Stance in TED talks: Strategic use of subjective adjectives in online popularisation

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Abstract

This paper analyses "stance" in TED (Technology, Entertainment, Design) talks, which are popularising speeches aiming at knowledge dissemination. Based on a corpus of the TED talks presented between 2006 and 2012, this study focuses on how the speakers express judgments and take up positions through subjective adjectives. Drawing upon Kerbat-Orecchioni (1980) and Felices Lago's (1997) adjective classifications, the quantitative and qualitative study attempts to analyse the use of axiological evaluative adjectives, which are fully subjective, as they imply a qualitative evaluation adding a judgement to the modified noun. It has been noticed that TEDsters use vivid, descriptive subjective adjectives to establish a connection with the audience, which perceives a sense of similarity with the speaker. Like traditional scientific presentations, TED talks use adjectives conveying the relevance of their findings, while they distinguish themselves for the role given to aesthetic and emotional adjectives, practicality and veracity, also including the moral, political, and economic aspects involved in science. The work suggests that maybe TEDsters' approach to science might possibly contribute to breach the expert/non expert barrier, considering science not as something distant, but as a human experience for both laypersons and professionals.

Keywords: stance, TED talks, online knowledge popularisation, subjective adjectives, axiological and non-axiological adjectives, science discourse.

Resumen

La voz de autor en las charlas TED: Uso estratégico de adjetivos subjetivos en la popularización online

El presente trabajo analiza el concepto de "voz del autor" en las charlas TED (Technology, Entertainment, Design), que son charlas de popularización del

conocimiento científico. Basándome en un corpus de charlas TED presentadas entre 2006 y 2012, este estudio analizo la manera en la que los hablantes expresan juicios y muestran su posicionamiento mediante el uso de adjetivos subjetivos. Utilizando las clasificaciones de adjetivos de Kerbat-Orecchioni (1980) y Felices Lago (1997), el estudio cuantitativo y cualitativo tiene como objetivo analizar el uso de adjetivos evaluativos axiológicos, totalmente subjetivos, entendiendo que ellos comunican de forma implícita una evaluación cualitativa, al añadir un juicio de valor al nombre modificado. Se observa que los TEDSters emplean adjetivos vívidos, descriptivos y de carácter subjetivo para conectar con la audiencia, quien percibe una relación de igual a igual con este hablante. Al igual que las presentaciones científicas tradicionales, en las TEDs los presentadores utilizan adjetivos para expresar o verbalizar la relevancia de los hallazgos científicos, a la vez que distinguen entre el papel estético y el emocional, lo práctico y lo veraz, o incluso aluden a aspectos morales, políticos y económicos de la ciencia. El estudio sugiere que quizás la divulgación de la ciencia en las TEDs podría contribuir a romper la barrera entre el experto y el no experto. La ciencia debe por tanto considerarse no como algo distante, sino como un a experiencia humana tanto para los no expertos como para los profesionales.

Palabras clave: voz del autor, charlas TED, popularización online del conocimiento, adjetivos subjetivos, adjetivos axiológicos y no axiológicos, discurso de la ciencia.

Introduction

This paper would like to analyse the feature of "stance" in TED talks, which are popularising speeches aiming at knowledge dissemination. TED is a non-profit organisation devoted to the dissemination of "Ideas worth spreading", which started out in 1984 as a conference for the diffusion of technology, entertainment, and design (hence TED), and in 2006 it started hosting videos of its conferences on its website (www.ted.com). Though there are several genres of knowledge communication and popularization that have recently captured discourse analysts' interest, this work would like to focus on TED talks, as they differ from other forms of popularisation because its videos are provided with transcriptions, translations, a blog, and a comment area, giving rise to a phenomenon of genre and modality mixture. Caliendo (2012: 101) gives a very useful insight into why TED could be considered as a "new hybrid genre":

> [TED talks] discursive hybridity stems from the fact that they are similar to newspaper articles in that they prioritise results rather than methods

> (Bamford 2012). Not dissimilarly from university lecturers, TED talks are "planned speech events" (Salvi 2012: 75) during which speakers often employ multimedia resources such as visuals, music or filmed extracts. Like conference presentations, TED talks have a limited time slot, which cannot exceed eighteen minutes. Unlike other spoken dissemination genres such as public lectures, TED presenters display a certain degree of informality and colloquialism in their delivery: implicit acknowledgment of role symmetry, which translates into a wider use of deictic elements, second person pronouns, inclusive 'we', first person narrative, personal asides and humour.

Moreover, TED constitutes an innovation within this innovation, as it brings experts directly into contact with the audience, breaching the typical "expert-mediator-audience" triangularisation used in popularisations. In this perspective, other preliminary works on TED talks (Caliendo, 2012; Caliendo & Compagnone, 2013; Scotto di Carlo, 2014) have started to analyse the process that recontextualises scientific speeches into TED talks presented by their own authors using several discursive conventions to negotiate their role as experts and to establish a closer relationship with their audience. These works have drawn upon Critical Discourse Analysis and above all upon Hyland's (2010: 117) concept of "proximity":

> I use the term proximity here to refer to a writer's control of rhetorical features which display both authority as an expert and a personal position towards issues in an unfolding text. It involves responding to the context of the text, particularly the readers who form part of that context, textually constructing both the writer and the reader as people with similar understandings and goals.

Some of the typical aspects of TED talks outlined in these studies are the inclusion of personal stories, meta-references relating to the TED context, and the use of humorous openings; they have also noticed the replacement of terminology, acronyms, difficult structures, and references with a series of explanatory strategies (e.g. definitions, paraphrases, or reformulations), which allow non-experts to understand topics that might be tedious if not explained. These explanatory features are frequently integrated with the use of visuals: diagrams, pictures, and videos are typical of TED talks because they help the audience understand every sequence and process (Caliendo, 2012; Caliendo & Compagnone, 2013; Scotto di Carlo, 2014).

However, this new genre is only starting to be studied. For this reason, this paper would like to proceed deeper into a specific aspect of analysis on how

"stance" in TED talks differs from canonical scientific presentations. For this reason, the study will have a focus on the use of evaluative and emotive adjectives as a means to convey speakers' stance and audience engagement.

Evaluation is "the expression of the speaker or writer's attitude or *stance* towards, viewpoint on, or feelings about the entities or propositions that he or she is talking about" (Thompson & Hunston, 2000: 5). In fact, according to Hyland (2002: 1093), "stance" allows to convey a range of cognitive and a□ ective meanings establishing the speakers' commitment to their words and a relationship with their audience. Evaluation and evaluative adjectives in particular also allow audience engagement, which is an alignment dimension of interaction in which writers acknowledge and connect to their audience, focusing their attention, including them as discourse participants, and guiding them to interpretations (Hyland, 2005). Moreover, expressing personal opinions through emotive and evaluative adjectives is also a means to show how the author is truly involved in what he is saying and how deeply he is exposing himself.

In the light of the above, the use of evaluative and emotional adjectives in TED talks seems an endemic characteristic of these speeches, because it differentiates them from other forms of popularising texts and canonical scientific presentations in general. In fact, when writing for a peer audience, experts carefully handle their claims to avoid overstatements. These texts are full of hedges and other devices that allow writers to comment on their findings with a certain degree of caution (Hyland, 2004). On the contrary, TED talks emphasise the uniqueness, rarity, or originality of their findings by the use of linguistic features that amplify the certainty of their claims, and indicate the speaker's affective responses to the research, pointing out what is important and encouraging the audience to engage with the topic.

By using accessible language, presented with very detailed and captivating descriptions and a high number of occurrences of subjective non-axiological adjectives, TED transforms knowledge dissemination into an entertaining event that makes science accessible and acceptable to general audiences. This feature makes TED talks similar to the genre of fiction, which according to Biber et al. (1999: 508-509):

> […] uses a wider range of descriptor adjectives than any other register taken from the full range of semantic domains. These forms add the descriptive detail characteristic of fictional narrative.

This is perfectly in line with the aim of TED, i.e. to inform while engaging the audience in an entertaining way. Moreover, these talks are characterised by frame and role shifting, which are partly intentional and strategic: by describing their findings in an audience-friendly way, TED speakers re-establish their role as guides – and sometimes entertainers – with the ultimate aim of divulgating knowledge with a social purpose. Thus, it could be said that the re-contextualization of scientific knowledge performed by TEDsters to satisfy the needs of the heterogeneous audience involves both reconstructing their arguments and re-encoding them by means of interdiscursivity.

Corpus, theoretical framework, and methodology

Especially in didactic genres such as popularisations, evaluation is used to convey the speakers various roles (the pedagogical, the professional, and the self-promotional), becoming a persuasive strategy used to enhance credibility and thus the acceptance of the knowledge presented (Samson, 2006). Moreover, evaluation is used to engage the audience creating a stronger speaker-audience connection expressed through non-linguistic items (e.g. intonation, facial expressions, and visuals) and linguistic elements, including phonological, lexico/grammatical, and textual devices (Thompson & Hunston, 2000: 6). However, one of the most prototypical means used to convey evaluation is evaluative adjectives (Wiebe, 2000; Swales & Burke, 2003: 2). They are used in argumentation and persuasion as they can reveal the speakers' attitude by highlighting the interpersonal relations between the speaker and the audience (Soler, 2002).

The initial hypothesis of this work is that TEDsters use adjectives to express their positions and judgements, which allow engaging the audience by showing how they are truly involved in sharing and explaining the results of their research.

In fact, evaluative and emotive adjectives can be considered a strategic device within the Aristotelian category of "pathos", i.e. appeals to emotions and personal opinions to establish a connection with the audience, which feels a sense of similarity with the speaker; in other words, they let the audience perceive the speaker as someone who is just like them (Scotto di Carlo, 2014). They also help the audience not only remember – like an "emotional glue" that makes us remember what has an emotional importance for us –

but it also triggers the audience to act upon the speaker's call-to-action. In Trevarthen's (1992: 26) words:

> Human emotions are interactive in that our emotions when perceived by another can change that person's feelings and motives. Emotions of pleasure and excitement provide the emotional glue to maintain interaction.

As already noticed in other studies (Caliendo, 2012; Scotto di Carlo, 2014), TED talks reveal a particular emphasis on evaluation and on appeals to pathos in general. As for other forms of popularisation (see Shinn & Whitley, 1985), "pathos" seems to be one of the main elements that differentiate these talks from canonical scientific presentations. In fact, in the latter, the frequent use of hedges such as "suggests", "propose", "report", "argue", "claim", and the almost total absence of evaluative and emotive adjectives, is due to the speakers' will of trying to be as objective as possible, limiting emotive and overcertain expressions (Hyland, 2004). On the contrary, TED talks tend to replace all hedges by explicitly expressing opinions and emotions linked to the topic of the speeches. They are supposedly rich in evaluative adjectives indicating the speakers' affective response and position while trying to engage the audience through an informal and emotive tone.

There are numerous classifications of adjectives that adopt morphological, syntactic, semantic, functional, and pragmatic criteria (e.g. Halliday, 1985; Tucker, 1997; Hunston & Francis, 2000: 188-191; Wiebe, 2000; Swales & Burke, 2003; Samson, 2006). For the purposes of this work, this study will apply a functional-pragmatic classification provided by Kerbrat-Orecchioni (1980: 111-113). This functional approach has been chosen because it is hypothesised that the use of subjective emotional and evaluative adjectives is intentionally chosen by TEDsters as functional to the transformation of their presentations into a more personal experience with the audience. This classification identifies two categories of adjectives depending on their role: objective adjectives, which enunciate a quality independent from the enunciator (e.g. "single", "red", "masculin"), and subjective adjectives, that imply an emotive reaction or value judgement. The subjective class is further divided into emotional (e.g. "dear", "strange", "painful") and evaluative adjectives. Evaluative adjectives include axiological and non-axiological adjectives. The latter imply a qualitative or quantitative evaluation of the modified noun and do not reflect any emotional compromise on the part of the speaker/writer. Having a gradual nature, adjectives denoting size,

quantity, and temporal expressions belong to this category. On the contrary, axiological evaluative adjectives are fully subjective, as they imply a qualitative evaluation, adding a judgement to the modified noun. Consequently, they are subjective, and they reveal some peculiarities about the speaker's cultural or ideological background, though the subjective degree varies according to the evaluation parameter on which the adjectives depend. Kerbrat-Orecchioni's classification is schematised in Table 1 below:

Objective	Subjective	Evaluative	
		Non-axiological	Axiological
Single/Married	Happy	Abundant	Correct
Male/female	Pathetic	Hot	Nice
	Heartbreaking	Large	Good

Table 1. Kerbrat-Orecchioni's (1980) adjectives classification.

On the basis of Kerbat-Orecchioni's classification, this study has analysed a corpus of the 1,386 TED talks presented in English between 2006 and 2012, for a total of about 3 million tokens. This corpus has been prepared for a recent research project of the department of Modern Philology of the Federico II University of Naples (Italy), to which the author has contributed. The corpus is divided into five macro-areas: Arts and Design, Business, Education and Culture, Politics and Global issues, and Science and Technology, as can be seen in Table 2.

Field	Abbreviation	TED talks	Tokens
Arts and Design	(AR/DS)	342	732,795
Business	(BS)	135	332,533
Education and Culture	(ED/CL)	293	706,584
Politics and Global Issues	(POL/GL)	370	891,007
Science and Technology	SC/TC	246	598,154
TOTAL		1,386	3,261,073

Table 2. Corpus of TED talks 2006-2012.

The analysis of the axiological adjectives retrieved through Kerbrat-Orecchioni's classification will be further studied following Felices Lago's functional classification, which refers to the hierarchy of axiological dimensions at an intralinguistic level (1997: 105). This classification has been chosen because according to this author, axiological levels do not presuppose that certain values are higher (or better values) than others, as they are not hierarchical according to the religious or ideological point of

view of philosophers or individuals, but rather to what is perceived by the vast majority of speakers of a linguistic community, as well as the result of an exhaustive scrutiny of empirical data. From a linguistic perspective, axiological evaluation of adjectives is divided into multilevel categories, as can be seen in Table 3.

GOOD
Aesthetics
Intellect
Function/ Pragmatism
Vitality
Veracity
Prominence
Economy/ Material
Emotion/ Behaviour
Religion
BAD

Table 3. Prototypical evaluative terms (Felices Lago, 1997: 105).

The qualitative analysis will be integrated with quantitative results obtained with the aid of two softwares: AntConc 3.2 (Anthony, 2014) and TreeTagger (Schmid, 2014). TreeTagger has been used for its part-of-speech tagging, and so it has been fundamental to retrieve the adjectives from the corpus. However, to conduct a significant corpus-based analysis of evaluation, it has been necessary to consider the context of the data. For this reason, AntConc 3.2 (Laurence, 2014) was used to further analyse the corpus. The analysis of the adjectives in such a vast corpus has not been easy, as it has required manual analysis for disambiguation. However, an investigation on evaluative and emotive adjectives in particular could be important for a corpus-based research on the popularising genre of TED talks, as greater attention has usually been given to other grammatical categories such as nouns and verbs and to written forms of popularisation. Second, since we expect adjectives to be a much represented sample of special language, we are interested in studying them to contribute to a better understanding of the language of TED talks.

In order to proceed to the analysis of the adjectives, the corpus was tagged using TreeTagger, which divides adjectives into JJ (adjectives) JJR (comparatives), and JJS (superlatives). The list obtained was then manually cleaned to verify the correctness of the results. Based on this analysis, the final total number of occurrences of the tags JJ, JJR, and JJS in the corpus is 137,681. As we have seen, the overall corpus consists of 3,261,073 tokens. This means that there is a ratio of 3,261,073/137,681=23.7, and thus one word out of 24 is an adjective in the corpus.

At this stage, from a qualitative perspective, the adjectives were then manually classified by drawing upon Kerbrat-Orecchioni's (1980: 111-113) pragmatic classification, which identifies two categories of adjectives depending on their role: objective adjectives, enunciating a quality independent from the enunciator, and subjective adjectives, implying an emotive reaction or value judgement. The qualitative analysis showed that the adjectives could be divided into 57,618 objective adjectives, and 80,063 subjective adjectives, the latter including 4,306 superlatives and 7,803 comparatives. Based on these preliminary data, it was decided to focus on the subjective adjectives, as they do not only represent the majority of the adjectives in the corpus, but also because they are supposed to contribute to the level of subjectivity of the talks. The analysis included all the occurrences of adjectives contained in the corpus.

Discussion

Table 4 below shows a list of the top 100 most frequent adjectives in the corpus, ordered by number of occurrences (O):

Observations have shown that the data could be further classified on the basis of some frequent semantic categories. For this reason, all the subjective adjectives resulting from the analysis of the corpus were further manually queried according to Kebrat-Orecchioni's axiological/non-axiological classification. The analysis revealed that a majority of 44,218 adjectives belonged to the axiological group and 35,845 were classifiable as non-axiological. The non-axiological adjectives were then classified into the gradable categories of quantity, colour, position/direction/order, dimension, relation, time-age, material/fabric, and weather/temperature related conditions. Table 5 illustrates the ten adjectives with the highest number of occurrences (O) for each category.

Certainly, it can be noticed that most of these adjectives belong to the category of descriptors, rather than classifiers. As TED talks are rich in storytelling, this is not fortuitous: storytelling is one of the main strategies used by TEDsters to enhance knowledge dissemination, inspire their listeners, and enrich their learning process while creating strong ties. By using accessible language, presented with very detailed and captivating descriptions and a high number of occurrences of subjective non-axiological adjectives, TED transforms knowledge dissemination into an

Rank	O	Token	Rank	O	Token	Rank	O	Token
1.	2,679	Little	34.	351	Early	67.	204	Ready
2.	2,306	Different	35.	351	Easy	68.	203	Cool
3.	2,301	Good	36.	349	Incredible	69.	199	Successful
4.	2,234	Many	37.	324	Low	70.	196	Critical
5.	2,194	New	38.	308	Normal	71.	194	Healthy
6.	1,588	Great	39.	308	Poor	72.	192	Okay
7.	1,475	Big	40.	306	Short	73.	191	Crazy
8.	1,397	Important	41.	281	Nice	74.	190	Impossible
9.	1,238	Few	42.	277	Clear	75.	184	Expensive
10.	1,094	Old	43.	277	Complex	76.	181	Hot
11.	960	Long	44.	275	Major	77.	180	Creative
12.	932	Much	45.	270	Light	78.	175	Complicated
13.	860	Interesting	46.	268	Deep	79.	175	Enormous
14.	841	Small	47.	258	Tiny	80.	174	Specific
15.	755	Simple	48.	256	Moral	81.	174	Worth
16.	734	High	49.	255	Basic	82.	172	Fantastic
17.	705	Bad	50.	246	Average	83.	171	Favorite
18.	612	Possible	51.	245	Several	84.	171	Various
19.	600	True	52.	242	Dark	85.	169	Ancient
20.	585	Hard	53.	239	Positive	86.	169	Famous
21.	575	Young	54.	236	Special	87.	168	Dangerous
22.	561	Wrong	55.	234	Top	88.	167	Obvious
23.	544	Beautiful	56.	233	Extraordinary	89.	166	Terrible
24.	538	Large	57.	232	Smart	90.	163	Useful
25.	521	Amazing	58.	231	Similar	91.	161	Familiar
26.	504	Huge	59.	231	Strong	92.	155	Strange
27.	496	Particular	60.	227	Perfect	93.	151	Effective
28.	442	Happy	61.	225	Exciting	94.	150	Emotional
29.	442	Wonderful	62.	222	Serious	95.	150	Unique
30.	385	Difficult	63.	219	Rich	96.	149	Late
31.	376	Powerful	64.	208	Main	97.	148	Massive
32.	364	Enough	65.	207	Safe	98.	145	Aware
33.	355	Interested	66.	204	Fundamental	99.	145	Remarkable
						100.	143	Significant

Table 4. 100 most frequent subjective adjectives in the corpus.

O	Quantity	O	Colour	O	Position	O	Dimension
2,364	Many	270	Light	60	Distant	2,679	Little
1,238	Few	242	Dark	35	Near	1,475	Big
932	Much	80	Bright	37	Far	960	Long
364	Enough	23	Colorful	20	Nearby	841	Small
246	Average	4	Dark	7	Lower	538	Large
245	Several	4	Pale	734	High	504	Huge
171	Various	3	BLuish	4	Farthest	324	Low
148	Massive	3	Bright	3	Low	306	Short
100	Multiple	3	Brownish	2	Distant	258	Tiny
63	Infinite	3	Candid	1	Below	175	Enormous

O	Relational	O	Material or consistency	O	Age and time	O	Weather and temperature
308	Normal	57	Soft	2194	New	139	Cold
268	Deep	50	Thick	1094	Old	71	Warm
231	Similar	37	Smooth	575	Young	24	Mild
227	Perfect	3	Crisp	351	Early	181	Hot
208	Main	3	Crunchy	169	Ancient	2	Chilly
127	Central	3	Woody	149	Late	1	Chilled
124	Cheap	1	Wooly	139	Quick	1	Cooling
109	Complete			128	Recent	1	Hot
86	Regular			100	Fast	1	Warm
81	Equal			88	Slow		

Table 5. 10 most used subjective non-axiological adjectives.

entertaining event that makes science accessible and acceptable to general audiences.

Moreover, the description of the physical qualities of the objects under discussion allows reaching the audience in a way that a typical scientific lecture would maybe not be prone to do. In some cases, the use of gradable adjectival descriptors creates a sort of synaesthesic context. For instance, in the following examples, the use of descriptive adjectives allows the audience to perfectly imagine the situation, re-living it:

(1) Rome is a city full of surprises. I mean, we're talking about unusual perspectives, we're talking about *narrow little* winding streets that suddenly open into *vast*, sun-drenched piazzas – never, though, piazzas that are not humanly scaled. Part of the reason for that is the fact that they grew up organically. That amazing juxtaposition of *old* and *new*, the bits of light that come down between the buildings that sort of create a map that's traveling above your head of usually blue – especially in the summer – compared to the map that you would normally expect to see of conventional streets. (*David Macaulay's Rome Antics* - FEBRUARY 2002)

(2) This is a wine-buying experience simplified by color and taste. *Fizzy, fresh, soft, luscious, juicy, smooth, big and sweet* wines, all explained to you by color and texture on the wall. And finally, it's about entertainment, as in his headquarters for the Cirque du Soleil, Orlando, Florida. (*Reed Kroloff on modern and romantic architecture* - FEBRUARY 2003)

(3) The next artist is Kay Overstry, and she's interested in ephemerality and transience. And in her most recent project, it's called "Weather I Made." And she's making weather on her body's scale. And this piece is "Frost." And what she did was she went out on a *cold, dry* night and breathed back and forth on the lawn to leave – to leave her life's mark, the mark of her life. And so this is five-foot, five-inches of frost that she left behind. The sun rises and it melts away. (*Shea Hembrey: How I became 100 artists* - MARCH 2011)

The emotions triggered by these descriptive adjectives let the audience perceive the speaker as someone who is "just like them", opening many more pathways than words alone could do. Only an appeal to what deeply moves the audience, making them feel the same emotions that the speaker feels ("pathos"), can achieve the ultimate aim of persuading the audience towards the intention of the speech. As the TED talk communication expert Dlugan (2013: para. 21) summarises:

> If you utilize pathos well, your audience will feel the same emotions that you do. Your audience will feel the pain, the joy, the hope, and the fear of the characters in your stories. They will no longer be passive listeners. They will be motivated to act.

In fact, the majority of the adjectives used in the corpus belong to the axiological group, that is to say, they express personal opinions. This is in line with the spirit of TED talks and popularisations in general, which emphasise the uniqueness, rarity, or originality of their findings by the use of linguistic features that indicate the speaker's affective responses to the research (Hyland, 2004, 2005). TED talks are characterised by a broad range of aesthetic and emotive adjectives that are intended to provoke an emotional reaction.

Tables 6 and 7 include the quantitative results deriving from an analysis of the axiological adjectives retrieved using Felices Lago's (1997: 105) functional classification scale, which divides axiological adjectives into ten semantic groups: aesthetics, emotion, behaviour, function, pragmatism / prominence intellect, veracity, general qualities, vitality, religion / politics / ethics, and economy / material (Table 6), as explained in the second paragraph of this work. For sake of space, although the results relate to all axiological adjectives contained in the corpus, Table 7 includes a list of the ten most used adjectives for each group:

Axiological Categories	O
Aesthetics	10,464
Emotion/behaviour	8,965
General qualities	5,743
Function/pragmatism	5,464
Prominence	5,405
Intellect	4,222
Veracity	2,143
Religion/politics/ethics	666
Vitality	633
Economy/material	513
TOTAL	44,218

Table 6. Axiological adjective classification on the basis of Felices Lago's (1997) classification.

Aesthetics		Emotion		Genneral Qualities		Function/ Pragmatism	
Great	1,623	Happy	449	Good	2,391	Simple	766
Beautiful	554	Exciting	226	Better	1,007	Hard	587
Amazing	528	Serious	223	Best	820	Difficult	387
Wonderful	446	Safe	207	Bad	711	Powerful	378
Nice	289	Okay	192	Positive	239	Easy	355
Special	244	Crazy	196	Worse	198	Complex	277
Extraordinary	234	Favorite	174	Worst	152	Ready	204
Cool	207	Dangerous	174	Negative	125	Complicated	175
Greater	195	Terrible	167	Well	100	Worth	174
Fantastic	172	Emotional	151			Useful	163

Prominence		Intellect		Veracity		Religion/Ethics/Politics	
Important	1,398	Interesting	866	Possible	613	Moral	264
Particular	496	Interested	355	True	609	Fair	83
Major	275	Incredible	355	Wrong	561	Sacred	59
Basic	256	Clear	277	Impossible	200	Legitimate	23
Top	234	Smart	232	False	64	Unfair	22
Fundamental	205	Creative	180	Correct	42	Coherent	13
Successful	210	Obvious	187	Probable	9	Immoral	15
Critical	196	Familiar	161	Improbable	8	Supernatural	13
Famous	169	Aware	145	Faulty	7	Divine	12
Remarkable	146	Intelligent	124	Righteous	7	Corrupt	11

Vitality		Economy	
Healthy	195	Expensive	186
Painful	72	Poorest	73
Weak	64	Cheaper	66
Lethal	58	Wealthy	42
Tired	47	Richest	25
Vital	46	Poorer	23
Healthier	33	Inexpensive	22
Deadly	22	Balanced	14
Bloody	20	Cheapest	10
Lazy	19	Ludicrous	9

Table 7. Ten most used adjectives for each of Felices Lago's 1997 classemes.

The majority of the adjectives are used to express aesthetic appreciation and emotive reactions. Human aesthetic processing entails the sensation-based evaluation of an entity with respect to concepts like beauty, harmony or well-formedness. It is maybe for the link between aesthetics and emotions that the second most used category is the one including emotive adjectives. According to studies on scientific and academic presentations (Swales, 1990: 156), "since eliciting writers' own feelings without support or evidence of authentic and authoritative references is usually not encouraged, aesthetic and especially emotive adjectives are quite rare in academic writing". These texts rather prefer to rephrase or "institutionalise" (Martin, 2000: 156) the expression of aesthetic and emotive adjectives: semantic choices of emotional values towards people's behaviour are institutionalised as judgement values; institutionalisation of feelings towards aesthetics and values of "things" become appreciation values. On the contrary, in TED

talks, the speakers clearly express their evaluation of aesthetic appreciation and emotive reactions, adding their personal involvement in what they are saying. Some examples are given below:

(4) His name's Buddy MacMaster, and just a *wonderful* guy, and we have a *great* tradition at home called square dancing, and we had parties, *great* parties at our house and the neighbours' houses, and you talk about kitchen cèilidhs. (*MacMaster + Leahy play the fiddle* - FEBRUARY 2003)

(5) I'm not talking about designing telephones that look like that, and I'm not looking at designing architecture like that. I'm just interested in natural growth patterns, and the *beautiful* forms that only nature really creates. (*Ross Lovegrove shares organic designs* - FEBRUARY 2005)

(6) I may feel *sorrowful, or happy, or exhilarated, or angry* when I play certain pieces of music, but I'm not necessarily wanting you to feel exactly the same thing. (*Evelyn Glennie: How to truly listen* - FEBRUARY 2003)

(7) My TED wish: there's a vital story that needs to be told, and I wish for TED to help me gain access to it and then to help me come up with *innovative and exciting* ways to use news photography in the digital era. (*James Nachtwey: My photographs bear witness* - MARCH 2007)

In TED talks, aesthetic and emotive adjectives seem to perform a heuristic but also pedagogical function, in which both the speakers and the audience are involved in a psychological and cultural path of learning. First, the use of these types of adjectives allows the speakers to convey their knowledge humanising the intellectual experience, getting close to what the audience feels. As a speaker, the overall goal is to create a shared emotional experience with the audience, by being aware of the full range of emotions, deciding which emotion to evoke, and how they can be elicited. On the other hand, these adjectives will not only allow the audience to more likely understand the speaker's perspective, but they will also guide the audience to accept his/her claims, and thus it will be more prone to act on the speaker's call-to-action. Then, these aesthetic and emotive adjectives are crucial in knowledge dissemination, as they appeal to the audience's sense of identity, self-interest, and emotions, to spread its "ideas".

Moreover, looking at the quantitative data, it can be noticed that most of the adjectives attribute positive aesthetic or emotive properties. By expressing a positive evaluation, the speakers emphasise the noteworthiness of the content of their talks and they anticipate the audience's reaction and emotions. These positive adjectives emphasise the beauty of knowledge and

all the positive aspects that are connected to the world of science, technology, and arts.

Some classes of adjectives highlight the similarity of TED with other knowledge dissemination genres. For instance, a high percentage of adjectives express prominence, intellect, and pragmatic functions, as would be expected in canonical scientific presentations or papers. They tend to emphasise the relevance and importance of their contribution within the academic/expertise community. This feature is also present in TED, which uses straightforward and sometimes sensational adjectives to emphasise the importance of the conclusions of their research:

(8) SPEAKER A: I'm here today representing a team of artists and technologists and filmmakers that worked together on a *remarkable* film project for the last four years. And along the way they created a breakthrough in computer visualization.

(9) Let me describe the most *important* conclusion from the physics – first, from Earth's energy balance and, second, from Earth's climate history. (*Ed Ulbrich: How Benjamin Button got his face* - FEBRUARY 2009)

(10) And finally, *one of the most interesting* projects – it's a courthouse. And what I want to talk about – this is the Supreme Court, of course – and, well, I'm dealing with Michael Hogan, the Chief Justice of Oregon. (*Jeff Han demos his breakthrough touchscreen* - FEBRUARY 2006)

(11) So, I said, OK, this proves my theory about learned paralysis and the *critical* role of visual input, but I'm not going to get a Nobel Prize for getting somebody to move his phantom limb. It's a completely *useless* ability, if you think about it. But then I started realizing, maybe other kinds of paralysis that you see in neurology, like stroke, focal dystonias (…) (*VS Ramachandran: 3 clues to understanding your brain* - Filmed MARCH 2007)

(12) We're in a culture of guru-ship. It's so *hard* to use some software because, you know, it's *unapproachable*, people feel like they have to read the manual. (*Ze Frank's nerdcore comedy* - FEBRUARY 2004)

As in scientific presentations, these speakers tend to conclude or introduce their speeches by commenting on how their results will add to the scientific community, in a clear, accurate, and concise way. However, a more thorough analysis of the adjectives expressing prominence, intellect, and functional qualities presented in the corpus, reveal that there is more emphasis on the pragmatic consequences in everyday life and how they contribute to the

promotion of world progress. This feature is also enhanced by a minimum use of hedges and thus a more direct way of revealing the importance of a scientific contribution. It is also for this reason that TED talks present a broad use of veracity adjectives. Using clear-cut statements on the veracity of a concept, these speakers explicitly express their opinions on veracity or probability, without understating their conclusions:

(13) *It's possible! It's possible! You can do it! You can do it!* Use less your car! Make this decision! Avoid carbon emission! It's possible! It's possible! You can do it! You can do it! Live closer to work! Work closer to home! Save energy in your home! (*Jaime Lerner sings of the city* - MARCH 2007)

(14) You probably assume that because the iPhone was designed in California but assembled in China that the West still leads in terms of technological innovation. *You're wrong.* In terms of patents, there's no question that the East is ahead. Not only has Japan been ahead for some time, South Korea has gone into third place, and China is just about to overtake Germany. (*Niall Ferguson: The 6 killer apps of prosperity* - JULY 2011)

(15) You all know this though, but sometimes people use this analysis idea, that things are outside of ourselves, to be, say, that this is what we're going to elevate as the *true*, most important sciences, right? And then you have artists, and you all know this is *true* as well, artists will say things about scientists because they say they're too concrete, they're disconnected with the world. (*Mae Jemison on teaching arts and sciences together* - FEBRUARY 2002)

Furthermore, an aspect that is usually not overtly stated in traditional scientific discourse is the broad range of adjectives expressing issues related to morality, economy, politics, or religion. TEDsters give first person opinions on these aspects that are more hedged and not overtly expressed in typical lectures:

(16) SPEAKER N: We were fighting for our freedom. If killing in a war is a crime, then you have to charge every soldier in the world. War is a crime, yes, but I did not start it. You too are a retired General, not so?
SPEAKER Q: Yes, correct.
SPEAKER N: So you too must stand trial then. Our government was *corrupt*. Lack of education was their way to control power. If I may ask, do you pay for school in your country?
SPEAKER Q: No, we don't.

SPEAKER N: You are *richer* than us. But we pay for school. Your country talks about democracy, but you support corrupt governments like my own. Why? Because you want our diamond. Ask if anyone in this room have ever seen real diamond before? No. (*Newton Aduaka tells the story of Ezra* - JUNE 2007)

(17) If we vacillate, hesitate, and do not actually develop these therapies, then we are condemning a whole cohort of people – who would have been young enough and healthy enough to benefit from those therapies, but will not be, because we haven't developed them as quickly as we could – we'll be denying those people an indefinite life span, and I consider that that is *immoral*. That's my answer to the overpopulation question. (*Aubrey de Grey: A roadmap to end aging* - JUNE 2007)

(18) Then I said, all this is good, but I want to paint like a real painter. American education is so *expensive*. I was in India, and I was walking down the streets, and I saw a billboard painter. And these guys paint humongous paintings, and they look really good. And I wondered how they did it from so close. (*Raghava KK: My 5 lives as an artist* - FEBRUARY 2010)

(19) If you could then find a financing mechanism that meant that the *poorest* countries that had been hurt by our inability to deal with climate change over many, many years and decades are given special help so that they can move to energy-efficient technologies, and they are in a position financially to be able to afford the long-term investment that is associated with cutting carbon emissions, then you are treating the world equally, by giving consideration to every part of the planet and the needs they have. (*Gordon Brown on global ethic vs. national interest* - JULY 2009)

By expressing personal moral, political, and religious opinions, these speakers reveal how they are personally concerned with how something "should be" (what should be done, how it should be, and what is right or wrong). Science in general is more concerned with what is (what the world is like, the true and the false). The use of these aspects also enhances the audience's will to make a change and to disseminate knowledge in turn. When these speakers want to create a positive bond with their audience, the audience responds emotionally to an issue and identifies with the speakers' point of view, creating a connection between the two parties. This is a very powerful tool to establish credibility, because the more the audience feels connected to the speaker, the more efficacious the speech will be.

It could be said that TED talks tend to establish credibility more through values than through credits for publications or working positions. It is the kind of credibility we assign to those people who share our values or embody the values having greater respect and consideration in our society (Gili, 2013). These values in TED do not only concern the scientist's professional values, but also general social values. Thus, summarising, it can be said that though TED talks use adjectives expressing prominence and importance to underline the relevance of their speeches. They distinguish themselves for the role given to adjectives relating to practicality and veracity, and for the emphasis on the aesthetic and emotional aspects of it, also with a focus on the religious, moral, political and economic aspects involved in science.

Conclusions

This paper has analysed the role of "stance" in TED talks, precisely how its experts use evaluative and emotive adjectives as a means to convey judgements and positions and to engage with the audience. The analysis of the corpus through Kebrat-Orecchioni's and Felices Lago's adjective classifications has confirmed that differently from canonical scientific texts, TED talks emphasise the uniqueness, rarity, or originality of their findings by showing how they are truly involved in what they are saying. The majority of the adjectives share a subjective nature, a minor part of which are non-axiological adjectives belonging to the category of descriptors. As in fiction genres, these adjectives are used to tell stories that strategically enhance knowledge dissemination by informing while engaging the audience. The majority of the adjectives belong to the axiological group expressing personal opinions, especially aesthetic appreciation and emotive reactions. It could be thought that maybe the great quantity of adjectives used and their typology is influenced by the fact that the mediator between science and audience/readership is the researcher him/herself and that the entertainment component is quite important, being the talk a live performance. While canonical scientific texts and presentations institutionalise the expression of aesthetic and emotive adjectives, in TED talks the speakers clearly express their evaluation of aesthetic appreciation and emotive reactions, humanising the intellectual experience. As in scientific presentations, prominence and importance adjectives are used to underline the relevance of the speeches; however, in TED talks, these adjectives

emphasise more the pragmatic consequences in everyday life and how these talks contribute to the promotion of world progress. They also distinguish themselves for the role given to veracity, and for the emphasis on the religious, moral, political and economic aspects involved in science, revealing how they are personally concerned with what should be done, and what is right and what is wrong. Therefore, as hypothesised at the beginning of this work, it could be said that TEDsters use adjectives to express their positions and judgements, which allow engaging the audience by showing how they are truly involved in the dissemination of the results of their research and in explaining how they can have a personal impact on everyday life.

Of course, the description of TED as a new hybrid genre is far from being fully explored. The methodology applied in this work to study the use of stance in TED talks did confirm the initial hypothesis mentioned above; however, there are some limitations. For instance, for future studies, it would be interesting to lead some study cases comparing researchers' talks within and outside the TED context, to observe the different way of presenting the same topic in a non-popularised context.

However, it might be possible to think that online scientific knowledge dissemination such as TED could have consequences not only for their influence on audiences, but also on experts' lives. With the advent of new education and institutional channels of communication, the success of knowledge dissemination depends on how experts contribute to the way in which the audience approaches science not as something distant and separate, but as a heritage belonging to the whole community. Through TED, experts might contribute to the "humanisation" of knowledge, establishing an interpersonal proximity with the audience, which could feel part of the knowledge and discovery event.

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NOTES

[1] All the excerpts that will be used as examples throughout the work are fully available at: www.TED.com.

[2] AntConc is freely available at: http://www.antlab.sci.waseda.ac.jp/antconc_index.html. TreeTagger is available at http://www.cis.uni-muenchen.de/~schmid/tools/TreeTagger/ (Last accessed: June 2014).