Evaluative Language and Its Solidarity-Building Role on TED.com: An Appraisal and Corpus Analysis

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Abstract

Language is a key resource in the formation of online communities, which are in turn central to an understanding of contemporary social relations. This study looks at TED.com, an educational video-hosting platform with few in-built community-building functionalities, to explore the potential for users to affiliate through their language choices. Grounded in Systemic Functional Linguistics, the study uses the Appraisal framework, extended using corpus linguistic methods, in order to analyse users' reactions to TED videos. The findings show that online participants use evaluative language to align with certain ideas and, based on these affinities, form affiliations characterized by sociability and solidarity. These affiliations raise important questions about the conception of 'community' in twenty-first century society.

Introduction

This article argues that, given the transient and disembodied nature of virtual communities, language is a key resource for users wishing to signal their affiliation with others who share similar views. We look at the role that language can play on one online platform, TED.com. TED.com is a popular educational website which hosts audio-video recordings of talks delivered at global “TED” events. Although originally conceived as having a ‘Technology, Entertainment, and Design’ (TED) focus, the range of ideas discussed in TED talks has now widened to include scientific, business, and political issues (Tsou et al., 2014). As of June 2015, TED.com hosted nearly 2000 video recordings of the annual TED conferences.

The TED.com website contains relatively few community-building functionalities beyond the ability for users to comment on and rate the videos; for example, users cannot send private messages or establish friend networks. The questions we address are whether and how users exploit the comment functionality to foster community on TED.com through language, given the absence of other community-building features, and to what extent TED.com can thus be considered to represent a community (or communities). The findings of our study suggest that users align around the expression of shared viewpoints and values, and we argue that concepts of community need to be widened to encompass such fleeting, interactionally-constructed affiliations.

Linguists have yet to determine which methods of analysis are most productive in describing online language as a community-building resource (Seargeant & Tagg, 2014). However, recent studies of online discourse highlight the interpersonal role that stance-taking can play in identity work and participant alignment (Thurlow & Mroczek, 2011). Focusing on evaluative language seemed appropriate given the tendency we had observed on TED.com for users to appraise the content and delivery of the TED talks in their comments. Following Derewianka (2008), Zappavigna (2011), and Knight (2008), we use Appraisal, a social semiotic approach concerned with how evaluative language is employed by text producers to align readers along shared values and attitudes (Martin & White, 2005), to explore the extent to which evaluative language serves as a community-building resource on TED.com. Building on Zappavigna's (2011) approach, we also carry out a corpus linguistics study to extend the results of our qualitative analysis. In particular, we highlight the potential of a corpus approach to connect individual stances with wider patterns of interaction.

In the next section, we explain the theoretical frameworks of Appraisal and Systemic Functional Linguistics, as well as the role of corpus linguistics. We then discuss the TED.com website in relation to research on computer-mediated communication (CMC) and virtual communities. After describing our methods, we present our findings and discuss their wider implications for an understanding of how people use language to form online affiliations in contemporary society.

Theoretical Concepts and Frameworks

The Appraisal Framework

The Appraisal framework (AF) developed by Martin and White (2005) was chosen for our analysis because it emphasizes the social meanings of linguistic patterns and, more specifically, it regards emotions and evaluations as relation-building resources. Through identifying the linguistic resources used to evaluate situations, things, or people, AF aims to uncover how people
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As outlined in Figure 1, AF is organized along three axes of meaning: attitude, engagement, and graduation.

- **Attitude** is “concerned with feelings” (Martin & White 2005, p. 35) and is generally realized adjectivally. It can convey emotions (affect) or express evaluations of either people (judgment) or ideas and things (appreciation). The social/interpersonal functions of attitude are to express either one’s emotions (affect), one’s commitment to certain rules or moral principles (judgment), or one’s preferences (appreciation) (Martin, 2004). All subcategories of attitude can have positive and negative manifestations, both of which can be used by writers to align with their readers.

- **Engagement** represents the axis of commitment. The resources of engagement range from modal verbs and adverbs to conjunctions. A distinction is made between dialogic (heterogloss) and non-dialogic (monogloss) statements. The subcategory of monogloss contains statements which do not relate to other statements and which usually represent “taken-for-granted” beliefs or facts. (For example, one user in our study supports an assertion that “eating cooked food must have something to do with our brain development” with an appeal to the “fact” that “human beings are the most advanced creature on the planet”; this was classified as monoglossic.) The subcategory of heterogloss is useful in highlighting the dialogic character of a text or statement. Through heterogloss, people engage with ideas or affirmations by expanding the dialogic space – that is, someone can either entertain a proposition by acknowledging his/her own subjectivity or he/she can attribute it to someone else, both with the same effect of acknowledging alternative viewpoints. Or they might contract the dialogic space and reject alternative viewpoints through disclaiming (negating or countering) or proclaiming (making a strong affirmation). Heterogloss is particularly relevant when looking into how people subscribe or not to a “community of shared value and belief” (Martin & White, 2005, p. 95).

- **Graduation** has two subcategories, force (which increases or decreases the intensity of an evaluation) and focus (which elaborates on the “typicality” of an evaluation, by either sharpening or strengthening it – e.g., “It is a herbivore, but the dental structure is somewhat universal (hence - omnivorous), just as ours is”). The role of graduation is primarily rhetorical, as it can increase or decrease the intensity of feelings and evaluations. It also acts as an indicator of dialogism, allowing people to express their commitment to certain positions.

Initial applications of AF dealt mainly with written texts (Martin, 2004). However, applications of AF to the study of CMC show how Internet users’ employment of Appraisal resources allows them to form short-lived communities based on common affinities (Knight, 2008; Zappavigna, 2011). The present study builds on these recent developments of AF to investigate the affinities that emerge within the public website TED.com.

Systemic Functional Linguistics

To understand the relevance of the Appraisal framework for the study of online communities, it is important to consider the principles of Systemic Functional Linguistics (SFL), on which AF is based. Central to SFL is the notion of Register, which links aspects of language context (who is speaking, about what, and so on) with specific linguistic features, thus providing a theory explaining the prevalence of certain characteristics in texts produced under similar circumstances (Halliday, 2014). Context is modelled as three variables: Field (which can be thought of as the topic of discussion), Tenor (concerning the
relationship between users), and Mode (including the communication channel). Language features are similarly grouped into three metafunctions of language: the ideational metafunction, or language’s capacity to express ideas, tending to be influenced by Field; the interpersonal metafunction, which mediates human interaction and is influenced by Tenor; and the textual metafunction, which systematizes the other two and is influenced by Mode. Each metafunction brings into alignment a series of system choices, which together make up the range of possibilities open to a language user at any point. Although these metafunctions are considered to manifest concomitantly in language, AF focuses primarily on the interpersonal function (Martin & White, 2005).

SFL is relevant to this study of CMC not only because its modelling of context includes Mode, thereby highlighting the importance of channel and the technical factors involved in this, but also because, by giving equal weight to Tenor, SFL stresses that social factors in the relationships among users are as important to Register as the communication channel. Despite the site’s stated focus that the purpose of the videos is the spreading of ideas (that is, an aim expressed in ideational terms), we are therefore able to show the importance of the interpersonal in the discussions that the videos provoke. This chimes with a move within the CMC literature away from a focus on the technology and towards its users (Androutsopoulos 2006), which we detail below. Just as important for the present study is the concept of speaker choice, another key concept in SFL, which emphasizes how the multiple decisions made by individual language users combine to create a Register. This, in turn, corroborates the concept of a community which is not pre-determined but which defines itself through people’s language choices.

Limitations of AF and the Role of Corpus Linguistics

While AF can be a powerful tool, it is important to acknowledge its limitations. Although Martin and White (2005) offer a detailed inventory of Appraisal resources, the list is not exhaustive. This becomes particularly problematic in CMC contexts such as TED.com where, for example, the category of affect is also realized typographically, through emoticons, unconventional spelling, and punctuation, the occurrences of which were included as examples of appraisal in our TED study. Empirical studies such as this one can therefore enrich and extend the Appraisal framework. More important is the risk that AF’s pre-defined categories and intrinsic views on language and society (borrowed from SFL) will bias the data. One strength of AF is that it requires the analyst to interpret each instance of Appraisal in its context; a limitation is that it therefore cannot take full advantage of quantitative methods that focus on form rather than function.

For these reasons, the second part of this study utilizes the tools of corpus linguistics (CL). CL is concerned with practical methods that allow the collection and study of large datasets. Unlike SFL (and AF), CL tends to be data-driven, in the sense that it primarily derives theory from observations, rather than vice versa. Nevertheless, the linguistic disciplines of CL and SFL are not irreconcilable; for example, one point of agreement is that both analyse authentic samples of language (Thompson & Hunston, 2006).

As shown in our study, CL and AF can successfully counterbalance each other in analysing evaluative language in a CMC context. Specifically, corpus linguistics tools can show how individual instances of evaluation identified through AF form part of (or diverge from) the wider community discourses present in a corpus. In practice, corpus-assisted discourse analysis uses “keywords” (words occurring significantly more frequently than in a general reference corpus) to detect “recurrent phrases and conventional ways of talking” (Stubbs, 1996, p. 158). This method indicates whether patterns identified in a qualitative Appraisal analysis might extend across a larger corpus and, by implication, a wider range of people. Although the scope of this article does not allow us to explore this in depth, our study signals a potential avenue for future research.

TED.com as a CMC Mode

From Medium-Driven to User-Driven Approaches

In this section, we explore TED.com in the context of developing ideas about the role of users and communities in shaping the norms and conventions of CMC. Notable across linguistic and other studies of CMC (and relevant to the present study) is a shift in focus from the effects of the technology towards recognition of the social: that is, the creativity and agency of users.

Early technology-driven CMC studies shared a preoccupation with the classification and characterization of various modes such as instant messaging, virtual worlds, and email (e.g., Werry, 1996). However, in more recent CMC research there has been a shift towards recognizing the empowerment of users as interactive producers of Internet content (e.g., Androutsopoulos, 2006). In this latter perspective, language online is defined not by the technology but by how particular users choose to exploit it. Studies focusing on users rather than the technology include Lee’s (2014) work on “technolinguistic biographies,” in which she explores how various sites are integrated into Hongkongers’ lives, and Leppänen et al.’s (2014) investigation of the ways in which Finns negotiate online identities and affiliations. Central to this social dimension is the concept of “virtual communities,” a contested term which nonetheless has potential explanatory power when it comes to users’ online behaviour.

Virtual Communities

The concept was coined by Rheingold (1993, n.p.), who defined virtual communities as “social aggregations that emerge from the Net when enough people carry those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace.” Despite criticism of this definition as vague (Androutsopoulos, 2006; Zappavigna, 2011), the criteria established by Rheingold recur in Herring’s (2008, p. 921) overview of frequently-cited characteristics of online communities, namely:
1. existence of a common interest (such as watching TED videos);
2. persistence of interactions;

The notion of spatiality has long been contested in sociolinguistics with the recognition that people belong not only to physically-located “speech communities” (Labov, 1966) but also to various discourse communities formed not through geographical proximity but through shared interests and goals (Barton & Tusting, 2005). However, the notion of “virtual space” can be useful in understanding the development of online affiliations in well-defined sites like TED.com. Gee’s (2004) concept of “affinity space” explains how people may be drawn to interact with others in an online location because of shared interests or activities and how this may lead informally to the formation of what users would recognize as community practices and norms. We see TED.com as comprising affinity spaces, in that the website provides the opportunity for active participation through the sharing of ideas and knowledge, which may in turn lead to shared practices, the emergence of specific roles, and a sense of shared history and group identity among some users (Herring, 2004).

Persistence of interactions (the second criterion) is likely not a feature of many contemporary online affinity spaces. In 1985, the WELL community described by Rheingold had 700 users, scattered over the United States, many of whom would log in daily and develop face-to-face relationships, despite its asynchronicity. By contrast, TED is a public, global, highly populated platform, whose users are likely to divide their attention among various online sites. One consequence is that users of modern social media have greater liberty to associate with, and move among, specific values or interests (boyd, 2012). The fact that shifting, multiple allegiances have also been described as characteristic of contemporary, urban offline communities (Blommaert & Varis, 2011) suggests that this phenomenon is not restricted to online interactions and may have wider significance in society. Despite this, in crowded and rapidly-updating spaces such as TED.com, attempts to affiliate with others nonetheless seem to shape much user behavior (Seargeant et al., 2012). Given the lack in many affinity spaces of prolonged interactions or binding exclusive membership, the signaling of allegiance to values or interests through language becomes an important way of affiliating with “like-minded” others. As discussed by Herring (2004, p. 361), such discourse behaviors as in-group references and the expression of solidarity can act as indicators of the development of virtual community.

Relevant here is the concept of imagined communities (Anderson, 1991), according to which criteria such as spatiality and sustained interaction become less relevant than online users’ perceptions of whom they are addressing and with whom they wish to affiliate, meaning that attempts to align practices with imagined others can be crucial in determining community. This process of affiliation may be more complex online than in typical face-to-face interactions, not only because the online audience is invisible and unknown but also because online audiences can potentially involve diverse groups of people which the user must address simultaneously (Marwick & boyd, 2014). The linguistic strategies used to address such complex audiences have been described across online sites (Frobenius, 2014; Tagg & Seargeant, 2014) and include pronouns, code-switching, and contextualized references.

As this suggests, particular uses of language – choices between languages, level of formality, use of respelt forms, and so on – help users affiliate with other users. The use of linguistic resources in community formation may be particularly important in online spaces where people do not have access to physical cues such as gesture and body language and where the burden of pragmatic work tends to fall on “code-centred” cues (Georgakopoulou, 1997, p. 58). Zappavigna’s (2011) linguistic study of Twitter, for example, suggests that Twitter conventions such as the hashtag allow users to cluster around “evolving topics of interest” (Zappavigna, 2011, p. 800), a phenomenon which Zappavigna calls “ambient affiliation.” According to Zappavigna, users who are not “acquainted” on Twitter – they do not know each other offline or have a lasting online relationship – can still form ephemeral alliances through adopting shared conventions and values. In online, largely text-mediated contexts like Twitter (and TED comment threads), where the exact composition of one’s audience is unknowable (boyd, 2012), affiliations can therefore be said to be interactively constructed through users’ use of language (Tagg & Seargeant, 2014). Thus users can potentially bring into being a community through their language choices, which are in turn shaped by their perceptions of the individuals they wish to affiliate with.

To conclude, linguistic analysis of how users imagine and address communities online can show how users employ language resources to signal and forge affiliations. The argument that online affiliations can be identified through people’s shared language practices underlies our study of TED.com, where we show how users’ expression of shared values and beliefs constitutes an important interpersonal resource in affiliating with like-minded individuals who share similar views.

**Aim, Data, and Methods**

The aim of our study is to determine whether and, if so, how evaluative language resources act as a solidarity-building resource for TED.com users. This aim rests on the assumption, explained above, that a sense of “community” can be forged through the expression of shared values. We address the following research questions:

1. What is the distribution of Appraisal features (affect, judgment, and appreciation) across user comments made in response to videos on TED.com?
2. To what extent and how are these resources used to signal affiliations with other users?
   a. Are the attitudes positive or negative?
   b. To what extent is graduation a feature of the user comments?
   c. What is the distribution of monogloss and heterogloss realisations, and how are they used?
3. To what extent do the Appraisal resources reflect wider patterns across the discourse, as suggested by corpus analysis?

TED videos are free to watch for anyone visiting the website, but only registered users (‘members’) can comment on them. Although the videos tend primarily to attract non-academic audiences (Sugimoto & Thelwall, 2013), the comments differ
significantly from those left in response to YouTube videos, which tend to be more interactive, less focused on the topic of the video, and more negatively-orientated (Tsou et al., 2014).

We collected 22 comment threads, corresponding to the 22 TED talks categorized under the topic of “food” by May 2012. Given the emphasis placed by AF on Tenor, selecting videos with a common topic makes Field a less problematic variable. The topic of food was chosen for practical reasons: The corresponding comment threads were considered to contain sufficient data for building a small corpus that was manageable in terms of the researchers’ time limitations. Comments were arranged chronologically (from September 2006 until May 2012 inclusively), manually stripped of unwanted information (such as the number of negative/positive votes given by other users and the date of posting) and then compiled into a corpus (TEDCor) containing a total of 22 .txt files and 340,938 words. [1] For the AF study, we selected comment threads on three talks, to cover a breadth of food-related topics and different patterns of interaction. Below is a brief description of the selected talks.

Thread 1: Roger Doiron on home and community gardening (119 comments posted by 86 users between December 2011 and May 2012; characterized by a tendency for users to evoke their personal gardening experiences). [2]

Thread 2: Dr. Heribert Watzke on the brain and digestive tract (259 comments posted by 160 users between October 2010 and May 2012; most posted October-November 2010); takes the form of a long, complex debate with numerous participants and various topics). [3]

Thread 3: Chefs Ben Roche and Homaro Cantu on innovative cooking methods (156 comments posted by 83 users from December 2011 to May 2012, 58 of which are the contribution of one of the speakers, H. Cantu). [4]

Each of these discussion threads was manually coded for instances of Appraisal by two coders, using the colour-coding function provided by CATMA 3.2, [5] a qualitative data analysis software tool. Although interrater reliability was not measured, disagreements were discussed and resolved. We also used CATMA to generate numerical data for each category and subcategory of Appraisal (see Table 1).

The second part of the analysis employed a more quantitative approach. To carry out our corpus analysis we used a corpus linguistics software tool, AntConc (Anthony, 2001). By using a collection of texts (a corpus) as input, AntConc can perform a series of quantitative queries, such as word-frequency lists or word-cluster lists (lists of words that most frequently occur with the searched word). AntConc can also generate a list of the most significantly frequent words in a corpus (keywords), by comparing the word frequencies with those in a larger, reference corpus. The reference corpus used was the 40-million-word sample of the enTenTen web corpus (a corpus of English language web pages collected in 2012, which can be accessed through Sketch Engine [Kilgarriff et al., 2004], [6] a corpus query system). Another functionality of AntConc is to generate concordance lines, which display all occurrences of a word and its immediate contexts. This type of manual, intuitive analysis of words in context allowed us to perform a more in-depth, qualitative type of analysis of those words that quantitative corpus analysis indicated as significant.

Ethical concerns arise when working with authentic data collected online, particularly around user privacy and confidentiality. TED.com comments are public, and quoting them does not breach privacy conditions (AoIR, 2002). However, to preserve confidentiality, we use only users’ initials in our examples.

Discussion

Overview: Appraisal across Three TED.com Threads

Positive evaluation seems to be the defining characteristic of the TED comments we sampled. As shown by analysis of the three threads, positive attitudes considerably outnumber negative ones (Table 1). This is true of all subcategories of attitude: affect, judgment, and appreciation. Also notable is the frequent use of appreciation, as compared to the other two subcategories of attitude. The use of graduation is another recurrent pattern in the comments, with the realisations of force being considerably more frequent than those of focus. In terms of engagement, the subcategory of monogloss is less frequent in comparison to heteroglossic realisations. As for the subcategories of heterogloss (disclaim, proclaim, entertain, and attribution), although their distribution varies with each thread, when considered overall disclaim and entertain appear to be more frequently used than the other two subcategories. Another feature, not present in the table and not included in the Appraisal framework, but which we considered relevant for the present study, is “personal stories” – comments or sentences in which users talk about their own experiences (e.g., Kouper, 2010). A picture emerges of TED users as predominantly engaged in highly positive appreciation of and alignment with the ideas of others, where (as we shall see) any criticism is carefully hedged by initial praise.

Most of these patterns can be observed in Table 1, which is based on the numerical data offered by the CATMA software. Although the three comment threads differ slightly in terms of the frequency with which various features occur, the patterns can be recognized across them. These general patterns are elaborated on in the rest of the analysis section.
Table 1. Overview of Appraisal in the three comment threads

<table>
<thead>
<tr>
<th>APPRAISAL</th>
<th>Thread 1</th>
<th>Thread 2</th>
<th>Thread 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>Subcategory</td>
<td>category totals (100%)</td>
<td>subcategory counts</td>
</tr>
<tr>
<td>Affect</td>
<td>Affect+</td>
<td>94</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Affect-</td>
<td>22</td>
<td>60</td>
</tr>
<tr>
<td>Judgment</td>
<td>Judgment+</td>
<td>100</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Judgment-</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Appreciation</td>
<td>Appreciation+</td>
<td>261</td>
<td>219</td>
</tr>
<tr>
<td></td>
<td>Appreciation-</td>
<td>42</td>
<td>16</td>
</tr>
<tr>
<td>Engagement</td>
<td>Disclaim</td>
<td>425</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>Entertain</td>
<td>106</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Proclaim</td>
<td>84</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>Attribution</td>
<td>82</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>Monogloss*</td>
<td>33</td>
<td>8%</td>
</tr>
<tr>
<td>Graduation</td>
<td>Focus</td>
<td>365</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Force</td>
<td>320</td>
<td>88%</td>
</tr>
</tbody>
</table>

Positive Expressions of appreciation

What many TED.com comments across the three threads have in common is the presence of largely positive evaluations, of judgment (moral evaluations of people), appreciation (evaluations of objects or ideas), and affect (emotional reactions), suggesting that users are in general agreement with each other and that they agree with the ideas expressed in the videos. This positivity is illustrated below:

Thread 3/C.M.: You guys are remarkable [judgment+]! [7] [referring to the two chefs]

Thread 1/T.R.: I loved [affect+] this talk! I’m trying to turn it into an ESL lesson for my students.

Thread 2/A.A.: BTW, I’m crazy [affect+] about steak tartare. Delicious [appreciation+] ;P [affect+] [8]

Affect and judgment occur very infrequently compared to appreciation (241 and 325 times, respectively, in comparison to 1361 total occurrences of appreciation), for reasons discussed below. When it does occur, positive affect is mostly used to express enthusiasm for the talk or for stating personal preferences, as in the following examples:

Thread 1/Z.: YEAH! I am so happy [affect+] I saw this.


As for judgment, although positive judgments are made by users to praise the speaker and other users, there are also a few examples in the corpus when negative judgments are used as insults. In this example, a commenter accuses another of giving false data.

Thread 2/T.K.I.G: Quack [judgment-] Doctor, Are you going to stick with your fabrications and false knowledge [appreciation-]?

A first glance at appreciation suggests that it often refers to an evaluation of the ideas in the video, as in these examples:

Thread 1/K.R.: This is a brilliant [appreciation+], inspiring [appreciation+] talk, and a well crafted [appreciation+] argument as a well told [appreciation+] story. Subversive plot, giving back power through gardening, gardens grow healthy [Judgement+] kids, and how do we grow more [force] gardens.

Thread 3/S.T.: That is awesome [appreciation+] talk... :) [affect+].

The fact that about one-fifth of the comments start with a positive appreciation suggests that users are trying to engage other users in discussion. These positive appreciations are frequently followed by either a personal story (18 examples, mainly from Thread 1) or a disclaim (66 examples), which we discuss in more detail in the following section. Commenters seem to use these initial positive appreciations as a means to align themselves favourably with their interlocutors and/or with certain ideas expressed in the video, in order to make relevant a personal story or hedge a subsequent disclaim:

Thread 1/A.C.: Wonderful [appreciation+]! so [FORCE] inspiring [appreciation+] and moving [appreciation+]. I am a community worker, the coordinator of 37 community gardens in the city of Jerusalem (and a TEDtranslator, too!) [personal story] Is there any way we can get TED to transcribe and allow to translate this talk so we can spread it around to the thousands of co-
plots in this part of the world?

Thread 2/L.L.: This is all very [FORCE] good [appreciation+] however [disclaim] we are forgetting a very [FORCE] important [appreciation+] issue with the idea of eating just fruits and nuts.

Users also draw on appreciation to directly evaluate opinions and ideas present in the comments, as in these examples from Thread 2:

Thread2/A.S.: Brilliant [appreciation+] comment!

Thread2/P.B.: Excellent [appreciation+] observation if only more people were as observant [Judgment+].

Thus, users appear to use positive appreciation not only as a means for expressing their own appreciation of the videos, but also for engaging with each other's ideas on the particular topic or in response to a video.

To conclude this section, positivity is an important feature of the TED comments. Users overwhelmingly choose to frame their comments as positive evaluations (or appreciations) of the ideas being expressed. A possible explanation for the relatively high use of appreciations can be found in the characteristics of the platform: TED videos and discussions are mainly about ideas, so the targets of evaluation are, in most cases, abstract concepts. The focus on ideas is less confrontational than evaluations of other users, and less egocentric than expressions of personal feelings; thus it may constitute a more positive community-building resource on the site. Positive appreciations in particular are used to stimulate dialogue and set a polite tone for the discussion, in combination with engagement (disclaims) or personal stories, two categories that we discuss in the following section.

ENGAGEMENT in TED.com Threads

ENGAGEMENT refers to how users acknowledge alternative viewpoints and how they relate to these “other voices” (Martin & White, 2005, p. 94). As evident in Table 1, heteroglossic discourse is a well-represented category across the three threads (with 392 occurrences in Thread 1, 940 in Thread 2, and 334 in Thread 3), showing that users are picking up on their interlocutors' ideas and opinions. By contrast, monoglossic discourse has considerably fewer realizations (see, for example, Thread 2: 58 instances of monogloss compared to 940 instances of heterogloss). This reflects users' predisposition for dialogism, as we might expect from an online discussion group.

The following sentence from Thread 2 illustrates all four sub-categories of heteroglossic engagement (proclaim, entertain, attribute, disclaim):

Thread2/J.W.: I reckon! [proclaim] Further, I can only guess [entertain] that he's talking about [attribute] cooking meat, and thus ignoring a raw food vegan or vegetarian diet, and yet [disclaim] he started by referencing this [attribute] in describing our teeth as being best suited to soft mushy food.

Apart from demonstrating the dialogic character of a comment or comment thread, engagement can also work as an indicator of group solidarity (Martin & White, 2005). The most relevant subcategory in this sense is the subcategory of entertain, which consists of expressions that acknowledge one's subjectivity and the existence of alternative views. Table 1 shows entertain, followed by disclaim, to be the most frequent subcategory of engagement. In the following example, S.A. uses the modal “maybe” to entertain other possible explanations or points of view; furthermore, by using the verb “imagine” in the first person singular, S.A. underlines the fact that this represents his/her own, subjective position:

Thread 2/S.A.: And maybe [entertain] there are some other categories. There are also some abrupt changes I can imagine [entertain] that take just a generation, maybe [entertain] induced because of radiation.

There are numerous such examples of entertain across the three threads. Also, entertain often co-occurs with the other frequent subcategory, that of disclaim, as illustrated by the following examples:

Thread 3/G.H.: I would say that [entertain] the “tuna” has a nutritional profile radically [FORCE] different than that of real [FOCUS] tuna, but [disclaim] it also is a striking [APPRECIATION+] example of the transformation that can [entertain] take place in food.

Thread 2/M.W.: I don't think [disclaim] he tried to justify eating junk food so much as [entertain] tried to make a joke about his own weight.

This reciprocal relation between entertain and disclaims illustrates the point made by Martin and White (2005) that solidarity within a group is not necessarily expressed through total agreement, but rather through respect for alternative opinions. The detailed analysis of comments indicates that these two subcategories are working together, rather than excluding each other. A similar point was made in the previous section with respect to the combined use of appreciation and disclaim – the appreciative comments served to hedge and frame the divergent views expressed, as illustrated by the following example:

Thread 2/M.P.: Interesting [appreciation+], but [disclaim] I would like to know more about the other types of feelings we get in our stomachs.

These practices allow users to express divergent views while at the same time affiliating with certain topics or ideas and
maintaining a polite tone. With a relatively high level of tolerance and the presence of alternative viewpoints, interactions between users of TED.com seem to differ from those on larger video platforms such as YouTube (Tsou et al., 2014); for example, in his study of YouTube dialogues between Christians and atheists, Pihlaja (2011) finds a lot of antagonism and disagreement.

A relation-building role is also played by the personal stories or experiences mentioned in the previous section, which occur in 116 occasions across the three threads, sometimes (18 cases) preceded by appreciation. The frequency of these personal stories by themselves or in combination with Appraisal resources – see the use of appreciation in the examples below – suggests that they represent another important interpersonal resource on TED.com, as also noted by Kouper (2010) in her study of online peer advice. The willingness to share personal experiences in a public space indicates an intention to belong, rather than a desire to be different. This bridge-building quality is visible in the following examples from Thread 1, in which two users from different countries share their common experiences with gardening:

Thread 1/Z.A.: simply inspirational [APPRECIATION+]
I am from Karachi, Pakistan and here I am trying to make use of empty plots around the city. I am trying to inspire and educate people to use their rooftops and balconies to grow their own food [personal story]. Roger Dorion inspires me because its amazing [APPRECIATION+] how he has gathered thousands of gardeners from around the world for the same cause. [...]  

Thread 1/J.N.: im from india [personal story] and whatever your doing is really [FORCE] great [APPRECIATION+].our countries are space constrained and we need ideas like this...ill spread this idea too.

In conclusion, the frequency of heteroglossic comments (as opposed to monoglossic) and particularly of entertain and disclaim, indicates that TED users do more than rating and commenting on a video: They imagine, and communicate to, a group of individuals who they perceive to have similar interests and values. Moreover, the presence of the personal stories in this public debate space not only suggests a certain degree of intimacy but also reinforces the idea that TED users seem inclined to bond through sharing.

Graduation

GRADUATION – the intensification or other specification of evaluation – is frequently used by TED commenters. Table 1 shows realisations of graduation to be even more numerous than those of attitude in Threads 1 and 2. As in the case of attitude, the distribution of the subcategories of graduation is uneven – in all three threads, there are considerably more instances of force (that is, intensification), than instances of focus (which expresses the typicality of a category). Generally, graduation works alongside other Appraisal categories to intensify or add nuance to evaluations:

Thread/M.A.: Awesome [appreciation+] Talk. I really [force] enjoyed [affect+] watching. I ve been a TED Talks video watcher for years now [force].... this is my first comment...

The frequent use of force (intensification), along with appreciation, suggests a high level of involvement – users seem very committed to what is being said. As shown in the following example, not only are emotion and personal opinion reinforced, but also factual information or argumentation:

Thread/J.G.: Gorilla might not be a good example. It is a herbivore, but the dental structure is somewhat [focus] universal (hence - omnivorous), just as ours is. I'm not sure teeth is a good indicator - they change far [force] slower than the diet. To see what a pure [focus]-herbivore dental structure looks like, look at a deer skull (gorilla doesn't come anywhere near [force] that degree of adaptation to herbivorous diet), to see what a pure [focus] carnivore looks like, look at a wolf's skull - both are very [force] specific and practical designs, and don't look like ours much [force]. [...]  

Here, force and focus play a complex rhetorical role – on the one hand, intensifiers are used to impress on the reader the validity of the user's point (“far slower,” “anywhere near”), while other forms often appear to help the user avoid coming across as overly authoritative in this informal forum (as in “somewhat universal”). The use of graduation and positive appreciation thus suggests that commenters are intending to persuade other commenters and that the Appraisal strategies indicate a high degree of commitment to the values or ideas expressed (as opposed to using entertainment or attribution, such as quotation or hedging, which might be considered typical of academic debate).

To summarise, analysis of Appraisal in the TED corpus reveals a high level of interactivity within the three selected comment threads. While contributing to the general discussion of ideas, users seem to foreground interpersonal, rather than ideational meanings; that is, they seem as much, if not more, preoccupied with aligning themselves with others than with stating privately-held views. In doing this, users employ graduation-force (which suggest a high level of commitment), as well as positive evaluation (taking a stance helps them align with certain ideas, and consequently affiliate with groups holding shared values that emerge from the comments). Despite their sometimes divergent views, users manage their affiliations by prefacing divergences with positive appreciation, and seem committed to bonding and sharing experiences (such as through personal stories). In fact, it appears that TED users in these threads share to some extent similar worldviews and values in relation to food. In the next section, we investigate this further with the help of corpus analysis.

Corpus Analysis
Corpus analysis of the full data set of 22 comment threads (340,938 word tokens) suggests that the attitudes revealed through qualitative Appraisal analysis of three threads form part of a wider pattern across TED comments, at least those relating to food. By looking closely at the top 150 most frequent “keywords” (that is, words and phrases that occur significantly more frequently than in a general corpus of English-language texts published online), we noticed that a considerable number fit into one of the five ad hoc categories illustrated in Table 2. These manually-identified categories are: 1) food-related terms; 2) deictics, particularly pronouns; 3) debate-related terms (a group of words that suggest an ongoing debate or discussion); 4) positive evaluative terms; and 5) intensifiers and quantifiers (realized adjectivally and adverbially).

<table>
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<td>here</td>
<td>84</td>
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<td></td>
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Table 2. Categories of keywords in TEDCor (with rank orderings)

With 2478 occurrences, the word food is the most significant lexical keyword in TEDCor. This and other food-related terms (eat, cooking) suggest the “aboutness” of the corpus (Scott, 1999) – food. Although unsurprising given the topics of the videos, the finding suggests that users generally do not go off-topic in their comments – a tendency noted elsewhere in the literature and in contrast to YouTube commenters (Tsou et al., 2014). As shown in the analysis of appreciations, these TED users come together around their evaluations of the ideas expressed in the videos.

We can then identify what commenters say about food by looking at the collocates of food – that is, the words that occur most frequently with food. In this case, the most common adjectives used with food include fast, healthy, junk, organic, and processed, as shown in Table 3. Many of these collocates of food are themselves keywords in the corpus, such as good (Table 2, column 4), healthy, organic, and local (column 1).

<table>
<thead>
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<td>32</td>
<td>unhealthy</td>
<td>18</td>
<td>local</td>
<td>11</td>
</tr>
</tbody>
</table>

Table 3. Collocates of food (modifiers only) with frequencies (from Sketch Engine)

The frequency and clustering of these keywords in TEDCor suggest the presence of certain discourses or “conventional ways of talking” (Stubbs, 1996, p. 158) among these users about food (Hunston, 2011). These include a tendency to discuss food in terms of its source (e.g., organic, local), its naturalness (organic, processed), and its nutrition (junk, healthy). Although this is unsurprising, as these are widely-shared contemporary concerns, it is not inevitable – for example, the British National Corpus collected in the 1980s shows a different picture, with contributors discussing food in relation to industry (agriculture, fisheries, supply, production), safety (poisoning, hygiene, safety), and problems such as intolerance and shortages. However, the method shows the potential for uncovering less obvious worldviews.

The frequency of deictics and debate-related words (columns 2 and 3, Table 2) seem to confirm what we could only speculate based on the qualitative analysis of the three conversation threads: that, despite the lack of community-building functions, there is a considerable amount of interaction among TED commenters.

The presence of deictics – grammatical words whose referent is not fixed but contextual – can suggest a shared understanding among interlocutors. For example, a random sample of 150 concordance lines containing the first-person plural pronoun we revealed that it is mostly (in 85% of cases) used inclusively (meaning that the addressee is also included), which is a typical means of engagement in academic discourse (Hyland, 2005) and which, in the context of user comments on TED talks about food, seems to serve the same purpose: to position commenters and their imagined audiences along the same lines. The function of we in these comments is either to persuade, as in “I think we can all agree that: Humans have nails instead of claws, used for grasping, not for tearing at things like a tiger” or to invoke solidarity, as in “We as a society need to assume responsibility for ALL our actions, purchases and habits.” Also used to invoke solidarity is the possessive our, another important keyword, whose most frequent collocates are food, body, child, health, and diet, suggesting that users are invoking a common concern for these issues: “Getting back to nature in our food, organic nature, IS the key!”

Turning to debate-related words, the fact that point, fact, idea, agree, and example are significantly frequent in TED conversation threads about food (column 3, Table 2) underlines the dialogic and deliberative nature of these threads, as
previously suggested by analysis of GRADUATION. This is illustrated by two keywords, talk and idea, in Tables 4 and 5 below. Concordance analysis shows that talk (737 occurrences) when used as a noun (90% of cases) is the target of evaluations in more than half of its occurrences, with a ratio of positive to negative evaluations of 6:1. Also, as shown in Table 4, the verbs love and enjoy are frequent collocates of the noun talk, as are modifiers such as great, interesting, good, and wonderful. Similarly, idea (288 occurrences) is the target of evaluation in half of the cases, and it mostly collocates with verbs such as like or love and positive adjectives such as great, good, or nice (Table 4), with an overall positive to negative evaluations ratio of 4:1. Using the “Concordance plots” function in AntConc, we looked at the distribution of the keywords talk and idea and their most frequent collocations – great talk, good talk, great idea, good idea. We found that these words and collocations are evenly distributed across the corpus, occurring once or twice in several comment threads. Moreover, a key phrase analysis using the Sketch Engine indicates great talk to be the most significant key phrase in the corpus. It can thus be concluded that TED users – in the interactions included in the corpus – tend to rate positively the ideas and talks presented on the website.

Finally, the evaluative terms, intensifiers, and quantifiers (columns 4 and 5 in Table 2) indicate that two other patterns identified in the analysis of Appraisal can also be attributed to the TED corpus as a whole. The frequent use of intensifiers and quantifiers (which, in AF, are typical realisations of GRADUATION), their status as keywords, and their relatively even distribution across the 22 files of the TED corpus suggest that the frequent use of GRADUATION is characteristic of the entire corpus. In a similar manner, the unusual frequency and the balanced distribution of positive evaluative terms such as good, great, love (verb), and like (verb) in TEDCor suggests that positive ATTITUDES are often expressed by TED users. The trend also emerges from the list of the 30 most frequent adjectives in the corpus. As evident in Table 6, positive qualifiers – such as good, great, healthy, important, and interesting, as well as adjectives such as real, local, sustainable, and organic (in bold in Table 6), which have positive meanings in the context of TED food-related comments – outnumber negative adjectives such as bad and wrong (in italics).

By showing how particular words are used across the corpus, the corpus analysis confirmed and extended the Appraisal analysis. Firstly, it confirmed that the main topic of conversation in the comments is food, showing that users did not go off-topic; to the extent that they engaged with each other, they did so mainly through their views on food. The analysis of food also confirmed that many of the users who commented on these talks share the same widely-held views about good food (local, organic, fresh) and bad food (processed, junk), as well as a general tendency to align around positive comments, as indicated by their positive appreciation of contextually-relevant keywords such as idea and talk. The argument that users share (and see themselves as sharing) similar views is supported by the analysis of we and our, in that users overwhelmingly used these pronouns to refer to themselves and other users, and their common concerns. Finally, the frequency of intensifiers in the corpus suggests that graduation is a feature across the corpus; TED users share similar opinions and voice them

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**Table 4 & 5. Most frequent collocates for idea and talk (from the Sketch Engine)**

**Table 6. The 30 most frequent adjectives in the TED corpus**
Expanding the Study

As with all linguistic studies, caution must be used in extrapolating from a subset of the total discourse. *Food* is just one of several dozen topics on TED.com, so it may be that comments on a different topic would reveal hostile interactions similar to those identified between Christians and atheists on YouTube by Pihlaja (2011) or very little discussion, as with music videos (Thelwall et al., 2012). For this reason, we conducted a brief ‘control’ study, by selecting three different talks on ‘Technology’ (the largest topic on TED.com, according to Tsou et al., 2014) using the same criteria as for the food threads (representing a range of topics and interaction patterns) and analysing 60 randomly-sampled user comments. The analysis confirms the same general tendency towards positivity and bonding through sharing. Positive AFFECT and APPRECIATION, as well as personal stories, are frequently used by those commenting on technology-related talks to align along commonly-held views, and also to preface (and thus mitigate) disagreement. However, we also observed that, within the various talks grouped under the technology label, some videos attracted more comments than others. For example, a 2010 talk on women and leadership [9] has so far generated 743 comments, as opposed to only 43 comments made on a 2007, 4-minute performance about music downloads and sharing, [10] as also found by Thelwall et al. (2012) for YouTube.

As well as generating more comments, topics such as women and leadership seem to generate more controversy and disagreement among users, with a higher percentage of monogloss, stronger assertions (frequent use of proclaim), and more judgments (both negative and positive) than in food comment threads. This suggests that certain topics attract more strongly-held beliefs and expressions of moral standpoints than others, but that these controversial topics do not always align with the general categories used by the site, such as food or technology. As with technology, we also found a lack of homogeneity within conversations on videos assigned to food (for example, Table 1 shows that positive AFFECT is much more frequent than negative AFFECT in Thread 3 than in the other two threads, possibly because the speaker takes an active part in the discussion). The observation that no pattern is topic-specific strengthens the idea that those patterns that were found in both the food and technology samples are likely to be characteristic of TED comment threads as a whole.

Conclusion

Several conclusions can be drawn regarding the use of language as a solidarity-building resource on TED.com. The frequency of positive appreciations suggests, firstly, that, despite the diversity of opinions that might be expected on an open, global platform such as TED.com, there is also considerable consensus among users: At least, the users who express themselves in these comments tend to rate the talks positively. Secondly, it suggests that the appreciation of ideas is used to express alignment: to comment on other users’ views, to entertain these views even where they disagree, to hedge their own disagreements, and thus to stimulate discussion. The high use of graduation shows that, while the technical affordances of TED encourage debate and dialogue, users go beyond the limits of a debate to express strong feelings or share personal experiences. Users are not only committed to the ideas expressed, they are also willing to disclose personal anecdotes, while at the same time seeking the approval of what they imagine to be a group of like-minded individuals (using focusing strategies to mitigate claims to authority). Their linguistic behavior, both in terms of the choices they make as well as the frequency of such choices, can be understood as an attempt to create bonds and signal affiliation with other site users. Corpus analysis reveals that, despite the distance and other social factors that separate these users, they share not only a common interest in watching TED videos (and a likely investment in ‘TED philosophy’, Tsou et al., 2014, p. 8) but also a worldview regarding food.

The methodological contribution of this study is to highlight how corpus methods can extend the qualitative analysis possible through Appraisal, in order to explore the extent to which patterns of evaluation can be generalized across a dataset and thus be described as potentially characteristic of a wider group. Thus our study can be seen as laying out a methodology for future use with other data sets. Further studies are also needed to explore the functions of evaluative resources emerging from this study: the use of personal stories, which seemed to have a relation-building role, as in Kouper (2010), and the use of unconventional spelling, punctuation and emoticons (which we included as Appraisal resources).

Users’ readiness to express feelings and personal experiences in a public space not only suggests that TED comments have a strong interpersonal quality, rather than a strictly ideational purpose (such as debate or exchange of ideas), but it raises questions about the nature of the imagined audience that users have in mind. Tenor, a key concept in SFL, becomes complex when dealing with large, heterogeneous groups. When reading comments such as “Excellent talk!”, for example, it is uncertain whether users are aware that TED is a public, global platform, or whether they are addressing a more limited audience. Our findings suggest that each thread creates its own context, and by entering the discussion users also engage in the co-construction of affiliations with other users. Through their practices, TED.com users co-construct affiliations through acts of solidarity (as they actively seek to negotiate and come together around shared views) and sociability (the attempt to engage and interact with other users). The presence of shared discourses and views about food and the world in general strengthens the hypothesis that like-minded users tend to cluster around common interest topics.

In terms of the criteria for community discussed earlier, it would appear that members of TED.com share more than a common interest in watching educational videos (criterion 1). Our analysis highlights how TED users orient around shared worldviews regarding food, as well as how users’ evaluations of the TED talks were shaped by attempts to also express solidarity and sociability. Given the lack of ‘sustained interactions’ (criterion 2), what emerges from their interactions is akin to the ‘ambient affiliation’ which Zappavigna (2011) identified on Twitter – a temporary, shifting allegiance to other users based around their shared appreciation of the TED talks. What is important, on Twitter and on TED, is “emotional attachment” (criterion 3), defined here as the apparent need for online users to engage with other users. Furthermore, our analysis revealed several instances in which users comment on what TED is and what it stands for, a characteristic that could be interpreted as a sign of group self-awareness (Herring, 2004). Thus, TED.com might be described as fostering a sense of
community among users which cannot be measured through external criteria such as persistence of interactions, but which can be seen to emerge fleetingly through discursive co-constructions of solidarity and sociability.

As several recent studies indicate, the Internet is increasingly social, while at the same time the number of users on such social platforms, as well as the platforms' semi-public character, mitigate against the formation of long-term, closed groups. The case of TED.com, where, despite its ideas-driven purpose, users come fleetingly together around shared interests and values to form affiliations characterized by solidarity and sociability, may be typical of much Internet interaction. In this environment, linguistic tools such as the Appraisal framework and corpus linguistics can, as we show in this article, work efficiently together as a powerful set of tools for understanding the complex nature of online communication in the age of Web 2.0. The results suggest a need to extend our notions of community in the twenty-first century to encompass the kind of transient, dynamic, and interactionally-constructed affiliations found on sites like TED.com.

Notes

1. Counted with AntConc (Anthony, 2001). Sketch Engine (Kilgarriff et al., 2004) gives a number of 333,059 word tokens.
7. The examples have the following structure: 'Thread Number/User's Initials: User Comment.' All realisations of Appraisal shown in the examples are underlined and signposted with square brackets. For binomial subcategories, - and + indicate negative and positive manifestations.
8. Although not included in Martin and White's (2005) inventory of realisations, we decided to include emoticons such as ‘:)’ and ‘(‘ as multimodal realisations of Appraisal.

References


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