	2.44	1.54	2.46*	2.28	1.38	3.08**
Perception	1.66	9.15	-13.69**	2.06	9.47	-13.13**	1.51	9.06	-19.57**
Feel	0.49	8.04	-15.99**	0.43	8.32	-15.06**	0.47	7.84	-18.39**

Fillers	0.24	0.74	-2.10*	0.25	0.96	2.58*	0.28	0.77	-2.09*
Period	13.09	15.94	- 4.37**	14.01	16.66	-3.75**	13.37	15.17	-3.10**
Question marks	0.39	0.05	3.17**	0.41	0.00	2.98**	0.51	0.02	4.11**

* $p < .05$ ** $p < .01$