

Exploring Identity through Appraisal Theory: a Corpus Annotation Methodology

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1 Exploring Identity Through Appraisal¹

This paper is concerned with how Appraisal Theory (Martin and White 2005) can be used to shed light on the identity that writers/speakers assume when they produce text, and on the identity these text producers assign to the other voices that participate in the text. Further, we present a methodology of corpus annotation which best supports this approach to identity.

The term 'identity' has many meanings, not only between the many fields that make up human practice, but also as we focus in on the field of linguistics. I do not want to enter too deeply into the discussion of what 'identity' is, except to the extent that I will focus on two aspects of 'identity' that can be brought to light through the analysis of text in terms of Appraisal Theory.

Firstly, people identify themselves through association: we declare our identity by affiliating ourselves with socially defined groupings of people. Teenagers declare their identity when they espouse one rock band over all others, and make this declaration multi-semiotically, through the adoption of a look (clothing, hair-style, etc.), and perhaps through a way of speaking (e.g., 'Hey dude'), and even through the way they walk or gesture. This is not only restricted to teenagers, nearly all of us declare our identity as belonging to a particular sub-grouping of society, whether it is as a businessman in a suit, a hippy in a sarong, or as a sportswoman in running shorts.

A second way to explore the identity of individuals is in terms of the set of values they identify with: do they value conservatism over radicalism, ecology over economy, justice over legality, etc. If we can identify the set of social characteristics that an individual values, we have taken a step towards specifying the identity construct of the individual.

The first goal of this paper is to describe how Appraisal Theory can be used to explore identity in terms of both group affiliation (in at least a limited sense), and the value structure of writers. The second goal of the paper is to show how corpus annotation software can be used to achieve these ends. The ideas here can be applied within most corpus annotation environments, although UAM CorpusTool (O'Donnell 2008a, 2008b) will be used for illustration.

2 Preliminary Concepts

Before tackling issues of identity and its investigation through corpus annotation, I will discuss some key concepts that I will assume in later discussion.

Referring to speakers and writers: I will use the term 'author' to refer to the individual (or in some cases, group of individuals) that produces the text in question,

¹ I thank Yasra Hanawi for allowing me to use her Attitude coding of Obama's speech to Egypt.

regardless of whether the text is spoken or written. Where a text is dialogically produced, the text is analysed in terms of a sequence of turns by distinct authors. Some pre-prepared texts (e.g., news articles) are prepared by a number of writers, although they generally write so as to present themselves as a single unified voice, and will be taken to have just a single author.

Appraisal as social semiotic: I assume that language is a meaning making system, and that the meanings that language producers make are not constrained by any sense of reality (if such can be said to exist). Rather, language producers can manipulate the linguistic resources available to them to project any reality they desire (with the proviso that not all projections will produce useful effects). Applying this to the analysis of identity, an author can project any identity, conforming or not with their own sense of identity. The language consumer does not however need to accept an author's projected identity, and are more likely to accept a projection which is closer to their perception of social reality. Reasons for projecting an identity different from one's own perception include re-negotiating one's public identity (presenting oneself as one would like to be perceived, e.g., presenting oneself as creditable so as to convince readers of one's message), adopting the character of another as a joke, or to deceive others, etc.

Multiple voices: Following the standard approach in Appraisal (e.g., Martin and White, 2005), the author is not always the only voice in the text (monoglossic text). Often, writing will report the thoughts or wordings of others (heteroglossic text). For instance, in the following extract, the underlined segment is sourced to the Appeal's Courts, while the part before that is in the voice of the writer of the article:

The Manhattan Appellate Division ruled, in effect, that Liu tried to do an extralegal favor for Teamsters Local 814 at the direct expense of taxpayers.

Note the difference between quoted and reported speech: where an article quotes the exact words of someone, then the source is responsible for their exact wording as well as the contents of what is sourced to them. However, when the speech is reported via indirect (reported) speech, the author of the text may reword the speech, choosing different wordings than those originally used. For instance, in the above extract, it is possible that the court did not actually mention taxpayers at all: this wording may have been chosen by the news writer to emphasise the personal consequences to potential readers.

These secondary voices can themselves import other voices. In the following sentence from the same article, the author introduces the Daily News as a voice, which in turn introduces John Liu as a voice:

When Liu ran for office, the Daily News reported [he had falsely claimed [to have worked as a child in a sweatshop]]

At one level of analysing Identity, we can look at all Attitude tokens that are included in the text, and assess the author's persona in terms of the range of attitude types used. After all, regardless of who is actually sourced as the speaker, it is the author who in the end chooses which reported or quoted speech to include.

However, we can often get a clearer picture by separating out the Attitude tokens expressed by each voice. Just as an author can shape their own projected identity through the appraisal choices they make, the author can paint the identity of the other voices in the text, via the evaluative profile they assign to those voices (who and what do they like or dislike, or affiliate or distance themselves from; what values do they use to evaluate with). By separating out the tokens to each voice, one can separate issues of how the author is construing themselves from how they are construing each of the other voices in the text.

3 Exploring identity in terms of Evaluative Style

A number of works within Appraisal Theory explore how the range and frequency of appraisal resources used within a text or set of texts say something about the writer and their context of writing. Martin and White (2005) call this 'evaluative style', although other terms are used: 'evaluative disposition' (Don, 2007), 'voice' (Coffin, 2002), and 'rhetorical voice' (Derewianka, 2007). Martin and White (2005) express the core idea:

We are concerned with patterns in the use of evaluative resources within texts by which certain types of evaluation and stance are favoured or foregrounded while others occur infrequently, only in restricted settings, or not at all. We report on preliminary findings which suggest that such patterns of use reoccur across groupings of related texts, and postulate the operation of certain conventionalised 'styles' or 'regimes' of evaluative positioning. We conclude that these styles or regimes can be related to particular rhetorical effects and construct particular authorial identities or personas. (p161)

...or in the words of Martin and Rose (2003):

Appraisal resources are used to establish the tone or mood of a passage of discourse, as choices resonate with one another from one moment to another as a text unfolds. That pattern of choices is thus 'prosodic'. They form a prosody of attitude running through the text that swells and diminishes, in the manner of a musical prosody. The prosodic pattern of appraisal choices constructs the 'stance' or 'voice' of the appraiser, and this stance or voice defines the kind of community that is being set up around shared values. (p54)

In part, evaluative style can be explained in terms of the situational conditioning of our meaning potential: in a given context of situation, certain meaning choices are useful, and will thus occur more frequently, while other choices are less useful. For instance, in a discussion of architecture, appreciation of balance and complexity are more functional, and thus more likely to occur, while judgement of veracity and propriety will be less common, or absent altogether.

One particular aspect of context of situation involves the social role (part of tenor) adopted by the writer. In choosing a particular social role, the writer adopts the 'voice' corresponding to that role. For instance, Martin and White (2005) found news reporting to be made up of three distinct writer roles, and thus three different voices: 'reporter voice', 'correspondent voice' and 'commentator voice'. Each of these voices makes use of distinct subsets of the appraisal resources, for instance, the 'reporter' voice does not directly make explicit judgements, although voices quoted in the report do make judgements. Coffin (2002) similarly found three main voices used in history: 'recorder', 'interpreter' and 'adjudicator', each using distinct configurations of appraisal resources.

Peter White (2012) also points out that evaluative style may also be used to mark collective identities, such as nationalities, gender and class, as explored in the work of Ken Tann (e.g., Tann, 2010).

Contextual conditioning and collective identity does not totally explain the evaluative styles adopted by writers. There are personal aspects of evaluative style, conditioned by our individually held social values (what social values do we respect, and which do we devalue), and how do we feel about the individuals and events that we are talking about in our text. An architectural review may nominate that evaluation in terms of balance and complexity will be present, but it is the writer's own tastes in these issues that determine whether these characteristics will be rewarded or penalised. Martin and White (2005:203) introduce the term 'signature' for this aspect of evaluative style, the 'syndromes of evaluation which characterise an individual'.

To a degree, the differentiation between ‘voice’ and ‘signature’ is a cline, corresponding to exploring incrementally decreasing social sub-groupings. While reporters in general may share a ‘reporter’ voice, the reporters for a particular paper may cohere more closely together, being constrained by a ‘house style’. Additionally, writers may copy the signature style of an influential writer, so, the question is, at what point does a particular evaluative style cease to be an individual signature, and start to be a socially shared pattern of communication?

While ‘signature’ assumes a writer will project a continuity of evaluative style across multiple texts, it also happens that a writer will vary in their style across texts: as stated at the beginning of this paper, writers can choose to project different persona in different contexts. Whatever means of analysis we adopt should be able to show both continuity and variations of persona across the texts of a writer.

3.1 Corpus exploration of Evaluative Style

One means of exploring the stylistic identity of an author or group of authors involves analysing a corpus of texts in terms of Attitude. Computational annotation of Attitude can be performed using several available corpus annotation tools. For instance, Peter White used XMLSpy² for many years. Other tools which could be applied for written texts, or spoken text transcripts, include *MMAX2* (Müller and Strube 2006) or *Knowtator* (Ogren 2006). Some tools specifically designed for dialogic annotation (allowing transcription to be linked directly with the audio stream) include *Anvil* (Kipp 2001) and *EXMARaLDA* (Schmidt, 2004). Annotation of Appraisal in a multimodal page layout can be done via new software from Kay O’Halloran, although this software currently lacks the means to retrieve annotation data for statistical analysis, although it is promised for the near future.

For this article, however, we will demonstrate using *UAM CorpusTool 3.0*, (O’Donnell, 2008), free software for MacOSX and Windows.³ This tool is specifically targeted at those doing linguistic research within Systemic Functional Linguistics or related fields, with special facilities included for Appraisal analysis.

The Appraisal Website⁴ provides a coding scheme for Appraisal provided by Peter White and Alexanne Don. This scheme is also shipped with UAM CorpusTool (UAMCT), called ‘Appraisal-max.xml’. This coding scheme (a system network) includes systems for coding Attitude, Engagement and Graduation, and follows closely Martin and White (2005).

However, for coding purposes, I find it better to code the three components of Appraisal on separate layers (i.e., one layer for Attitude, a layer for Engagement, and one for Graduation). This allows the individual researcher to choose whether to code all three components, or to focus on only one or two of them. Even where all three are being coded, it can help coding efficiency to code all Attitude before coding separately for Engagement, and then Graduation. The cross-layer search facilities within UAM CorpusTool means that the coder can later ask for, e.g., all judgement tokens contained within text attributed to a certain voice. For this reason, the appraisal-max coding scheme has been divided into three separate coding schemes: UAM-Attitude.xml, UAM-Engagment.xml and UAM-Graduation.xml.

² <http://www.altova.com/xmlspy.html>

³ <http://www.wagsoft.com/CorpusTool/>

⁴ <http://grammatics.com/appraisal/>

3.2 Coding of Attitude

Figure 1 shows the Attitude network provided by White and Don's Appraisal_max scheme. It provides three simultaneous systems, dealing with *type* of attitude (affect, judgement and appreciation), *polarity* (positive or negative) and *explicitness* (invoked or inscribed).

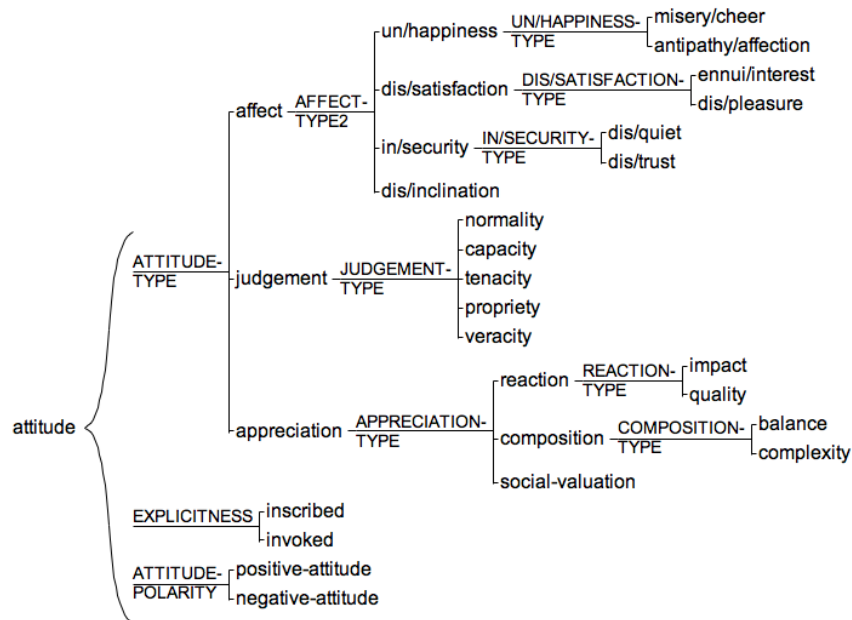


Figure 1: Coding scheme for Attitude as provided in White and Don.

Using UAMCT, the analyst opens a text for annotation at a particular layer (e.g., Attitude), then scans through the text looking for tokens of that type. When one is found, the analyst selects the text, and at the bottom of the screen, steps through the coding scheme assigning features to that segment (e.g., choosing first *judgement*, then *normality*, then *inscribed*, then *positive-attitude*).

Once all texts are coded for the layer in question, the analyst can perform searches (e.g., show all segments selected for both 'tenacity' and 'negative-polarity' in news commentary articles). Another pane of the program also allows statistical studies, e.g., comparing the relative usage of Attitude resources between news commentaries and news reporting articles.

3.3 Coding Sources

Rather than assume that all Attitude tokens are evaluations by the author, we need to add an additional system to distinguish which source is responsible for the token. For instance, one could add a system 'SOURCE' under feature 'attitude' with two features: 'author' and 'other-voice'. To explore the evaluative style assigned to each other voice in the text, an additional system could be added under 'other-voice' providing a name for each voice.

Following the above approach, as one codes each Attitude token, the coder would also be asked to specify a source for each token. UAMCT allows the user to add new features to the SOURCE system on the fly, as new voices are encountered in the text.

In larger studies, one might be less interested in individuals and more with classes of voices, e.g., government officials, union leaders, media reporters, etc. In this case, the SOURCE network could be a hierarchy of such roles. For instance, Figure 2 shows systems for SOURCE with generic voices.

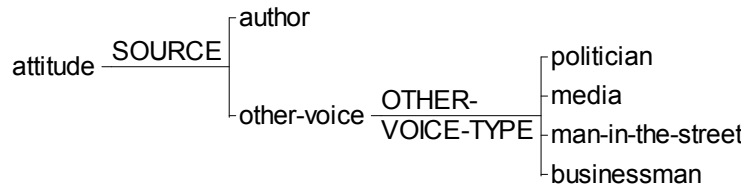


Figure 2: A SOURCE network

3.4 Exploring Attitudes of individual writers

One can use codings of attitude to explore either attitudes of individual writers, or to explore attitudes of socially defined groupings of writers (exploring registers, genres, text-types, etc.). To explore an individual, one can either:

- look at results from a single text (seeing what stance the writer is exploiting in the particular text), or,
- look at results over a number of texts by the writer, to better see the more permanent stylistic characteristics of the writer, blurring over the particular linguistic approach taken in any single text.

One can also contrast all texts by a writer to see if different stances are taken in any particular text, although differences may be due to different contexts of writing rather than changes of projected persona.

To eliminate those Attitude tokens by other voices in the text, the study should be limited to only those tokens tagged for SOURCE as ‘author’.

The simplest (but least readily digested) way of looking at Attitude is in terms of a table of frequencies of each attitude choice, as in Table 1. Frequencies themselves are fairly useless, because texts may vary in size. Two different statistics are generally used:

- **Mean frequency:** what percentage of all the Attitude tokens have the designated feature. E.g., from Table 1, we can see that in Obama’s speech, the majority of his Attitude tokens are judgements (67.8%), with appreciation (20%) and affect (12.2%). Within judgement, he focuses on issues of propriety and tenacity.
- **Per 1000 words:** the number of occurrences of tokens with the designated feature in each 1000 words of text.

Table 1: Appraisal by Obama in the first section of his speech

Feature	N	Mean	per 1000 words
affect	9	12.2%	10.20
- in/security	4	5.6%	4.54
- un/happiness	0	1.1%	0.00
- dis/satisfaction	5	5.6%	5.67
- dis/inclination	0	0.0%	0.00
judgement	51	67.8%	57.82
- normality	5	5.6%	5.67
- capacity	8	10.0%	9.07
- tenacity	14	17.8%	15.87
- propriety	22	28.9%	24.94
- veracity	2	4.4%	2.27
appreciation	18	20.0%	20.41
- reaction	7	7.8%	7.94
- composition	6	6.7%	6.80
-social-valuation	5	5.6%	5.67

In my own practice, I tend to avoid the ‘per 1000 words’ approach, since it conflates two separate ideas: How evaluative is the writer as a whole? and How much do they favour particular Attitude types? It is possible that a writer *only* appraises in terms of judgement:propriety, but because they appraise sparingly, they may appear to use this resource less than other writers who appraise frequently. For this reason, I look at Attitude tokens per 1000 words only as a general measure of the evaluative ‘warmth’ of the writer, and then look in detail at mean frequency of each attitude feature to tell me about their appraisal profile.

Comparing the evaluative style of distinct writers is a good way to see the peculiarities of each writer. Don (2007) for instance compares the profile of Attitudinal evaluation of three contributors to a discussion list (see Figure 3). From such profiles, one can clearly see the idiosyncratic aspects of each writer (her paper explores many other ways of exploring evaluative styles of writers, both as individuals and as groups).

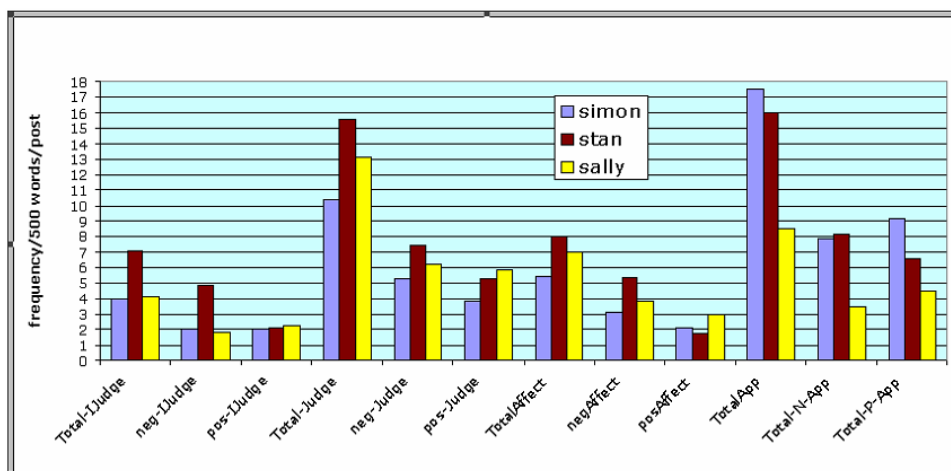


Figure 3: Comparison of three writer’s evaluative profile (From Don 2007)

Moving away from raw or relative frequencies, one can explore the evaluative style of writers using the following statistics:

- **Degree of use of Attitude resources** (per 1000 words): without looking at sub-types, just seeing how frequently the writer appraises shows how evaluative the writer is.
- **Personal vs. objective:** White (2012) makes the point that in Affect, the appreciation is something the appraiser explicitly is involved in, while in both Judgement and Appreciation, the attitude is something apparently held by the target (e.g., Affect: ‘I like it’ vs. Appreciation: ‘it is nice’). On this basis, the ratio between Affect on the one hand, vs. Judgement+Appreciation on the other can be seen as a measure of the projected objectivity of the appraiser. White noted that in film reviews, more amateur reviewers tend towards the personal side of the spectrum (‘I enjoyed it’) while more professional reviewers tended towards the objective (‘It is an enjoyable film’).
- **Ethical vs. Aesthetic:** Judgement can be seen as an area determined generally on ethical grounds (*what is she like morally?*) while both Affect and Appreciation address more aesthetic concerns (*how does it look, feel, etc.?*). As such, the ratio of the number of Judgement tokens contrasted to Affect+Appreciation tokens gives a rough measure of the appraiser’s stance as ethical or aesthetic.

- **Direct vs. sublime:** The degree to which writers use inscribed attitude instead of invoked attitude could be related to their level of directness, with those authors who use more inscribed attitude being taken as more direct, and those with more invoked attitude as more indirect. However, another factor may also influence this result: where an author assumes that the intended audience does not share the same values, they may avoid invoked appraisals, which depend for success to some degree on shared values.
- **Positive vs. negative:** the ratio of positive to negative evaluations in a single text says more about the writer's attitude towards the targets being evaluated in that text, so it would be dangerous to take this ratio of indicative of the writer's personality as a whole. However, if we examine the positiveness of a writer over a range of texts, then the pattern reveals to us the general level of positivity of that writer.

Peter White (2012) mentions that when Engagement is coded, the persona of the writer is also indicated by the degree of monoglossia vs. heteroglossia: how open are they to other voices (or are they insecure and need the support of others?). Even without coding Engagement, the openness to other voices can be roughly estimated by comparing the number of authorial vs. non-authorial Attitude tokens in the text.

Figure 4 from *UAM CorpusTool 3.0* show one means of visualising evaluative styles. It shows a number of texts plotted in terms of both personal-impersonal and ethical-aesthetic dimensions (see above). This allows us to quickly see what kind of appraisal identity the writer has (high affect: lower left, high judgement: upper right). The tool also allows the various voices in a text to be plotted against each other.

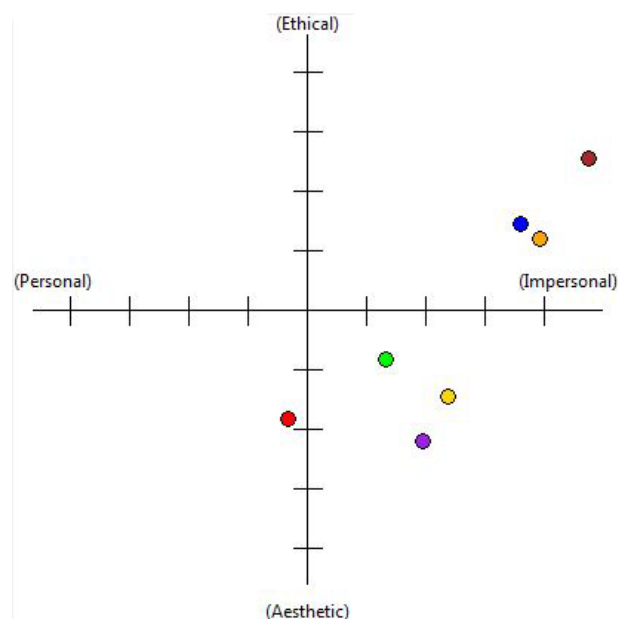


Figure 4: Various texts mapped across Ethical-Aesthetic and Personal-impersonal scales (from UAM CorpusTool)

3.5 Exploring Attitudes over social contexts

When exploring evaluative styles over socially defined contexts, there are two main approaches. In the first, the analyst codes the generic and register features of each text. In UAMCT, this would be done as a document layer, coding these features once for the whole document. The analyst can then compare the Attitude tokens of all texts with the given genre/register feature against the tokens in the remaining texts, to see which

linguistic characteristics differ significantly. For instance, we could compare attitude usage over political speeches as contrasted to other text types.

In the second approach, the analyst uses software to group together texts which demonstrate similar linguistic patterns. Then, the analyst can look for register/genre features that correspond to the grouping (e.g., one cluster of texts might correspond to news reports, and another to editorials). This approach is most useful where there may be different writing strategies possible within a writing context, which may otherwise be lumped together (e.g., different journalistic styles). For this, some form of cluster analysis is useful to identify groupings of texts. UAM CorpusTool includes Principle Components Analysis (PCA) for clustering, but Factor Analysis is another alternative.

4 Taking into account whether values are held or lacking

One problem with the ‘evaluative style’ approach is that it concerns only whether a particular attribute is used for appraisal, not whether the attribute is valued or not by the appraiser. For example, in both ‘he sticks to his principles’ and ‘he is flexible’, the writer evaluates the target *positively*, once for being tenacious, in the other for *not* being tenacious. Equally so, ‘he is stubborn’ and ‘he is unreliable’ evaluate the target negatively for either being tenacious, or not.

An author can demonstrate that they value a characteristic in two ways:

- Positive evaluation of another for holding the characteristic, e.g., *He is consistent*
- Negative evaluation of another for NOT holding the characteristic, e.g., *He is inconsistent*.

...and can show that they disvalue a characteristic in two ways:

- Negative evaluation of another for holding the characteristics, e.g., *He is stuck in his ways*
- Positive evaluation of another for NOT holding the characteristic, e.g., *He is very accommodating*.

Tables 2 shows how some Attitude characteristics can be lexicalised across these four value positions. Equivalent lexicalizations can be provided for most judgement and appreciation values, although in some cases a culture may not provide lexicalizations, reflecting cultural gaps (e.g., it was difficult to find an English term which values lack of veracity, as this is not usually valued).

Table 2: Lexicalisation of Attitude characteristics: held and lacking

		Valued	Not Valued
Judgement: tenacity	Holds	<i>resolute, reliable</i>	<i>stubborn, obstinate</i>
	Lacks	<i>flexible, accommodating</i>	<i>inconstant, unreliable</i>
Judgement: veracity	Holds	<i>truthful, honest</i>	<i>blunt, blabbermouth</i>
	Lacks	<i>diplomatic?</i>	<i>deceptive, dishonest</i>
Appreciation: complexity	Holds	<i>rich, detailed</i>	<i>extravagant, arcane</i>
	Lacks	<i>simple, pure</i>	<i>plain, simplistic</i>

I claim that one can get a clearer picture of the identity of an appraiser by seeing which characteristics the writer consistently values, and which they consistently disvalue. The categories of the Attitude network as proposed by Martin and White (2005) can be taken to represent, in a simplistic way, the ethical, moral and emotional characteristics

of human beings and the aesthetic dimensions of the human and the natural world. The above analysis will thus reveal the personal value system of the writer, at least within the current context of writing.

To demonstrate this approach to identity, look at part of a speech by Obama Barack at Cairo University in 2009:

I am honoured to be in the timeless city of Cairo, and to be hosted by two remarkable institutions. For over 1,000 years, Al-Azhar has stood as a beacon of Islamic learning, and for over a century, Cairo University has been a source of Egypt's advancement. Together, you represent the harmony between tradition and progress.

The three underlined tokens appraise Egyptian cities and institutions in different ways, the first, “timeless”, being Appreciation: Valuation, the other two probably best coded as Graduation. However, each of these three tokens implicitly evaluates the Egyptian people as tenacious. So, we have three tokens of invoked Judgement:tenacity.

This tells us something about what Obama thinks about the Egypt people. But more importantly for our present discussion, the repeated use of tenacity in positive evaluations tells us that Obama thinks that tenacity is a positive social value.

In another part of the speech, Obama demonstrates that the use of a characteristic in a negative evaluation can itself show that the writer values that characteristic:

Muslim-majority countries were too often treated as proxies without regard to their own aspirations.

Here, the underlined text is a token of judgement:propriety (insensitive), and the target: implied to be the West, is negatively evaluated for lacking propriety. So, where a voice negatively evaluates the *lack* of a characteristic, they are implicitly giving value to the characteristic. The reverse is also true: where the lack of a characteristic is evaluated positively, the writer implicitly signals that they devalue the characteristic:

He has no sense of greed.

In this case, greed, while involved in a positive evaluation, is itself shown to be considered a negative characteristic.

4.1 Corpus Annotation to find identifying values

If we are to use Appraisal Analysis to tell us which characteristic a writer (or other voice) values, it should be clear that just knowing the polarity of the evaluation is not enough. We also need to code whether the target is being appraised for the presence or absence of the characteristic.

We need thus to modify our Attitude network, adding a system to code each Attitude token as either ‘holds-characteristic’ or ‘lacks-characteristic’. Each text file in the corpus then needs to be recoded at the Attitude layer for this additional system.

Interpreting Results: once a text is annotated for this new system, we can count, for each attitude characteristic, the cases where:

- *Set 1:* the characteristic is valued (positive-eval/characteristic-held plus negative-eval/characteristic-lacking)
- *Set 2:* the characteristic is not valued (negative-eval/characteristic-held plus positive-eval/characteristic-lacking).

For each characteristic, we can expect four possible results:

- I. *The characteristic occurs nearly always in Set 1.* Conclude that the voice values the characteristic, and the more cases, the stronger the conclusion.
- II. *The characteristic occurs nearly always in Set 2.* Conclude that the voice does not value the characteristic, and the more cases, the stronger the conclusion.

- III. *The characteristic does not occur in either set.* If a reasonable quantity of text was coded, conclude tentatively the voice does not value the characteristic, as they do not use it for evaluation.
- IV. *The characteristic occurs in both sets.* Conclude that the voice is ambivalent in regards to the characteristic.

In relation to this last set, we might find cases where one set has many instances and the other just one or two. In such cases, this could be taken as evidence towards the conclusion associated with the larger set.

Reasons for ambivalence are many. In some cases, we might value a characteristic in moderation, but not in excess. For instance, parents may value bravery in their child in regards to the mending of hurts, facing a new school, etc., but do not value bravery when it leads to young kids climbing cliffs, playing with poisonous spiders, etc.

Sometimes context is important: a friend evaluates me negatively for tenacity in respect to holding my own views where she differs (*You are so stubborn!*) while she evaluates me negatively for lack of stubbornness in regards to my interactions with others (*You give in too easily!*). In such cases, the valuation of the characteristic is to some degree context-dependent, and is thus not a clear ‘persona value’ of the individual.

Another reason for seeming ambivalence is due to a lack of delicacy in the specification of characteristics. ‘Veracity’ for instance can be used to cover both honesty and candidness, and a particular writer may consider honesty good, but candidness not.

To demonstrate this approach, we use our coding of Obama’s Egypt speech, focusing only on Obama’s own evaluations. For each Attitude characteristic, we derive a value index, which reflects the degree to which the author values the characteristic:

$$\text{Value} = \frac{\text{number of positively valued tokens with this characteristic}}{\text{number of tokens with this characteristic}}$$

This index ranges from 0.0 (disvalues the characteristic) to 1.0 (values the characteristics absolutely). This index only makes sense where there are a reasonable number of tokens of the characteristic, so we only show results where 5 or more tokens were observed. See Table 3. Obama values propriety, tenacity and capacity as judgements, and social-valuation under appreciation. For instance, Obama appraised for propriety 21 times, 12 times positively, and 9 negatively. All 12 cases of positive evaluation appraised the holding of propriety, while all 9 cases of negative evaluation appraised the lack of this characteristic. So, in all cases he values propriety as a characteristic. This pattern is not obvious if one just asks whether propriety is used in positive or negative evaluations. The index is thus: 12 valued cases divided by 21 cases in total, or 0.57.

In this part of Obama’s speech, there were no disvalued characteristics. While Obama may value other characteristics, he did not demonstrate these values to a sufficient degree in this section of text.

Table 3: Obama’s valued characteristics from his speech to Egypt

	Index	Positively valued	Negatively valued
VALUED:			
propriety:	1.0	21	0
tenacity:	0.93	13	1
capacity:	1.0	6	0
social-valuation:	1.0	5	0
AMBIVALENT			
impact:	0.8	4	1
normality:	0.8	4	1

5 Exploring identity through Group Affiliation

The other way of viewing identity through Appraisal Analysis is to use the analysis to identify the people, things and ideals that the author affiliates with. We will here focus on four ways in which Appraisal can be used to this end.

5.1 Affiliation/Distancing via appraising targets

Attitude resources can be used to affiliate with or distance from other people or organisations: by favouring an entity with positive attitudinal evaluations, we voice an affiliation with them by showing we value them. In contrast, issuing a series of negative evaluations of an entity shows we are distancing ourselves from that individual or organisation e.g., *John is bad*.

In other words, we can use Attitude analysis to determine an author’s affiliation by considering the author’s targets of evaluation. Authors more often evaluate positively those they like or respect, and tend to evaluate negatively those they do not like or respect. For instance, in the following news extract, the author avoids explicitly evaluating Gingrich, but there is a definite invoked attitude of Gingrich as lacking propriety (‘pummeled’, ‘tough’, ‘blistering attack’) and capacity (‘disappointing performance’):

GOP presidential candidate Newt Gingrich pummeled front-running rival Mitt Romney as "a moderate Massachusetts Republican to the left of the vast majority" of their party, displaying a tough new tone in New Hampshire after a disappointing performance in Iowa's caucuses. Gingrich launched a blistering attack on Romney in what is essentially the home turf of the former Massachusetts governor, who owns a house here.

By negatively evaluating Gingrich and painting Romney as the underdog, the author shows his affiliation with a particular camp of the republicans, and against the Gingrich camp.

Don (2007) also looks at identity through ‘the types of targets evaluated’:

With regard to 'negotiated' identity, the focus is on targets of evaluation and the ways in which posters/writers act to evaluate sets of ideas, acts and other persons. Through evaluative acts and strategies writers 'engage' with their readers who they may project as aligning or disaligning with them. Identity in groups such as the one from which the corpus was derived is partly a function of the ways in which positioning of self and other identities is carried out and 'negotiated' over time. I refer to the results of this approach as negotiated identity.

In terms of coding to support this analysis, a ‘TARGET’ system needs to be added to the Attitude network. As with SOURCE, TARGET can provide labels for the particular

entities being appraised in the text (e.g., ‘mit-romney’). Alternatively, generic target features can be used. For instance, in Taboade’s corpus of movie and book review⁵, generic targets are used: *artist*, *character*, *reader/viewer* and *book/movie*.

Once coded, one can derive a list of the targets that each voice favours with positive evaluations, and those that they disfavour with negative evaluations. For instance, Table 4 shows Obama’s affiliations as derived from the first part of his speech to Egypt. The index ranges between 1.0 (only positive evaluations of the target) to -1.0 (only negative evaluations). This index is not trustworthy with few evaluations, so cases where the target is only evaluated 5 or less times have been removed. The target categories have been used generically, so ‘muslims’ include distinct targets who happen to be part of the Muslim world (e.g., ‘the Egyptian people’, etc.) but not terrorists. Most of Obama’s positive evaluations of himself were through Affect, e.g., *I am proud...*

Table 4: Obama’s affiliations using targets and polarity

	Index	Positively valued	Negatively valued
Affiliating:			
<i>muslims:</i>	0.88	31	2
<i>self:</i>	0.83	11	1
<i>other:</i>	0.43	10	4
Distancing:			
<i>terrorists:</i>	-0.8	1	8

So, Obama’s speech had a clear purpose: to state that he (and his people) were happy with Muslims in general, but negative about terrorists, and to emphasise that he considered these to be different sets of individuals.

5.2 Using Engagement resources to affiliate or distance other voices

A second way of affiliating/distancing using Appraisal resources involves the use of Engagement resources, and in particular, what is called ‘attribution’: ‘those formulations which disassociate the proposition from the text’s internal authorial voice by attributing it so some external source’ (Martin and White 2005:111). When a writer supports or distances themselves from the claims of other voices in a text, they also affiliate or distance themselves from the speaker, e.g., when an author says ‘Smith claimed correctly that ...’, the author is endorsing Smith’s claim, but also weakly affiliates with Smith. When the author says ‘Jones wrongly believed that ...’, the author distances himself from Jones’s claim, and also weakly distances themselves from Jones.

A single endorsement or distancing is not really enough evidence to base claims of affiliation or distancing of the source. However, if the author systemically endorses or distances themselves from the claims of an individual (or from a class of voices) then this can be taken as evidence for affiliation or distancing.

5.3 Using Attitude resources to affiliate with or distance from other voices

A third way to affiliate or distance using Appraisal resources uses a combination of Engagement and Attitude coding. An author can affiliate or distance themselves from other voices by providing these other voices with speaker positions that we would expect to be approved of or disapproved of by the reader, e.g., by writing ‘Smith stated that civilian casualties were a cost of peace’, the author assigns to Smith an attitude with

⁵ http://www.sfu.ca/~mtaboada/research/SFU_Review_Corpus.html

invokes negative propriety, and an attitude that the writer believes the expected reader would also reject.

To study affiliation in this way, we need to study the attitude tokens where other voices in the text are the source, and for each one, decide whether an average reader of the article would consider the position given to the source would be agreeable or not. It is not always a simple matter of deciding whether the evaluation is positive or negative: saying that Smith is worried by rising crime rates gives him a negative attitude ('worry'), but assigns him a position that most readers would also share.

5.4 Using graduation resources to affiliate with or distance from other voices

Martin and White (2005:94) also note that Graduation can be used for affiliation or distancing: They say that Graduations...

... also play a dialogistic role in that they enable speakers/writers to present themselves as more strongly aligned or less strongly aligned with the value position being advanced by the text and thereby to locate themselves with respect to the communities of shared value and belief associated with those positions.

6 Summary and Conclusions

This article has attempted to show how the Appraisal Theory can be used in conjunction with corpus annotation to reveal aspects of the identity of the authors of text, and also to reveal the identity assigned to other voices in the text.

I distinguished two aspects of identity that could be explored through Appraisal Analysis: firstly, identity in terms of identified social values, and secondly, identity in terms of affiliation with others.

The first of these was explored initially through evaluative style: a voice's preference for particular evaluative resources. In part, this can be used to signal identity in that the particular mix of evaluative resources corresponds to a mix typically used by some identifiable social context, e.g., with a particular social role (e.g., correspondent voice), or with a particular level of expertise (e.g., expert reviewers favouring impersonal evaluation).

I then proposed a deeper analysis of the personal 'signature' style of an individual writer by exploring which attitude characteristics are systematically valued by the writer: by taking into account whether the author evaluates the holding or the lacking of the evaluative characteristic, in conjunction with the polarity of the evaluation, one can identify those characteristics that the author values, and those that they disvalue. This type of analysis gives close insights to the identity of the author.

I then turned to analyse how Appraisal Analysis can be used to identify the people, organisations and ideas that the author values, and thus in a sense affiliates with. Here, I explored different methods, ranging from analysis of the targets of Attitudinal evaluation to a focus on the positioning of the other voices in the text.

Alongside this exploration, I have set forward a methodology for exploring these issues within corpus annotation software, detailing how to set up a coding scheme to analyse identity through Appraisal. For the most part, this involves adding systems to the Attitude network (SOURCE, TARGET, and a system related to holding/lacking characteristics). Additionally, I have explored different ways to use the attitudinal codings, mainly in terms of the kinds of statistics that can be derived from the codings that are most useful to explore the identity of a writer or group of writers.

In conclusion, I believe that Appraisal Theory, when applied through Corpus Linguistic techniques, provides a powerful means to pull useful information from text about writer

identity, not only meanings that readers subconsciously are aware of, but also messages that readers may miss.

This type of analysis could have useful impact in many areas. For instance, it could be applied to the analysis of speeches to identify underlying political values and affiliations or analysis of news to detect editorial bias. Equally so, it can be applied to corporate communications to check compliance with the company's brand values (e.g., see Delin 2005).

As we slowly move towards the automatic recognition of at least inscribed attitudes (as evidenced by the increasingly common work under the name of 'sentiment analysis'), opportunities open for more commercial applications. Already, automatic systems exist to locate recent news favourable or not to a given company, or political party. The addition suggested in this paper for identifying the core values and affiliations of writers could also be used within social media. For instance, companies such as Facebook or LinkedIn could scan the writings of their members to locate members with similar social values and affiliations, and offer suggestions for like minds to come link together.

7 References

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